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**Latin America and the External Crisis:
An Overview**

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Abstract

The international crisis of the past three years arrived when most Latin American countries were successfully adapting their policies to achieve and maintain macroeconomic stability, create a more open trade regime with fewer distortions, develop a more robust financial system along with competitive market structures, and restructure the public sector. The onset of international crisis put stress on economic policies in the regions: it resulted, in particular, in a sharp deterioration in the terms of trade, a substantial increase in borrowing spreads and a sudden reduction of capital flows. That, in turn, put pressure on current accounts and exchange rate regimes, and forced the introduction of restrictive fiscal and monetary policies.

By contrast with previous crises, this time most Latin American countries avoided policy action to seal off their economies and to introduce expansionary fiscal and monetary policies in an attempt to stabilize output. The typical response has been to introduce restrictive macroeconomic policies to reduce current account deficits and to facilitate the real depreciation that must accompany a drop in the terms of trade. A number of countries have adopted more flexible exchange rate regimes, meaning that they are targeting the rate of inflation in adopting an appropriate monetary anchor. Fiscal discipline and Central Bank independence provide the institutional underpinnings for the inflation target strategy.

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LATINAMERICA AND THE EXTERNAL CRISIS: AN OVERVIEW.

Vittorio Corbo*

1. INTRODUCTION.

During the last three years, Latin America has suffered a series of external shocks. The first shock, which followed the initiation of the Asian crisis, took the form of a drastic deterioration in terms of trade following a sharp drop in the price of primary commodities in world markets. Then, following on the eruption of the Russian crisis, Latin American countries received a second external shock, in the form of higher costs and reduced access to of foreign financing. The response to the crisis has been twofold. First, macroeconomic policies have been altered to avoid excessive increases in current account deficits. Second, additional protective measures have been introduced to ameliorate the effects of a capital flow reversal.

When the crisis came, Latin American countries were much better prepared than at the time of the debt crisis of the early 1980s, thanks to the deep reforms implemented in recent years. But this is not all. The policy response to the shocks has also been much more appropriate.

The rest of this paper is divided into four sections. Section 2 reviews prevailing conditions in Latin America when the crisis hit. Section 3 analyses the special case of Brazil, the country most affected by the crisis. Section 4 studies the main types of policy response employed to adjust to the crisis and to make the countries less vulnerable to external shocks. Section 5 discusses a set of new issues which have come under consideration as a result of the crisis: the choice of the exchange rate system; the way to implement monetary policy; and the appropriateness of introducing current account targets. Finally, Section 6 presents some conclusions.

2. LATIN-AMERICA ON THE EVE OF THE ASIAN CRISIS.

The Asian crisis found the Latin American economies in much better shape than they were at the outset of the debt crisis in the early 1980s. By the end of 1997, an important group of Latin American countries -Argentina, Chile, El Salvador, Mexico and

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Peru- had completed deep transformations of their economies. Another subset of countries - Bolivia, Brazil, Colombia, Costa Rica, and Nicaragua- had made important changes but still had a way to go. While Ecuador, Venezuela, Guatemala and Honduras were far behind. The change in economic philosophy has been radical. After pursuing for many decades economic policies based on a deep distrust of markets, heavy government intervention and isolation from foreign trade, Latin American countries have introduced policies which emphasize macroeconomic stability, competitive market structures, integration into the world economy (outward orientation) and a new role for the government.¹ These changes have given rise to a new development model according to which the government is responsible for establishing the institutions necessary for the proper functioning of a market economy, together with the provision of public goods and improving the access of the poorest groups in the population to social services.²

More recently some countries have also started to make inroads on a "second generation" of institutional and policy reforms aimed at strengthening fiscal responsibility, improving the efficiency and the quality of social services (education, health and nutrition), and improving the efficiency and the transparency of the judicial system. Moreover, some progress has been made also in the area of environmental policy.

These changes were initiated in Chile, in the middle of the 1970s, and were extended subsequently to most countries in the region. This policy revolution has resulted in a frontal attack on public sector deficits and a drastic change in the traditional import substitution-cum-government intervention model which had reigned in most of the region, from the great depression up to the debt crisis of the early 1980s.³

As a direct consequence of the policy changes, macroeconomic stability has improved during the 1990s in several aspects: the annual average inflation rate that was over one-hundred percent in the 1980's, is below 10% now, with several large economies of the region exhibiting inflation below 5% per year. Chile, before its recent short-lived recession, had a fiscal surplus for over ten years and fiscal deficits are low to moderate in Mexico, Argentina and Peru. They remain large in Brazil, Ecuador, Colombia and Venezuela. Inflation is still high in Venezuela, Colombia and Ecuador, and is accelerating in Brazil.

¹ On recent Latin American reforms see Edwards (1995), Corbo (1998b) and IDB (1996 and 1997).

²For an assessment of the emerging consensus on policy reforms, see Williamson (1989) and Corbo and Fischer (1995). For a critical view on this consensus see Baker, Epstein and Pollin (1998).

³For a review of economic policies in Latin America in a historical perspective, see Diaz-Alejandro (1983) and Corbo (1988).

In all countries, independently of the policy used to reduce inflation (exchange rate based, money based or inflation targeting), the reduction of inflation has been accompanied by an increase in the rate of growth of GDP. Thus, the observed "sacrifice ratio" was positive rather than negative. This result is not so surprising if one considers the high growth costs of the debt crisis and the extreme inflation experienced in the region during the 1980s.

Table 1
Inflation Rate (Percent)

COUNTRY	AVERAGE				
	1980-85	1986-90	1991-97	1996	1997
Argentina	335.6	1192.7	30.8	0.2	0.8
Bolivia	2249.9	68.0	11.8	12.4	4.7
Brazil	141.9	1056.9	823.6	15.5	6.0
Chile	23.8	19.4	11.9	7.4	6.2
Colombia	23.1	25.0	23.9	20.8	18.5
Mexico	56.4	75.7	20.8	34.4	20.6
Peru	97.4	2341.4	83.8	11.6	8.6
Latin America and the Caribbean	107.1	321.9	110.11	22.3	13.1

Source: Burki and Perry (1997) and IMF (1998). Computed using yearly averages.

Table 2
Non-Financial Public Sector Balance (As percentage of GDP)

COUNTRY	AVERAGE			1996	1997
	1980-85	1986-90	1991-97		
Argentina	-14.5	-6.4	-1.8	-2.9	-2.2
Bolivia	-10.3	-6.3	-3.7	-1.9	-3.4
Brazil*	-4.3	-3.9	-1.8	-3.9	-3.9
Chile	-1.2	1.9	2.0	0.7	1.0
Colombia	-5.7	-1.1	-1.5	-2.6	-3.9
Mexico	-11.3	-10.6	-0.2	-0.7	-1.6
Peru	-8.0	-7.7	-1.9	-1.2	-0.2
Latin America and the Caribbean	-8.6	-7.0	-2.8	-2.4	-2.3

* It corresponds to the operational deficit. Source: Banco Central de Bolivia (1997), Banco Central de la Reserva del Perú (1998), Burki and Perry (1997) and IMF (1998).

Table 3
Real GDP Growth Rate (Percent)

COUNTRY	AVERAGE			1996	1997
	1980-85	1986-90	1991-97		
Argentina	-1.1	0.4	2.6	4.2	8.4
Bolivia	-1.4	2.3	4.0	4.1	4.3
Brazil	2.5	2.0	3.0	2.8	3.0
Chile	2.3	6.5	7.4	7.2	7.1
Colombia	2.6	4.6	4.0	2.0	3.2
Mexico	3.1	1.5	2.9	5.2	7.0
Peru	0.6	-0.8	5.4	2.6	7.5
Latin America and the Caribbean	1.8	3.4	3.7	3.5	5.0

Source: Burki and Perry (1997) and IMF (1998).

Following the Mexican crisis of 1994, a set of initiatives was developed to avoid the repetition of similar crises. That crisis provided an early warning of the importance of strong financial systems, of avoiding the build up of short-term debt, and of avoiding large current account deficits. As a response to these concerns, countries have been improving policies and strengthening institutions related to the regulation and supervision of the financial system and for macroeconomic management. At the same time, countries altered their exchange rate policies, moving away from fixed but adjustable pegs, towards more flexible arrangements.

In the particular case of Argentina, the most vulnerable country in the region due to its monetary and exchange rate system, the financial system has been substantially strengthened. This was most necessary given that in the early 1990s, as a result of hyperinflation and with banking revenues highly dependent on the deposit base, Argentina's banking system was very fragmented and included a number of very weak banks. At the time of the tequila crisis, many banks went into liquidation or were consolidated into larger banks.

In recent years, regulation and supervision have been upgraded, and capital requirements for banks have been raised above international standards. An offshoot of this effort has been an important restructuring and consolidation of the banking system. In the

process, foreign ownership has increased substantially. Today, over 60% of bank deposits are in foreign owned banks or foreign bank subsidiaries. But this is not all. To protect the financial system from a sudden reversal of capital flow, a liquidity requirement of 20% of the deposit base -held in highly liquid international assets- was put in place. Furthermore, Argentina signed a line of credit with a group of commercial banks for an amount close to 10% of the deposit base, to be drawn against selected banking assets which would serve as collateral. The margin call requirements for this line of credit were further strengthened with the approval of a contingency facility financed by the World Bank and the IDB. Extra protection against a sudden deterioration in the external environment, which could restrict its access to international financial markets, was obtained through two large Special Adjustment Loans, totaling 4.5 billion dollars, from the World Bank and the IDB.

Chile and Peru took precautionary measures to avoid the build up of large current account deficits, with Chile, Colombia, Mexico and Peru maintaining a flexible exchange rate system. Greatest efforts have been made in the area of improving the information, regulation and supervision of the financial system. In particular, loan classification systems have been improved; currency matching of assets and liabilities has been improved; lending to related parties has been curtailed and bank capital requirements have been raised.

One development, which could spread contagion, is MERCOSUR. Due to MERCOSUR, trade interrelatedness in Latin America increased, so that a financial shock in one large country within the common market (Argentina and Brazil) may be more contagious than before. Thus, the danger of contagion is greater now than it was during the 1980s. But, as shown below, among the large countries this is a problem only for Argentina, as trade with Brazil and with Argentina is relatively small for the other countries.

3. THE SPECIAL CASE OF BRAZIL.

The economy most affected by the deterioration in the external environment has also been the most vulnerable --Brazil. Brazil's vulnerability is the result of many years of large fiscal deficits, which have resulted in a large domestic debt, with very short maturity. During 1994-1997, an exchange-rate-based stabilization strategy, which used the combination of loose fiscal policy and restrictive monetary policy, resulted in high real interest rates and a sharp real appreciation of the domestic currency-- the "Real". High real interest rates could also have reflected doubts about the continuity of the exchange-rate-based stabilization program in place up to early January of 1999.

Brazil experienced an attack on its currency in October of 1997, when the Asian crisis was gaining strength. After the crisis engulfed Indonesia, Malaysia and The Philippines, in the third quarter of 1997, Taiwan devaluated its Dollar and there were speculative attacks on the Hong Kong Dollar and the Korean Won. At the time, the Brazilian government responded by raising interest rates and announcing a program to reduce the fiscal deficit. As a result of these actions, the narrow exchange rate band system survived the attack. However, as the presidential election drew near, the promised fiscal adjustment did not take place.

The pressures on the Brazilian currency were intensified with the onset of the Russian crisis. As Brazil was unable to implement a full adjustment program in the middle of a presidential election, the attack on the currency was defended with a large loss of foreign reserves and high real interest rates. As this situation could not continue for long without creating important real costs or exhausting international reserves, shortly after the elections the authorities announced the introduction of a fiscal package. On the strength of this fiscal program, Brazil was able to mobilize 41 billion dollars of financial support as part of an IMF program.

The adjustment program supported by the IMF was supposed to restore confidence and to contribute to a substantial reduction in real interest rates. The latter, through its effects on the interest component of the budget, was supposed to make the fiscal situation more sustainable. But slow progress in the implementation of the fiscal adjustment and the conflict that emerged between the federal government and some state governors eventually made the fiscal program less credible. As a result, pressure on the currency intensified. Brazil's case comes very close to the characterization used in Krugman's first generation model of a currency crisis. That is, the fiscal fundamentals became incompatible with the semi-fixed exchange rate, which was the main anchor of the exchange-rate-based

stabilization program, causing economic agents to anticipate depreciation. Then, most likely, elements of a second generation of currency crisis set in as agents started to anticipate that the government was prone to abandon the high interest rates that were necessary to defend its exchange rate system. As the pressures on the currency developed, the government let the exchange rate go before exhausting reserves.

A very poorly implemented devaluation, with inadequate progress on the approval of the fiscal program which was the central component of the program supported by the IMF, and without a clear announcement of the monetary policy that was to follow, made matters worse. Not surprisingly, the initial devaluation intensified the speculative attack against the currency. After another substantial loss of foreign reserves, the Central Bank decided to abandon the recently modified exchange rate band in favor of a floating rate. As no program followed on the fiscal and monetary front, the currency went into a free fall, which resulted in a nominal depreciation of over 60% in just two weeks.

But to the surprise of many, the exchange rate crisis helped to mobilize enough political support to get the approval for a substantial fiscal adjustment that yielded a primary surplus of over 3.0% of GDP in 1999 and that should generate one even higher in the years 2000 and 2001. In parallel, a new team with appropriate market credentials was brought to run the Central Bank, and the foreign commercial banks renewed their short-term credit lines. This set of actions has allowed Brazil to stabilize its financial markets, halt the loss of reserves and, as a result, has started to reduce short term interest rates. It is important to recognize also that before the recent currency crisis, Brazil had made some progress toward restoring macroeconomic stability and initiating important structural reforms. In particular, barriers to trade were reduced — first unilaterally, and later as part of the MERCOSUR negotiations. Privatizations were also carried out in the steel, petrochemical, electricity generation and distribution, banking and telecommunication sectors. Of course there is much to be done to complete the restructuring of the public sector and make progress in the privatization effort. In particular, the state pension system has been abused and is now a major source of the fiscal imbalance, needing a major overhaul, which would reduce benefits or increase contributions. As pensions are extremely generous, the government, correctly, has concentrated its actions on them but the implementation of this type of political economy has not been easy, although later a major battle was won when a tax was imposed on the higher pensions.

The sharp reduction in real interest rates that has been taken place in Brazil has made the internal debt dynamics less explosive and, in the process, has reduced the risk of domestic debt restructuring.

4. THE EFFECTS OF THE CRISIS, AND THE INITIAL RESPONSE.

The external crisis has had three main effects in the region: (1) a severe shock in commodity terms of trade; (2) an income (interest rate) terms of trade shock; and (3) a credit rationing shock. In time sequence, the commodity terms of trade effect hits first, while the other two effects struck with force only after the Russian crisis. Indeed, after an initial jump in October of 1997, when the Asian crisis started to create pressures in Hong Kong, the spreads on Latin American government bonds stayed almost constant from the end of October of 1997 to the middle of August of 1998.

Table 4 presents the evolution of commodity prices, showing severe deterioration in the terms of trade; especially for oil exporting countries. Table 5 shows the stripped spread of the sovereign debt of the largest countries in Latin America. As can be observed from this table, the spreads were almost the same in late March 1997 and late July 1998. That latter date is a full year after the initiation of the Asian crisis. It was only after the Russian crisis that the spreads experienced a large jump that was almost fully reversed toward the end of the year.

Table 4:
INTERNATIONAL PRICES

	1981-90	1991-97	1997	1998
Non-fuel Products	-2.3	1.3	-0.4	-17.8
Petroleum	-4.7	-2.5	-6.1	-28.5
G5 – Manufact. Export Prices	3.3	1.1	-5.1	-3.8

Source: Global Economic Prospects, The World Bank, 1999.

Table 5:
STRIPPED SPREADS

Country	1997	1998				1999		
	31/3	31/7	28/8	28/9	30/12	12/2	12/3	7/5
Argentina	502	531	1419	882	697	742	707	578
Brazil	471	626	1451	1185	1246	1288	1247	850
Mexico	509	553	1131	1044	748	692	630	535
Poland	173	191	400	303	266	233	244	225
EMBI	507	644	1494	1177	1135	1170	1136	870

Source: J.P. MORGAN, Global Data Watch.

The first two effects result in a reduction of national disposable income. The third effect, although it also has an equivalent income loss, works through the capital account of the balance of payments, to set in motion a reduction in the current account deficit and put pressure on the foreign exchange market.

The total terms of trade effect -commodity and income- results in a reduction of national disposable income, the amount of which is a function of the size of the initial trade volumes and of the magnitude of the drop in terms of trade. By late 1997, trade deficits as a share of GDP were over 4% of GDP in Chile, Peru and Colombia. The size of those terms of trade loss was highest for Chile, followed by Peru and Mexico in that order. The income

reduction, in turn, generates a reduction in domestic absorption (consumption plus investment) through the adjustment of consumers and producers to their reduced income level. Typically, the reduction in absorption turns out to be smaller than the reduction in income and, as a result, the current account tends to deteriorate (Gavin, 1990). However, reduced access to external financing, or a deliberate decision to avoid this option to reduce vulnerability to capital reversals, led to the need to introduce measures to reduce domestic absorption. This has been the route chosen by most Latin American countries. Consequently, fiscal and monetary policies have been employed to obtain a larger reduction in the current account deficit than the one set in motion by the private response to the terms of trade effect.

Thus, in the short run, macroeconomic policies have been adjusted to control current account deficits. As current account deficits are the difference between domestic expenditures and national income, falling national income calls for policy measures which reduce expenditures rather than boosting output, as the latter type of policy produces results much more slowly. Thus, adjustment programs have been dominated by stabilization components, often with the support of the IMF and other international financial institutions.

The well-known Meade-Salter-Swan-Dornbusch model of the dependent economy illustrates that, in reducing a current account deficit, expenditure-reducing policies must be accompanied by expenditure and output-switching policies to keep internal balance (or unemployment) under control (Dornbusch, 1980, Chapter 6). A real exchange rate depreciation, which is the main switching component of an adjustment program, is also required by the loss in terms of trade.

Expenditure reduction policies have taken the form of more restrictive monetary policies and a tightening of fiscal policy all over Latin America. The latter has been accomplished through a combination of expenditure reduction and tax increases. In Mexico, a series of fiscal adjustment plans have been introduced to maintain a sustainable fiscal situation in spite of the drastic reduction in oil prices. Peru, and to a lesser extent Argentina and Chile, have also pursued more restrictive fiscal policies

Next, for a given demand adjustment, the degree of switching accomplished has been mainly determined by the exchange rate system in place. By the middle of 1998, exchange rate systems in Latin America were extremely diverse. They went all the way from the very rigid Argentinean currency board, to Mexico and Peru's flexible systems. Between these extremes, Chile and Colombia had exchange rate bands, and although Brazil, on paper, also had an exchange rate band, it was in practice using the exchange rate as the monetary anchor for an exchange-rate-based stabilization program -the "Real" plan.

In Argentina, the government tried to facilitate switching through wage flexibility, but, given the political difficulties involved in approving labor reforms, it has ended up facilitating it through a reduction in labor taxes. As non-tradable goods and services are usually more labor intensive than tradables, this policy has an implicit switching effect.

The real exchange rate depreciation which is possible to accomplish is determined by the change in fundamentals -in the short run, the demand correction and the drop in terms of trade, the flexibility of relative prices and the size of the initial misalignment. The countries that have achieved the larger corrections in the real exchange rate have been the ones in which the misalignment was larger (Chile, Colombia and Peru), the ones that suffered the largest terms of trade losses (Colombia, Mexico, Peru and Chile), and the ones that had the more flexible exchange rate system (all of the above). In the special cases of Brazil and Ecuador, the real depreciation came through an exchange rate crisis, while Chile and Colombia abandoned the exchange rate band in favor of a flexible system. In contrast, Venezuela has resisted (until now, January, 2000) a nominal devaluation of its currency by intervening in the exchange rate market.

The use of monetary policy has also varied throughout the region. In Argentina's currency board system, interest rates are not a matter of policy and are mostly determined by the operational rules of the currency board. When money flows out, the monetary base contracts and the interest rate rises.

In Chile, Colombia and Mexico, all countries with more flexible exchange rate arrangements, monetary policy follows an inflation target framework. In this framework, the target rate of inflation is the monetary anchor, and monetary and fiscal policies are geared toward achieving the inflation target. Thus, in this system, the announced target is the ultimate policy objective, and an inflation forecast, sometimes not made public, is the intermediate objective. Then, interest rates are used as the main policy instrument.⁴ In particular, when the conditional inflation forecast made with the existing policies and the expected path of the exogenous variables is above the inflation target, the level of the intervention interest rate is raised accordingly.

In contrast, in Bolivia and Peru, monetary policy follows the monetary target approach more closely. However, all countries except Argentina have used monetary policy as an integral component of expenditure reduction programs.

⁴ The interest rate that is the instrument of monetary policy can be the real rate, as in the much-indexed Chilean economy, or the nominal rate as is the case in most other countries.

In Chile, a restrictive monetary policy was introduced to reduce the size of the current account deficit and, in this way, to reduce vulnerability to a sudden reversal of capital flows. Also, after some initial hesitation, the exchange rate policy was made more flexible and the Central Bank reduced its intervention in the exchange market. Brazil, Peru and Colombia also introduced much more restrictive monetary policies.

However, policy responses have not been restricted only to expenditure and exchange rate adjustment; structural measures have also been introduced (or are in process of final approval) to make the economies more resilient to a much less favorable external environment.

In Argentina, the recently approved fiscal convertibility law- which would increase fiscal responsibility and provide for a liquidity fund to face unexpected capital reversals- should help to restore the solvency of the public sector. The project contains a series of objectives. First, the size of the government deficit should be gradually reduced, to achieve balance by the year 2002. Second, the rate of growth of government expenditures should be lower than the rate of growth of GDP. Third, a large share of the proceeds from new privatizations would be invested overseas in a contingency fund to be used, eventually, for fiscal stabilization purposes.

Brazil is in the final stages of the approval of a fiscal responsibility law that will increase the accountability of public officials and of the states. Peru just approved a fiscal responsibility law that will restrict the fiscal deficit and government spending during an election year.

In Chile -at the request of the producers' associations- the integration into the world economy has been strengthened by the promulgation of a law which reduces import tariffs. The law stipulates a gradual reduction in the uniform tariff of one percentage point per year for the next five years, to reach a final level of 6% in the year 2003. Through this initiative, the country has renewed its commitment to an export-led development strategy.

The Brazilian devaluation has brought another shock to Latin America. However, some precautionary measures have protected the region from a major contagion effect. Thus, surprisingly enough, in terms of the cost of foreign borrowing and capital reversal, the Brazilian crisis had a much smaller effect in the region than was the case with the Russian crisis. This is partly due to the fact that the devaluation had been anticipated and to the precautionary adjustment measures already in place as a response to the deterioration in the external environment and to the anticipation of a potential worsening of the Brazilian situation.

However, given the size of Brazil --twice the size of Mexico and more than twice the size of Argentina--, whatever happens in Brazil has indirect effects throughout the region. Thus, not surprising, the exchange rate crisis in Brazil resulted in a slowdown all through the region with its largest impact in Argentina. Argentina suffered both from its high trade with Brazil and from a higher cost of foreign borrowing. Trade with Brazil is only important for the full members of MERCOSUR and among them specially so for Argentina (28% of Argentina's exports are destined to Brazil, while only 6% of Chile's, 1.1% of Colombia's, 0.9% of Mexico's, 4.1% of Peru's and 4.1% of Venezuela's). Even in Argentina, the impact in the overall economy is much less than what could be inferred from the export numbers. Argentina is still a very closed economy; exports are less than 9% of GDP and, therefore, exports to Brazil are only 2.4% of GDP.

Thank to a serious fiscal adjustment Brazil was able stabilize its economy and to avoid a major crisis; furthermore, with the stabilization of the Brazilian financial markets the spreads in foreign debt started to come down again. Indeed, as shown in Table 5, after an initial jump (not shown in the table) the stripped spreads on Latin American sovereign bonds have returned to the pre-Brazilian crisis levels. With the recent recovery in terms of trade, the return of capital flows and an improved world economy, Latin America is well placed to start a recovery.

5. NEW ISSUES RAISED BY THE CRISIS.

The crisis has, however, also raised questions about the appropriate institutions that would make individual economies more resilient to external shocks and facilitate adjustment in the event of a shock. A selected set of issues is discussed in this section: the choice of the exchange rate regime; the choice of a monetary anchor; the appropriateness of introducing a separate current account objective.

5.1 The Choice of Exchange Rate Regime.⁵

In choosing an exchange rate regime, recent experience provides evidence that, for countries which are well integrated into world capital markets, there are only two feasible options: a fully credible fixed exchange rate system and different varieties of flexible system. Argentina's currency board system comes close to the first type. But even this system is still open to an adjustment of the peg. As the market is not fully convinced that the exchange rate will remain fixed, Argentina is paying the costs of having higher interest rates to compensate peso asset holders for the probability of devaluation. The premium was especially high at the time of the Mexican crisis. Even after considerable efforts in recent years to strengthen the financial system and to obtain a credit line with foreign banks, the interest rate has again been affected by the crisis in Brazil. However, its effect has been much less pronounced this time (the difference between deposit rates in pesos and dollars is close to 200 basis points).

Aware of the problem of the currency board's lack of full credibility, Argentina is at the moment considering whether to move to full dollarization. Thus, former President Menem instructed the Central Bank and the Economic Minister to continue developing a plan to enter into a Monetary Union with the US. However, the current government has decided to postpone any discussion about dollarization and to concentrate its energies and political capital in achieving a fiscal adjustment and increasing the flexibility of the labor market. However, in Argentina, support for the currency board is very strong and, except for the rigidity of labor laws, an institutional structure has been developed to make the convertibility plan more resilient to large shocks. Also, with a long history of inappropriate monetary and exchange rate policies, Argentineans are quite happy to have given up the option of having an independent monetary policy.

⁵ Following the Mexican and the Asian crises, the debate on the most appropriate exchange rate system has taken a new twist. Now the discussion is framed more in terms of feasibility than of optimality. (See in particular, Obstfeld and Rogoff, 1995 and Eichengreen, 1999).

In spite of these actions, many questions remain open with regard to the monetary arrangement that would be more appropriate for Argentina and MERCOSUR as a whole. In particular, given the high proportion of its trade with Brazil, and that its country specific shocks are much different from those which affect the US, it is unclear that a Monetary Union with the US would contribute to an "optimal currency area" a la Mundell. What is clear now is that the idea of having a common currency with Brazil, which was discussed last year as a means to improve integration within MERCOSUR, will need to wait until Brazil makes sufficient progress in stabilizing its economy.

Some have gone further and suggested that Brazil should also introduce a currency board.⁶ However, one must remember that currency boards are not a panacea. To start with, a country has to have its fiscal accounts in order and to have sufficient foreign reserves to finance the short-term monetary liabilities of the monetary system; otherwise, the system will not be credible. Furthermore, the financial system must be strong enough to be able to survive without a lender of last resort. If this is not possible, arrangements must be made for access to emergency lending from foreign commercial banks -as in Argentina- or from an external institution, most likely the FED or the ECB. Moreover, wage flexibility and labor mobility must be high enough to facilitate switching when the circumstances (i.e. a change in the macroeconomic fundamental call for a real depreciation) require one. However, ultimately, the discipline of a currency board requires that a government be ready and have the political support to live with the high interest rates and high unemployment which are an integral part of currency board adjustment dynamics. In the case of Argentina, a country with a history of abusing its monetary and exchange rate policies, a currency board has served well, since there was essentially no alternative.

For open economies with a large tradable sector in which exports are not very diversified, fixed rates are not a viable option. For this type of country, a real depreciation - when a change in fundamentals requires one- could become too costly, given that it depends on the downward flexibility of non-tradable prices. In this case, a more flexible exchange rate regime would be preferable. Indeed, the combination of prudent monetary policy and exchange rate flexibility has facilitated adjustment in most countries in the region. With capital mobility, exchange rate flexibility also leaves the door open for the use of discretionary monetary policy in response to unexpected domestic and external shocks.

Given that few countries are willing to go the avenue of dollarization, most are moving toward the use of more flexible systems. However, more flexible systems must be accompanied by the development of forward and future exchange rate markets, to enable

market participants to be able to buy protection against exchange rate volatility. Otherwise, the real costs of real exchange rate variability would be high. As countries move to the use of more flexible exchange rate regimes, they will need to make the selection of the monetary anchor more explicit.

5.2 Choosing a Monetary Policy Regime.⁷

Three basic strategies can be envisaged for the choice of a monetary policy regime to anchor inflation. The first would be fully orthodox: a money target, relying on a pre-committed path for the money supply to anchor inflation. The second, an exchange rate target, would use the nominal anchor of the exchange rate. The third is the increasingly popular use of inflation targeting, where the anchor for inflation is the inflation target itself

In all these cases, in the initial stages, the stabilization attempt would probably induce slower growth, more so in the first and third cases. The exchange rate anchor is usually first accompanied by an expansion, followed by a recession (Calvo and Vegh, 1999). In choosing between these three approaches, it is important to take into account the degree of openness of the economy and the stability of the relationship between the chosen monetary aggregate and inflation. The latter depends mostly on the stability of the demand for money. In particular, in a small open economy, the exchange rate provides an anchor for the price level through its effect on the price of tradable goods. The stability of the relationship between a monetary aggregate and inflation presents a problem in cases where there is considerable financial innovation or when there is a sudden change in the rate of inflation.

In an economy that has experienced a period of high and variable inflation, in general, the demand for money becomes very unstable as economic agents develop ways to economize in the use of money balances. And, therefore, when the rate of inflation is reduced, hysteresis effects emerge, generating a breakdown in the old demand for money relationship. In cases like these, predicting the quantity of money demanded becomes very difficult and the use of a monetary target could result in too high a cost for lower inflation. Therefore, in these cases, it could be more appropriate to use an exchange rate anchor in the initial stages of the stabilization program, to be followed later on by a more flexible exchange rate system accompanied by a monetary or inflation target. Another advantage of an exchange rate target is that it is much more easily understood by the public than a

⁶ Dornbusch, 1999; Cavallo, Davos Conference, 1999.

⁷ On monetary anchors, see Calvo and Vegh, 1999; Bernanke et al. 1999 and Bernanke, B. S. and F. S. Mishkin, 1997. On the choice of monetary anchors in Latin America, see Corbo, 1999.

monetary rule, given that the information content of the exchange rate is much more direct than the one provided by a monetary aggregate.

However, the use of an exchange rate anchor also has important disadvantages. The first is that a country which pegs its currency to the currency of another country loses the ability to use monetary policy to respond to domestic shocks (Obstfeld and Rogoff, 1995). This is not a minor cost for a country that receives a large aggregate demand shock and that has the capacity and credibility to carry out an independent monetary policy. Furthermore, with free capital movements, the use of an exchange rate anchor exposes the country to speculative attacks, attacks which could be costly in terms of the potential unemployment costs of defending the peg or in terms of the consequences of abandoning the peg when its defense would lead to a devaluation. (Obstfeld and Rogoff, 1995).

But this is not all. The fixing of the exchange rate also requires that other indexation mechanisms in the economy be discarded and that the appropriate institutional structure be developed to prevent the financial system from becoming too vulnerable to an eventual exchange rate correction. Potential problems along these lines are best illustrated by the experience of Chile in the late 1970s (Corbo and Fischer, 1994), Mexico in 1994 (Dornbusch, 1994), and the Asian countries in 1997 (IMF, 1997), when the exchange rate was used as a nominal anchor.

Another potential side effect of exchange rate fixing, with an open capital account, is undue risk taking and, as a consequence, an unsustainable expansion of credit which could result in a financial bubble, increasing financial fragility in the process (Corbo and Fischer, 1995; Edwards and Vegh, 1997; and Mishkin, 1997). This problem is illustrated by the experience of Chile in the early 1980s, of Mexico in the first half of the 1990s, and in the recent experience of Asia (Thailand, Korea, Malaysia and Indonesia). In all these cases, following the fixing of the exchange rate, the initial spread between the domestic and the foreign interest rate --adjusted for the expected rate of devaluation-- rose sharply, providing substantial encouragement for capital inflows and credit expansion. The final result was a combination of large capital inflows, an expenditure boom, and sharp real appreciation. In these cases, a sudden reversal of capital flows is all that it took to set the stage for a major crisis.

The exchange rate anchor usually takes the form of a predetermined nominal path for the rate of currency devaluation, but it could also be a fixed rate against the currency of another country. Fixed rates come in three varieties: (1) just fixed; (2) fixed within a stronger institutional framework, as in Argentina's currency board system; and (3) the abandonment of the local currency in favor of a common currency, as in the EMU, or the

currency of another country, as in Panama and Liberia. In the latter case, the probability of an adjustment in the peg (a devaluation of the local currency) is negligible.

Given the problems which could emerge from the use of both a monetary and an exchange rate anchor, in recent years some countries have moved to use a third anchor: inflation targeting. This type of monetary framework was initially introduced by industrial countries with the objective of keeping inflation close to a long-run low inflation level. New Zealand introduced the system with the latter purpose first in March 1990. It has since been introduced in Canada (Feb. 1991), the United Kingdom (Oct. 1992), Sweden (Jan. 1993), Australia (Sept. 1994), and the ECB (Oct. 1998). A variety of this system -to adjust inflation towards one-digit annual levels and eventually towards a steady-state low level- have been introduced in a series of non-industrial economies, starting with Chile (Sept. 1990) and Israel (March 1991)⁸.

In inflation targeting, the target rate of inflation serves the purpose of a monetary anchor, and monetary and fiscal policies are geared toward achieving the inflation target. The attractiveness of this system is that its effectiveness does not rely on a stable relationship between a monetary aggregate and inflation, and, at the same time, it avoids the problems associated with the fixing of the exchange rate reviewed above. An additional advantage for emerging countries is that the trajectory of the market exchange rate provides important information on the market evaluation of present and future monetary policy which plays the same role that nominal yields on long term government papers play in industrial countries (Bernanke et. al., 1999).

A well-defined inflation-targeting framework goes much beyond just setting a target for the inflation rate and requires a set of steps (Svensson, 1998 and King, 2000). First, a public announcement of a strategy of medium term price stability and an intermediate target for inflation for a period into the future in which monetary policy could affect the inflation level. Second, an institutional commitment to price stability in the form of rules of operations for the monetary authority. Third, a clear strategy of how monetary policy, through the adjustment of interest rates, is going to operate to bring future inflation close to the announced target. A full inflation target strategy usually starts from a conditional interval forecast of inflation for the period utilized for setting the target. It also has to include an operational procedure of what the central bank will do when the inflation forecast is above or below the target. The procedures should be transparent and the monetary authorities should be accountable for the objective that has been set.

⁸ See Morandé and Schmidt-Hebbel (1999) and Fry et. al. (1999).

Given the normal lags in the operation of monetary policy, the inflation target has to be set for a period long enough towards the future, such that monetary policy could have a role in determining future inflation. In practice, in industrial countries central banks announce a target for the next twelve or twenty-four months. Then, they develop a conditional forecast of inflation -on the existing monetary policy and a forecast of the relevant exogenous variables- and set a strategy and communicate to the public what they will do when the range forecast for inflation does not include the targeted value. In contrast, in emerging economies, where financial markets are not as well developed and where liquidity constraints are more widespread, there is some evidence that the lags of monetary policy are shorter (Fry et. al., 1999).

In this framework, the established inflation target is the ultimate objective of policy, and an inflation forecast, sometimes not made public, is the intermediate objective. Monetary policy, with appropriate fiscal underpinnings, is the main instrument used to pursue the target. In particular, when the conditional inflation forecast is above the inflation target, the level of the intervention interest rate is raised to achieve an increase in real interest rate with the purpose of bringing inflation to a level close to the target. One advantage of inflation targeting is that inflation itself is made the target, committing monetary policy to achieve the set target and thus helping to shape inflation expectations. However, herein also resides its main disadvantage. As inflation is an endogenous variable that depends also on factors that go beyond the stance of monetary policy (for example terms of trade shocks and supply and demand shocks), the authorities do not directly control it. As a result, it becomes difficult to evaluate the monetary stance on the basis of just the observed path of inflation. Furthermore, as monetary policy works with a substantial lag, to pre-commit an unconditional inflation target --independently of changes in external factors which do affect the inflation rate-- and to change monetary policy to bring the inflation rate back to the set target could be costly. In particular, to try to reach the inflation target, when a shock results in an (temporary) increase in the inflation rate, could be costly in terms of a severe slowdown or increased output volatility (Cecchetti, 1998). In contrast, the accommodation of an external shock could result in a loss of credibility.

To address some of these problems, several options have been proposed. First, to set the inflation target in terms of a range rather than a point estimate. Second, to set a target for core inflation rather than for observed inflation. Third, to exclude from the price index the effects of changes in indirect taxes and in terms of trade. Fourth, to set the target for a period long enough in which short-term shocks to the inflation rate do not require a monetary response (on these point see, in particular, the discussion in Bernanke et. al., 1999).

Another problem with inflation targeting has been the side effects of this policy on the exchange rate. The attempts of the authorities to control the evolution of the exchange rate could lead them to face the typical problems associated to the defense of a peg system. However, to take into account the effects of exchange rate adjustments on inflation, and to react to them is just part of the normal setting of monetary policy to try to reach the inflation target. But the effects on the trajectory of the exchange rate of pursuing a too ambitious inflation target should not be minimized. This problem could be especially acute for countries that are in the middle of a stabilization effort and have an open capital account. Thus, countries which have used inflation targeting face, at times, the dilemma that the monetary policy enacted to achieve the target could result in excessive nominal and real appreciation and large capital inflows. If real appreciation is pronounced, it could jeopardize export growth and, eventually, the sustainability of the external account. The problem here is that with two objectives, the inflation rate and the real exchange rate (or the size of the current account deficit), one needs two instruments and monetary policy provides only one.

The selection of nominal anchors in Latin America is quite wide. Bolivia uses monetary targets as the main nominal anchor and does not have an explicit target for inflation. However, in its programs supported by the IMF, there is an inflation forecast. Peru uses a monetary target which takes the form of a ceiling on the expansion of net domestic assets, but it also announces an inflation target and has been moving lately from the explicit use of a monetary target to an inflation target. Mexico, until the 1994 crisis, and Brazil, in its "Real" plan, used the nominal exchange rate as the monetary anchor. Chile, Colombia and Mexico use inflation targeting. Table 6 summarizes the selection of monetary anchors used in the stabilization strategy of a group of Latin American countries.

Table 6:
Latin American Monetary Policy Regimes in the 90s

Country	Traditional Ways		Other Ways
	Monetary Anchor	Exchange Rate Anchor	Inflation Targeting
Argentina			
Bolivia			
Brazil			
Chile			
Colombia			
Mexico*			
Peru			

* Starting in early 1998, it shifted to an explicit inflation target. The gray color indicates that there was also an implicit use of this regime.

5.3 How Appropriate is it to set a Target for the Size of the Current Account Deficit?

Traditionally, when private capital flows were rare, balance of payments problems were the result of excessively expansionary monetary and fiscal policies.⁹ In these cases, adjustment programs, usually formulated within the context of an IMF program, included fiscal and monetary reforms aimed at reducing the current account deficit to a level consistent with the amount of official capital inflows available. In the 1990s, private capital inflows became a major force, and the expenditure effects of capital inflows now mostly drive current account deficits.

However, the size of the current account deficit is still important for two reasons. First, a larger current account deficit requires real appreciation, and this real appreciation works, in many cases, at cross purposes with the export-led growth model chosen by Latin American countries in the 1990s (Dornbusch, 1980, Chapter 6). Second, as the recent experience of Mexico and Thailand illustrates, it makes a country vulnerable to a sudden reversal of capital flows. As a result of a sudden reversal, and of the policy adjustments required to adjust to this type of shock, large real adjustment costs could emerge. In particular, in the period during which the current account deficit is rising, the financial system is expanding. But, as the liabilities of the banks have a shorter maturity than their assets, a sudden capital reversal could result in severe financial problems.

Disregard for the size of the current account deficit already played a role in the Chilean crisis of the early 1980's, in the Mexican crisis of 1994, and in the recent crisis of Thailand and Malaysia.

Constraints on the size of current account deficits can also be justified by the externalities created by a sudden crisis and the information problems associated with external borrowing by a weak financial system. As a result, it appears that a self-imposed limit on the size of the current account deficit should be a basic rule of prudence. Increasingly, some Latin American countries are adopting this practice. In practice, this limit operates in such a way that when the current account deficit reaches a pre-established threshold, aggregate demand policies are tightened to reduce the deficit.

The most explicit use of a current account target is made in Chile. Since the 1990s, the now independent Central Bank has been working with two targets: a gradual reduction of inflation towards international levels and a target for the current account deficit. The current account deficit target, established in terms of normal values for the terms of trade (long term trend), has been set by the Central Bank at less than 4 percent of GDP. In

⁹ Indeed, this was the main motivation for Krugman's classic paper on currency crisis (Krugman, 1979).

practice this target has been expressed as a loose commitment to a competitive real exchange rate, given a trajectory for domestic absorption and GDP.

However, whenever the two objectives -the inflation and the current account- come into conflict, the Central Bank implicitly trades off between them¹⁰. In fact, when the inflation target has been in jeopardy, the real exchange rate has been allowed to appreciate, as capital flowed in at the set level of the real interest rate¹¹.

Peru also decided to introduce restrictive monetary and fiscal policies in late 1995, when, as a result of a domestically originated expansion, the current account deficit went above 7% of GDP.

This is an area where much work still must be done to determine appropriate deficit levels.¹²

6. CONCLUSIONS.

The international crisis of the last three years arrived when most Latin American countries were in the process of completing a major overhaul of their economic model. The new model emphasizes achieving and maintaining macroeconomic stability, the creation of a more open trade regime with fewer distortions, the development of a safer and healthier financial system, the development of competitive market structures, and the restructuring of the public sector.

A drastic reduction in public sector deficits made it possible to make substantial progress on the reduction of inflation, and, while inflation has been reduced, the rate of output growth increased. At the eve of the Asian crisis, Latin America was beginning to reap the benefits of the reforms implemented during the previous decade.

The recent international crisis put some stress on economic policies in the region. In particular, the crisis resulted in a sharp drop in terms of trade, a substantial increase in borrowing spreads and a sudden reduction of capital flows. The latter puts pressure on

¹⁰ A way out of this conflict would be to control aggregate demand through fiscal policy instead of monetary policy. The latter could be done either by increasing taxes or reducing government expenditures. In the case of Chile, the use of fiscal policy has been very limited due to political economy factors. Difficulties have arisen, first, because the government lost some credibility when it negotiated a temporary increase in taxes which then became permanent. Second, it is politically difficult to implement a fiscal adjustment for a Government that has been running a non-financial public sector surplus every year since 1986.

¹¹ There was much less possibility of conflict between the two objectives in the 1980s when Chile's access to international capital markets was severely curtailed. Then, the link between domestic and international interest rates was broken and the Central Bank could set real interest rates without affecting the level of capital inflows.

¹² For some interesting work along these lines, see Milesi-Ferreti and Razin (1998)

current accounts and exchange rate regimes, forcing the introduction of restrictive fiscal and monetary policies.

The economy most affected by the deterioration in the external environment was also the most vulnerable -Brazil. Brazil's vulnerability was the result of many years of large fiscal deficits that have resulted in a large domestic debt with very short maturity. During 1994-1997, an exchange-rate-based stabilization strategy, which used the combination of a loose fiscal policy and a restrictive monetary policy, resulted in a high real interest rate and a sharp real appreciation of its currency, the "Real". However, after its exchange rate crisis of early 1999, Brazil put in place an adjustment program that contributed to stabilize its financial market. But this is not all; the Brazilian crisis also had important negative effects in Argentina where the combination of a currency board and a rigid labor market made the adjustment very difficult.

However, in what constitutes a major difference from previous crises, this time the policy reaction of most Latin American countries has avoided action to seal the economy off and to introduce expansionary fiscal and monetary policies in an attempt to stabilize output. The typical response has been to introduce restrictive macroeconomic policies to avoid a large increase in current account deficits and to facilitate the real depreciation which must accompany a drop in terms of trade. Some countries have gone further by reinforcing the movement towards becoming an open market economy. Thus, Chile has approved a gradual tariff reduction, providing a clear signal that the opening-up process would continue, while Mexico, Peru, Colombia and Chile have introduced restrictive fiscal and monetary policies to avoid too large an increase in the current account deficit.

As an increasing number of countries has moved to the use of more flexible exchange rate regimes, there emerges the issue of the appropriate monetary anchor. Here, an increasing number of countries are moving the inflation target rule. Fiscal discipline and Central Bank independence provide the institutional underpinnings for the inflation target strategy.

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