
macroeconomía del desarrollo

Regional integration and the issue of choosing an appropriate exchange-rate regime in Latin America

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Abstract

Behind the discussion on optimal exchange-rate regimes lies the need to achieve external and internal equilibrium, and thus create an appropriate macroeconomic climate for sustained growth and development. The optimality and feasibility of exchange-rate regimes in individual Latin American and Caribbean countries must take into consideration several parameters linked to microeconomics, open macroeconomics, and political economy aspects. More recently, the discussion has incorporated the regional dimension and the possibility of joining monetary unions to the set of feasible national strategies.

According to the optimal currency area criteria, the region still does not fit all the traditional conditions, but the empirical evidence presented in the document shows a more promising picture at subregional level. It is also argued that joining a monetary union or an exchange rate coordination mechanism could improve the policy-making process and foster better macroeconomic governance at both national and regional levels. In the authors' view, the optimal exchange-rate regime should be one that truly supports and is supported by the achievement and sustainability of sound and balanced domestic macroeconomic policies in a credible institutional framework. The present inclination in favour of non-cooperative corner solutions, either full dollarization or pure free floating implemented at purely national level, is seen as shortsighted and creates the dangerous illusion of easy solutions.

Subregional cooperation offers both an intermediate option and a more coherent reference for the exchange-rate regimes in Latin

America and the Caribbean. It provides the missing link for a concrete institutional building process on which macroeconomic sustainability could be founded. The paper presents a cooperative alternative to the national corner solutions of full dollarization or pure free floating. The solution is to create a set of incentives operating in a strong and institutionalised system of checks and balances at the regional level. This cooperative arrangement would bind national policy-making to a greater goal of regional macroeconomic coordination, and avoid that circumstantial problems may affect the long-term goal of good fiscal and monetary management.

I. Introduction

In the 1990s significant changes in macroeconomic policies and structural reforms in Latin America and the Caribbean (here after referred to as LAC) led to a convergence in macroeconomic policies, objectives and instruments, as well as a clear increase in the interdependencies of these national economies on both the trade and financial fronts. In particular, as a result of financial globalization, economic policies or developments in one country produce direct impacts on financial spreads in the whole region. These transformations have been creating fertile ground for deepening cooperation among LAC countries.

Despite these interdependencies and notwithstanding major advances in promoting macroeconomic coordination in several LAC subregions, it is striking that there is no systematic, operational regional or subregional scheme to deal with these regional or subregional spillovers. Some effective steps in regional integration were taken during the last decade in the context of a general opening of market access, but almost nothing was organized on the macro-financial side. Indeed, economic policies are still totally uncoordinated and all the decisions continue to be taken in close-knit national circles without considering any spillovers at all. The clearest symptom of this is the choice of exchange-rate regimes based on strictly national considerations.

One of the consequences of this mixture of increasing macro-financial interdependencies and lack of mechanisms to coordinate policies is the disturbing picture that exists concerning national choices of exchange-rate regime.

The literature on exchange-rate regimes (ERRs) shows that a significant level of trade or financial integration between national economies reduces their potential role in smoothing out domestic economic cycles and mitigating real domestic effects of external shocks. The debate on the issue of choosing the best ERR for a region such as LAC cannot overlook trends relating to the degree and pace of integration, interdependencies and structural convergence of national economies in the region.

In this regard, the present situation of the region is characterized by two clear trends: (1) a general increase in the flexibility of exchange rates, i.e., a larger number of countries adopting floating schemes or widening the existing range for fluctuations; and (2) a significant polarization towards the corners of the range of possible systems: either pure floats or dollarization and currency boards.¹

This paper contends that some subregional cooperative *modus operandi* could offer both an intermediate and more coherent option for LAC exchange-rate regimes and the missing link for a concrete institution-building process on which macroeconomic sustainability could be founded. Thus, the purpose of this paper is to present an alternative to the corner solutions of obtaining credibility and flexibility (at the same time). We also make the case that a process of institution-building based on regional cooperation and coordination are required for this purpose.

The paper is organized in five sections, including this introduction. Section 2 briefly reviews some aspects of the literature on optimal choice of exchange-rate regimes. Due to the fact that there is already substantial literature concerning this issue, we do not claim any originality here and do not intend to make an extensive survey; the review is made only to bring up issues that will shed light on today's debate on alternative LAC exchange-rate regimes. Section 3 examines some stylized facts about trade and external financial integration within the region. The purpose of this section is to provide some empirical indication with respect to the degree of trade-related and financial interdependencies and the regional transmission of shocks that can be used in the debate on the optimal ERR arrangements from a regional perspective. Section 4 builds upon the preceding sections to incorporate the role of institutions and regional policy coordination in order to internalize region-specific externalities and achieve the best exchange-rate regimes for the countries in the region. A concrete sequencing for the implementation of our proposal is presented in a separate box. Section 5 summarizes the findings and presents our conclusions.

¹ As Fischer (2001) has pointed out, "the excluded arrangements are fixed, adjustable peg, and narrow band exchange rate systems"

II. The debate on the optimal choice of exchange-rate regimes

Economic theory is a servant of its own time; more specifically, it addresses issues normally raised by the functioning (and, often, the malfunctioning) of an ever-evolving social system. Not surprisingly, the post-war debate on optimal choices of ERRs has evolved in tandem with changes in the international financial system and the functioning of domestic economies.

The first two decades after the Second World War were characterized by strict controls on capital flows, relatively stable exchange rates, low inflation, high growth and a rapid increase in trade. In such an environment, one key issue concerning ERRs was the effects of shocks generated by changes in trade flows and by a deterioration in the terms of trade on different economies, particularly on developing economies. This was the Keynesian world of the Mundell-Fleming models (hereafter referred to as MF models).

In parallel, political efforts to increase the integration of the European economies –which culminated in the European Monetary Union many decades later– raised theoretical questions related to the potential problems and benefits of currency areas. This debate turned Mundell's early contribution on *optimal currency areas* into a key point of reference in the debate on optimal ERRs.

In the 1970s, the resumption of inflation with stagnation (stagflation) and the breakdown of the Bretton Woods system shifted the debate in a different direction. Initially, the debate continued to

focus on exchange rate-domestic prices transmission mechanisms – and thus inflation. This, together with the co-occurrence of twin deficits, was a favorite subject for the adepts of the monetary approach to the balance of payments.

But the 1970s also ushered in a period of financial deregulation in domestic economies and reductions of barriers to financial flows – a trend that would become quite explosive in the 1980s. Financial liberalization took the form of rapidly expanding financial flows among mature economies and, later on, between them and developing economies. The other interrelated facets of this process were: (i) the rapid growth of international financial markets and wealth; and (ii) a striking increase in cross-border holdings of real and financial assets (similar to what had happened in the period prior to the Second World War).

Such changes in the international ownership structure have raised another practical and theoretical issue: the fact that portfolio allocation by different economic agents in mature economies has profound effects on capital flows to developing economies and, thus, on balance-of-payments equilibrium and on domestic macro and financial stability. The debate on ERRs has become increasingly concerned with the need to mitigate the potential deleterious effects of abrupt changes in the direction of capital flows and hence with the question of ERR sustainability and credibility of domestic policies in the eyes of international holders of developing-economy assets.

The succession of financial and exchange-rate crises in the second half of the 1990s has led to a polarization of the ERR debate between what have come to be known as “corner solutions”. More recently, however, these corner solutions have shown themselves to be not so much “solutions” as “problems” for emerging economies and their regional partners, and the discussion is now entering into a new phase.

In sum, the debate has evolved as the problems in the areas of trade and finance being faced by an increasingly integrated world have changed. Of course, the issues raised by each phase of economic theorizing are still in place. In the following sections we will try to extract these overlapping issues from the evolving literature.

1. ERRs from a national economy perspective: flow and stock models

In the early literature on ERRs, the goal of setting an appropriate exchange rate was to achieve external-sector equilibrium and thus to correct current flows. In this context, exchange rates were seen as the natural instrument to mitigate the real effect of external shocks by changing relative prices (elasticity approach) under the well-known Marshall/Lerner conditions. The initial debate on ERRs thus concentrated on the role of exchange rates (relative prices between exports and imports) in adjusting and stabilizing net export and, indirectly, *domestic* flow variables – aggregate demand, output and employment.²

This approach was complemented in the 1950s by greater macroeconomic insight into the direct relationship between internal absorption and the exchange rate, which ultimately led to a monetary approach that was more focused on demand for monetary balances.³ This approach was particularly relevant to the discussion of feasible and optimal exchange-rate regimes and monetary

² As a matter of fact, Mundell (1961, p. 2) defines optimality “in terms of the ability to stabilise national employment and price levels”.

³ See Claassen (1997) for a comprehensive review of modern exchange-rate economics in open and integrated economies, and Polac (2001) for a more detailed discussion on the genesis of the monetary approach.

policies in LAC countries in the 1980s. Indeed, in countries with a recent history of high inflation, the exchange rate debate was complicated by the elusive nature of demand for (fiat) money.⁴

By its very definition, fiat money relies on the credibility of national authorities, which is another dimension of people's confidence in a currency. Confidence is a fuzzy concept, itself based on past experience and expectations. It entails building a social contract between policy makers and policy takers that, ultimately, has to be analysed in terms of political economy.

In the 1990s, two major trends changed the conventional analysis of optimal exchange rates. First, surges in capital flows once again led to the rapid growth of the debt stocks of emerging economies – particularly in Latin America. Second, the type of flows changed substantially, as initially the most significant part of these increasing flows (and debt) were portfolio flows; when such flows started to decline (after 1998), foreign investment flows became dominant.

As a result of such changes, the capital account of Latin American economies came to be heavily influenced by changes in portfolio allocation by international investors – in a way that was often independent of the need to finance the trade balance. In addition, international financial markets have become very unstable in recent years –and the phenomenon of herd behaviour has become a well-recognized feature of international finance.

These changes opened the door to the portfolio approach. Such an approach incorporates a new dimension in the arbitrage equation defined by the monetary approach, namely the optimal composition of international portfolios as a function of risk aversion (currency risk premium). These aspects have taken on an important role in determining the kinds of external constraints faced by LAC countries, ultimately influencing not only the sustainability of balance-of-payment disequilibria and exchange-rate regimes, but also the fluctuations and level of internal economic activity.

2. ERRs from a regional perspective: the optimum currency area

The literature on *optimum currency areas* (OCAs) is an outgrowth of the macroeconomics of the 1960s, but interest in it was stimulated by the discussions that took place prior to the establishment of the European Monetary Union. In the Mundell-Fleming (MF) model, then, the ERR determined the degree of freedom availability for the use of monetary policy as a response to external (real) shocks.

In a pegged ERR, a shock would be transmitted directly to the economy through the reduction/increase in international reserves and the resulting reduction/increase in the money supply –and hence, given nominal rigidities, to aggregate demand. The adjustment would take place in the form of shifts in the aggregate demand curve, adjustment in relative prices taking place only in the long term.

In the MF framework, a flexible exchange rate would permit a more flexible use of monetary policy to counteract the external shock and adjust relative prices, at the expense of higher inflation levels. In this case, inflation would be the mechanism for restoring equilibrium (“right” relative prices).

A *currency area* borrows from the two approaches, as it is defined as one where a fixed exchange rate is assumed among all participants, while a flexible ERR is maintained with the rest

⁴ As is well known, money serves basically two purposes: a means of payment and a store of value. The dissociation between these two aspects of the demand for money in LAC countries has been the source of the high degree of instability in the demand for national currency, currency substitution effects (so-called “informal dollarization”) and ineffective monetary policies. It was to control the latter factor that most countries in the region embarked upon “unorthodox” stabilization policies in the 1980s and 1990s, using nominal exchange-rate anchors to reduce inflation instead of monetary instruments.

of the world. As in any other pegged rate regime, the cost is defined as the loss of policy autonomy. The benefits are supposedly related to the reduction of transaction costs, disappearance of exchange rate uncertainty for regional trade, and the elimination of the adjustment costs of exchange rate misalignments.

In this vein, Mundell's (1961)⁵ definition is almost obvious: an OCA is a currency area for which the benefits of relinquishing the exchange rate as an internal adjustment instrument outweigh the costs of adopting a single currency in a fixed exchange regime. These criteria indicate the specific conditions under which it is advantageous for a group of economies to adopt a single currency, based on an analysis and comparison of the (microeconomic) gains of efficiency with the (macroeconomic) costs of the loss of flexibility.

The usefulness/sustainability of an OCA is often determined in terms of labour mobility, economic size and openness, similarity of production structure and the incidence (or asymmetry) of economic shocks. Deep trade interrelationships, symmetric exposure to external shocks and synchronization of business cycles increase the expected net benefits of adopting a common currency and a common monetary policy. Indeed, shocks affecting all the countries in a similar fashion, at the same point in their business cycle, do not call for a change in exchange rates. Labour market flexibility and mobility reduce the real adjustment costs when shocks and cycles are not perfectly symmetric, while the existence of fiscal compensation schemes opens up the possibility of transfers between losers and winners.

Despite their theoretical interest and the qualitative guidance they provide to decision-makers, the practical usefulness of OCA criteria is limited. In particular, they are not fully operational for decision-making purpose, as in practice they cannot be applied to derive a balance of costs and benefits (Mc Callum, 1999). Moreover, a more recent trend in the literature centres on two empirical questions that may be useful in reassessing the relevance of the above-mentioned OCA criteria.

The first one examines the actual cost for a country of losing the ability to use the exchange rate as a policy instrument and looks at the effectiveness of nominal adjustments of the exchange rate. When an economy suffers a nominal shock, adjusting parities is not an adequate instrument, and a regime with a fixed exchange rate will do better in terms of welfare (see Parrado and Velasco, 2002). Indeed, the exchange rate is potentially useful as an instrument in situations which are simultaneously country-specific, real and temporary. According to this literature, the probability of such situations is becoming smaller as trade integration reduces the significance of national borders and as stability-oriented policies curtail policy-induced shocks. Furthermore, contemporary advocates of monetary unions think that the perfect exchange-rate flexibility option is not the correct alternative when discussing costs and benefits of OCAs, because modern-day trade and financial interrelationships make exchange-rate flexibility a nonviable option (Buti et al., 1998).

The second "revisionist" trend in the OCA literature analyses the exogenous nature of the OCA criteria. As Frankel and Rose (1996) indicate, these criteria cannot be considered independently, at least in the European context that they reviewed. Regional trade integration increases business-cycle correlation and promotes new institutional initiatives that will set up a positive feedback loop for intraregional trade itself. In the words of the authors, "cyclic correlation is endogenous with respect to trade integration, while integration is also affected by policy" (Frankel and Rose, 1996, p. 5). Thus, traditional OCA criteria are not necessary conditions for policy coordination: although the concepts reflect important and interesting criteria of suitability,

⁵ McKinnon (1963) and Kenen (1969) were also important benchmarks for the literature on OCAs.

none of them is in itself sufficient, nor can any of them be dispensed with, when defining readiness to join an OCA.

3. Further considerations on OCAs

These traditional or revised OCA perspectives should also incorporate two often neglected interrelated dimensions: political economy and financial integration.

The political economy dimension of the debate on OCAs refers to the fact that economies are managed in a way that does not correspond to an optimal textbook situation. In such a second-best world, some important macroeconomic gains could be generated insofar as the formation of a monetary union entails a systemic improvement in the policy-making process (Ghymers 1999). The European example of macroeconomic convergence in the economic and monetary union (EMU) process and its mutual surveillance arrangements illustrates how the macroeconomic policy regime may move towards more credibility, transparency and stability.

The macroeconomic cost of losing monetary policy tools and imposing binding budgetary rules must be compared to the significantly higher gains brought by the ensuing monetary stability and budgetary consolidation, which in future may warrant a more flexible monetary policy and the use of fiscal policies to cushion economic shocks. Indeed, the maintenance of a common budgetary discipline creates a safety margin that allows automatic stabilizers to freely and symmetrically fulfil their anti-cyclical role (Ghymers 2001).

With respect to the second point, in the post-Bretton Woods era (that is, from the 1970s onwards), financial globalization –albeit not necessarily larger financial flows between emerging countries– has become a more important issue due to the liberalization of the capital account and the outstanding growth of financial flows. Contagion and herding have become a prominent reality, which means that financial interdependency goes beyond financial integration *stricto sensu* and that currency areas have to be analysed in a larger context than the traditional OCA criteria.

In particular, as a result of financial globalization, economic or development policies in one country will have direct impacts upon financial spreads and exchange rates in the entire geographical area as well as upon the business climate. This common component in the financial ratings of sovereign bonds, in spite of important differences in policies or fundamentals from one country to another, is a clear symptom of the emergence of a subregional reality as a result of globalization. As shown by Paunovic (2001) using a game theory framework, the increased interdependence of LAC economies during the 1990s has resulted in an increase in the welfare loss associated with having independent and non-coordinated macroeconomic policies. Indeed, because of this common component and increasing trade relationships during the 1990s, national macroeconomic stability should be treated as a regional public good.

Thus, the comparison should not be made with the unrealistic textbook case of an optimally managed economy (i.e. one that enjoys price stability and sustainable public finances) but rather with economies in which the past budgetary mistakes and the consequent rising debts and fiscal disequilibria impede the normal use of monetary policy and of budgetary stabilizers, thus obliging a country to apply pro-cyclical deflationary policies. For these economies, the acceptance of binding rules as a condition for joining a monetary union brings important advantages even if the traditional OCA criteria are not met.

These advantages include the gains in stability and credibility generated by the observance of regional rules and mutual surveillance. The significantly higher probability of recovering the full use of both monetary and fiscal policies in a regional context drastically reduces the risks of inflation and of unbalanced and pro-cyclical policy mixes, thereby paving the way for higher

growth. Of course, no monetary union automatically warrants such a credibility gain: a genuine economic and monetary union with specific budgetary discipline and mutual surveillance arrangements is required, especially in the presence of turbulent international flows of capital which increase the importance of credibility.

4. Problems with the conventional wisdom of advocating corner solutions

Although the corner solutions rely either upon elegant textbook arguments for floating, or upon pragmatic, "political-economy" ones (relating to the lack of credibility in monetary management) for backing currency-board or dollarization options, existing analyses of the institutional and structural conditions required for either extreme option to be sustainable in small open developing countries are remarkable for their shallowness. In particular, problems arise on four basic points:

1) Why have the "political economy" arguments used to justify the need to tie the hands of monetary policy makers not been applied to the questions of fiscal policy and financial regulation? One of the obvious conclusions of macroeconomic textbooks is that forfeiting the monetary instrument (as it is the case with dollarization) automatically implies reliance on a better capacity to manage and to discipline fiscal policy as well as adequate, strong and autonomous banking supervision. But this abandonment of national monetary policy has been justified by the fact that national governance is supposed to be bad. Is there any reason to believe that a country deemed to be lacking in credibility in its monetary policy owing to political or institutional factors should be automatically credible and able to control its fiscal and financial policies? On the contrary, as monetary policy is more technical, it should be easier to reform and to control than fiscal policy, which is socially and politically more complex and involves more social groups and political actors. The European Union example with the Maastricht criteria and the Stability and Growth Pact shows that, in a monetary union, fiscal policy clearly has to compensate with an additional discipline for the loss of the other national macroeconomic instrument.

Why was such a discipline –which was very difficult (or even impossible) for most European countries to reach alone (without a regional treaty)– suddenly expected to spontaneously develop in countries whose institutional weakness was such that it excluded the use of monetary policy? The example of Africa with the CFA area (a peg against the French franc whose full and unlimited convertibility is warranted by the French Treasury) had already demonstrated the danger that the acquired credibility could be used for postponing fiscal adjustment and other structural reforms, increasing external debt and "consuming" FDI resources (Ghymers 1994). Therefore, advocating dollarization for reasons of political economy (the difficulty of maintaining a credible monetary policy) seems very myopic, as the prerequisites for sustainable dollarization include fiscal and financial reforms that are even more radical than implementing a credible autonomous monetary policy.

Conversely, for most emerging economies, the ability to implement the required credible fiscal and financial policies greatly reduces the case for tying the hand of the monetary authorities. Thus the dollarization argument proves to be a conceptual non sequitur (Escaith 1999). Empirically, there is no evidence at international level that dollarized countries have had more prudent fiscal policies than non-dollarized nations or have had smaller current account deficits. (Edwards, 2001). Considering that their average growth rates were also significantly lower, this corner solution seems to lead to increased macroeconomic fragility rather than strength.

2) How could a full opening of the capital account or/and a pure float have been recommended so uniformly to recently emerging economies? How could it have been assumed that despite huge inflows of hot money –that amount to a very high proportion of GDP and M2 in the emerging economies– and herd behaviour, the markets would be able to assess properly the balance of risk and avoid dangerously disturbing the relative prices (through excessive exchange rate fluctuations or through exaggerated pro-cyclical shocks to liquidity and domestic demand)? Why were all intermediary options of capital control so dogmatically excluded despite existing success stories such as the Chilean or Colombian case? Although it was clear that the Chilean success was not due to a simple gimmick but to a comprehensive set of profound reforms, it was only well after the Asian crisis and very slowly that the Chilean option of progressive and careful opening of the short-term capital account was partially recognized as a temporary way to gain time for implementing efficient regulatory structures and/or achieving sufficient macroeconomic convergence before fully opening the capital account.

3) Why have most economists, creditors and official institutions generally excluded a regional approach, when during the 1990s significant changes in macroeconomic and structural policies led to a clear increase in the interdependencies of national economies in both trade and finance? Calls for regional or hemispheric free trade and integration agreements were not matched by similar initiatives in the macroeconomic area. There was no systematic and operational regional or subregional scheme that tried to deal with these regional or subregional spillovers, despite the effective measures for regional integration that were implemented during the past decade in the context of a general opening in market access. Almost nothing was organized on the macrofinancial side at the regional level. More balanced anchors (such as a basket of international currencies) were generally neglected, even when the economies had a diversified structure of trade. Recent developments in the international financial market since the emergence of the euro indicate that Latin American countries are diversifying the currencies in which their debt is denominated. The process of emergence of the euro as an international currency may increase the instability in its bilateral exchange rate with the United States dollar, at least during the transitional period (Miotti, Plihon and Quenan, 2002). Thus, not only the structure of trade, but also the currency composition of financial liabilities have now to be taken into account when analyzing currency anchoring strategies, reinforcing the case for balanced anchors.

4) Why the recent move of many LAC countries to inflation targeting does not consider regional framework for monitoring national targets as a superior solution to purely domestic mechanism? Indeed, inflation targeting and its application in developing countries is a promising field that has been the subject of an interesting and lively debate. A certain consensus arises among experts that this is a possible and superior regime at least in the case of high and middle-income developing countries, when the financial system is sufficiently developed and there is no fiscal dominance.⁶ Nevertheless, these authors underline the complexity of the operational issues, which must be sorted on a country-by-country basis. In particular, a crucial point is that monetary authorities should be able to resist political pressures to stimulate the economy in the short term. When this condition –one of the central issues in inflation targeting cum flexible exchange rate regimes– is imperfectly fulfilled, the peer pressure implied by a regional arrangement may fill the credibility gap.

Moreover, regional macroeconomic coordination might –as it does for trade integration– reinforce the endogeneity nature of the credibility-building process. Indeed, when the national macroeconomic and institutional settings are not too unstable, inflation targeting can be used domestically to overcome credibility problems because they increase accountability of national

⁶ Synthesizing a collection of papers recently published on the subject, Loayza and Soto (2002) conclude that, while not a magical solution, inflation targeting is a reliable alternative for countries that have the political willingness and technical capacity to adopt and communicate responsible macroeconomic policies, in connection with a flexible exchange rate.

monetary policy and targets mimic optimal performance incentive contracts (Agenor, 2002). If these implicit contracts do help in building a more favourable environment to gain degrees of freedom on monetary and exchange rate policy in sub-optimal national contexts, explicit and regionally enforced contracts should be even more effective. A flexible exchange rate regime, managed within a regional agreement and including agreed inflation targets, could be used with greater profit and better results to overcome the problems caused by national political economy factors.

In the next section we draw on the above-mentioned literature on OCA criteria to analyze some of the empirical aspects relating to exchange-rate, trade and financial integration in LAC in the 1990s.

III. Commercial and financial integration and policy convergence in Latin America

As indicated, the choice of an optimal ERR depends not only on national considerations, but also on externalities linked to the regional dimension of the transmission of shocks, whether real or policy-created. Both policy-induced shocks and the potential response to them should be analyzed from an integrated regional perspective.

The evolution of the LAC economies since the mid-1980s shows a convergence in terms of macroeconomic policies and achievement. Confronting the negative shock of the debt crisis of 1982, the necessary adjustment following the reversal of net financial resource transfers from the rest of the world and episodes of high to hyperinflation, most countries embarked upon stabilization programmes. These programmes shared a nuclear set of common objectives, strategies and instruments. The increased dependence on external finance during the 1990s also led to a reduction in the discretion of domestic policy makers to diverge from orthodox policies (see section 3.4.2).

The trend not only affected macroeconomic policies *stricto sensu*, but also brought a deeper transformation of the institutional framework via structural reforms. Trade and financial reforms are quite advanced in the region, resulting in a convergence in openness to external flows and liberalization of the internal markets. Privatization reforms, on the other hand, are more heterogeneous, some countries

having returned most of their public companies to the private sector, while in other cases, public firms still play a significant role in the economy. The fate of fiscal reform has also been uneven across the countries (see CEPAL 2001).

As a result of these trends, most LAC countries are entering the present decade of the 2000s with many shared characteristics, not only in their way of thinking about making economic policies, but also in the results –both positive and negative– of these policies. With a few exceptions, structural fiscal imbalances throughout the region have been reduced, inflation has been controlled and external deficits have been maintained within what is considered an acceptable range for emerging economies. Nonetheless, as we shall see, external vulnerability remains high at the beginning of the 2000s, and the average growth rate is insufficient to cope with the social problems plaguing the region.

Nevertheless, sharing common objectives, institutional frameworks and instruments provides a rather fertile ground for macroeconomic policy coordination. In turn, this means that in any contemporary discussion on the optimal ERR for LAC countries, all small open economies operating at the global scale, with institutional weaknesses and fragile political economies, should consider the potential benefits of regional coordination.

Whether it is optimal to integrate this dimension into the national strategies depends in part on the comparative review of their exposure to shocks, either real or financial. The first aspect to be analyzed is trade integration.

1. Commercial integration

One of the central factors in macroeconomic policy coordination and OCA is the degree of trade interrelationship between potential partner countries throughout the trade sector. This is traditionally analyzed in terms of trade interrelationship and symmetry of external shocks.

1.1 Intra-regional trade

Since the recovery from the 1982 debt crisis, trade with other LAC countries, especially within integration subregions (Andean Community, CARICOM, Central American Common Market, Mercosur), has increased faster than trade with other countries, at least up to 1997. This rapid growth is particularly significant if one considers that external trade has grown much more rapidly than domestic product (see table 1).

Table 1
TRENDS IN TRADE AND DOMESTIC PRODUCT, 1991-2001

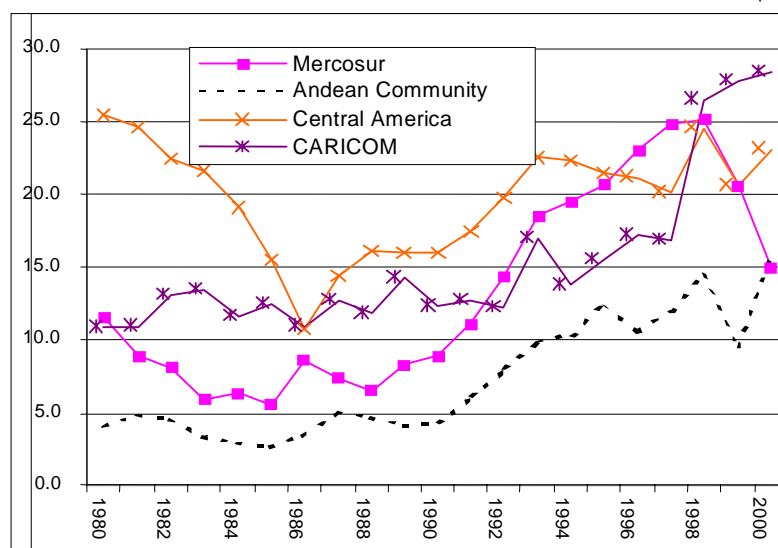
Latin America and the Caribbean (LAC)	Average annual growth rate 1991-2001 a/
1. Total supply	3.7%
Of which:	
- GDP	2.9%
- Imports of goods and services	8.7%
2. Exports of goods and services	8.5%
Of which:	
- Exports to other LAC countries	9.2%

Source: ECLAC, Preliminary Overview of the Economies of Latin America and the Caribbean, 2001.

Note: Constant 1995 prices.

Economic transactions with other LAC countries, and especially within subregional integration schemes, have thus been taking an increasingly important role in the national economies (see graph 1). This is important not only in quantitative, but also and especially in qualitative terms: while extraregional trade is composed of traditional products (commodities or processed primary products) in South America, intraregional trade is based on manufactured products, allowing national economies to diversify their export base (see Benavente, 2001). Mexico, Central American and Caribbean countries, on the other hand, have diversified their exports thanks to their privileged access to the United States market (the “maquiladora” industries) or their natural advantages for tourism.

Figure 1
INTRAREGIONAL TRADE IN RELATION TO TOTAL EXPORTS
(%)



Source: ECLAC, Latin America and the Caribbean in the World Economy 2001 (forthcoming).

This trend has two important (and potentially conflicting) consequences for the purposes of the present paper. First, it increases the transmission of shocks through trade, in the traditional OCA perspective, and thus is a factor of greater interdependence between countries. Second, it increases the potential for conflict between national exchange rate policies, as these exports consist of consumer and intermediary products that are sensitive to relative prices. Thus, devaluation by one of the regional trading partners could have a strong impact on regional trade flows, triggering regional tensions (as occurred in Mercosur after devaluation in Brazil) or competitive devaluations (as in Europe in the late 1970s). Obviously, these cross-effects are directly relevant to both the choice of national ERR and the potential gains for regional coordination.

1.2 Terms of trade

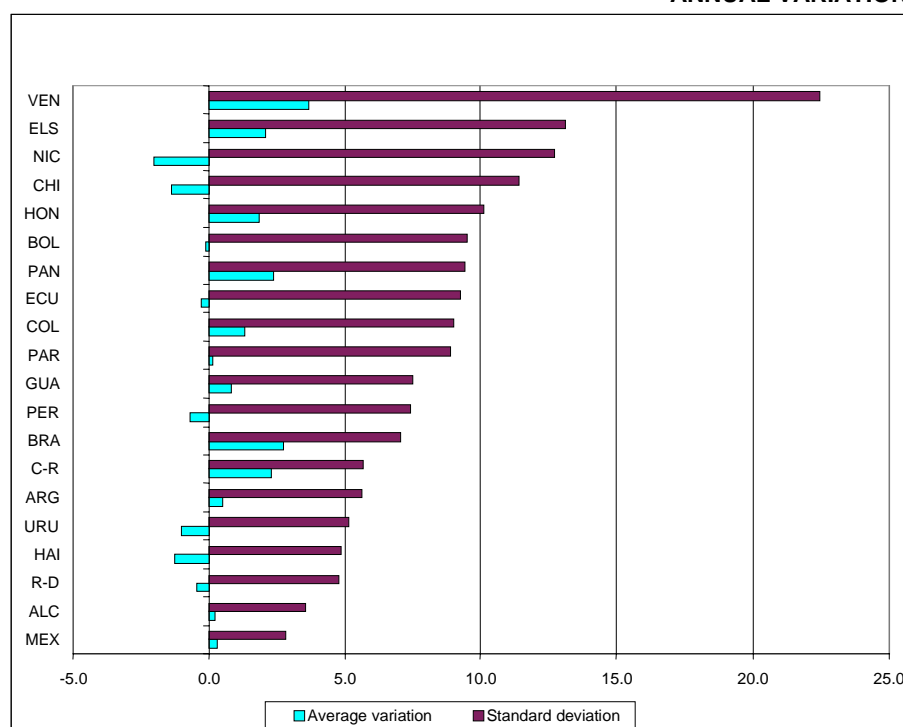
In small open developing economies, terms of trade fluctuations (variations in the prices of a country's exports relative to those of its imports) are a major source of instability. Structural characteristics make export prices very volatile (because of the high proportion of commodities) and there is little capacity for substituting imports internally (because of their higher technological content), even when their relative prices increase. Non-transitory shifts in relative prices (deteriorating terms of trade) are apparently more damaging for national income, but short-term fluctuations are perhaps more damaging, as they increase systemic uncertainty and diminish the

capacity for sound decision-making. The latter are also more relevant when it comes to macroeconomic policy coordination.

As shown in graph 2.a, the situation of each country has been quite different over the past ten years in terms of trends⁷ or of volatility. As an annual average over the 1991-2001 period, negative and positive shifts were reasonably well-distributed. Out of a total of 19 countries, eight suffered negative shocks and eleven suffered positive ones. This resulted in a small positive annual average of 0.2% for the region as a whole (the result is higher if one does not consolidate all exports and imports in a single regional aggregate, but takes for the region a simple average of each country. In this case, the average gives 0.6% annual).

In contrast, volatility is very different from country to country, with standard deviations ranging from a low 2.8 in Mexico, which has the advantage of a diversified export structure, to as high as 22.4 in Venezuela, a mono-exporter of oil. The volatility for consolidated exports is low for the region as a whole, 3.6 when all exports are consolidated, but reaches 8.9 if computed as a country average.

Figure 2a
TERMS OF TRADE, 1991-2001
ANNUAL VARIATIONS



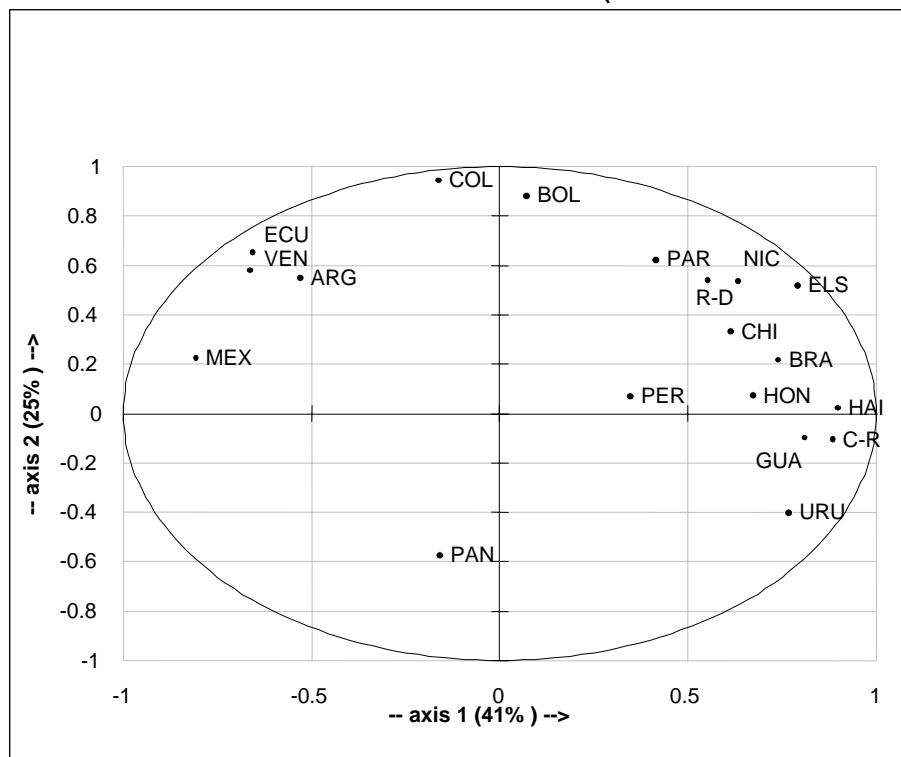
Source: Authors' construct, based on ECLAC data.

Looking at the correlation between countries, one notes that most countries in the region share a common positive interdependence, while a small group evidences diverging behaviour. This is best seen from graph 2.b that shows the clustering of LAC countries according to a breakdown of the principal components of their terms of trade variations. On the first two axes, that explain jointly 65% of total variance, one may note a first cluster of countries in the N-W quadrant,

⁷ The term "trends" is used here in the sense of tendency, and does not refer to what statisticians may understand by deterministic trends (e.g., in contrast to random movements).

composed of Ecuador, Venezuela, Argentina and Mexico. These are oil-producing countries. Panama is isolated because of its specificity as a processing and transit zone.

Figure 2b
TERMS OF TRADE, 1991-2001
CORRELATIONS CIRCLE ON AXES 1 AND 2 (65% OF TOTAL VARIANCE)



Source: Authors' construct, based on ECLAC data.

Except for Colombia and Bolivia, and to a lesser extent Peru, all other LAC countries are clustered into a compact group on the West part of the graph. This cluster includes all countries in the Central American Common Market and almost all countries from Mercosur, with the exception of Argentina. This means that the countries from these two integration areas share the same (short-term) trends for terms-of-trade variations, which is an important basis for coordinating a regional response to common external shocks. The situation of the Andean countries is more diversified from this point of view, because of their respective specializations in oil exports (Ecuador and Venezuela, but also Colombia) or in other minerals (Bolivia, Peru).⁸

1.3 Effective Exchange Rates

Exposure to common terms of trade shocks and stronger intraregional trade should lead to greater co-variation of effective real exchange rates (ERERs). Indeed, the ERER for an economy is calculated taking into account the evolution of its bilateral exchange rates in relation to each of its trading partners, correcting for differences in the respective domestic rates of inflation and weighting for the relative importance of each trading partner in a country's total trade.

The ERER is a widely accepted measure of short-term macroeconomic competitiveness. As such, it is an important indicator to monitor in any trade integration scheme: when the ERER rises (decreases), the reporting country gains (loses) competitiveness with regard to its (weighted)

⁸ Albeit the recent exploitation of large gas fields in the latter countries may give them an export profile somewhat closer to those of their oil exporting partners.

average trade partner. Obviously, when regional partners account for a significant share of external trade, variations in neighbouring countries' exchange rates (or internal prices) will greatly affect the overall trade competitiveness of each country.

This merely quantitative and mechanical effect is compounded by the potentially greater price elasticity of intraregional trade. Because intraregional trade in Latin America is more intensive in manufactured goods, demand is potentially more sensitive to changes in relative prices than the goods exported to the rest of world. In the case of Latin America (especially in South America), exports to the rest of the world are mainly primary products, whose prices are set internationally. Firms participating in intraregional commerce are in general smaller than primary product exporters,⁹ and more sensitive to transitory changes in relative prices.

In the following graphs, for each subregion (Mercosur, Andean countries and Mesoamerica) the evolution of the real exchange rate for each country is shown in relation to (i) its regional (Latin American) partners and (ii) the United States economy. The latter has two very distinct impacts on LAC economies. The first is on trade competitiveness with the rest of the world, either for exports to the United States economy or for those commodities priced internationally in United States dollars (for example, oil or minerals). The second one is mainly financial, as most of the external debt and part of the domestic one is denominated in, or indexed to, the United States dollar. In several countries with a recent history of hyperinflation, even non-tradable goods and services may be indexed to the dollar to same degree.

Graphs 3 A and B show a sharp contrast between Argentina and Brazil on the one hand, and the other southern cone countries on the other. The evolution of the regional exchange rates for Argentina and Brazil is symmetric (an increase in one means a decrease in the other by 2001), and the Argentine peso is significantly overvalued with respect to the Brazilian real. This resulted in a strong advantage for Brazilian products in relation to Argentine products in bilateral trade.¹⁰

Other Mercosur and associated countries (Paraguay, Uruguay and Chile) did not show such a trend and their regional competitiveness remained basically stable over the 1992-2001 period. Nevertheless, after 1997 and because of the effects of the Asian and Russian crises, all currencies registered a real devaluation with respect to the United States dollar (albeit due to a favourable inflation differential in the Argentine case).

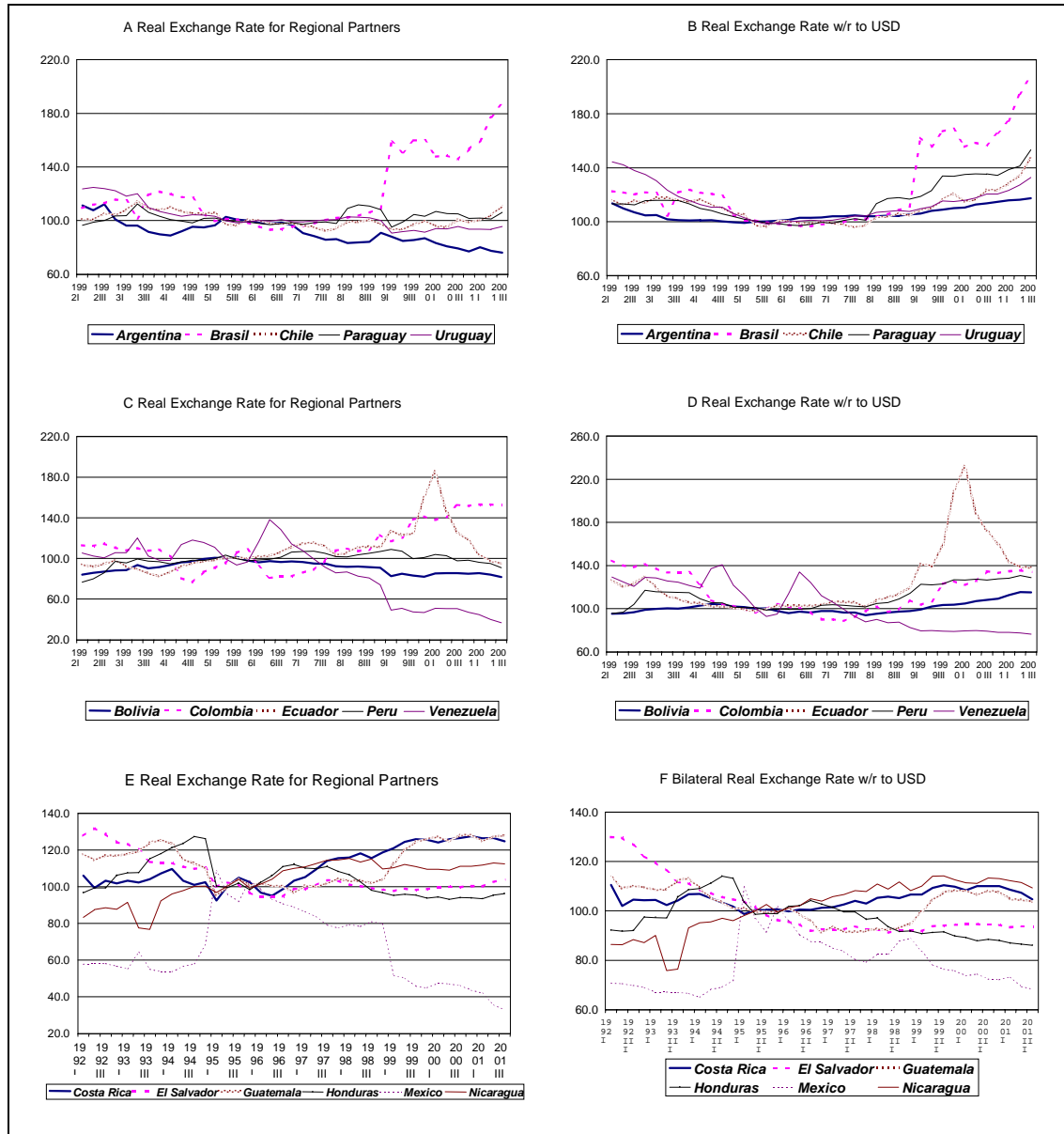
Although the pattern is less obvious in the Andean case (see Graphs 3. C and D), real exchange rate dynamics in that subregion are also dominated by two countries, Colombia and Venezuela, which show symmetric variations. The Ecuador case is due to internal factors, and the changes in its regional competitiveness closely follow the evolution of the bilateral real parity with the United States dollar.

Within the Central American sub region (Graph 3.E), Costa Rica and Guatemala show a common trend of gaining exchange rate competitiveness in relation to El Salvador and Honduras in the post-1998 period. Nevertheless, the latter group did not lose too much of its regional competitive advantage thanks to the steady revaluation of the Mexican peso after 1996 (the break in the trend observed for the peso in the first quarter of 1999 is due to the devaluation in Brazil, which is an important trading partner for Mexico, particularly for cars and other vehicles and parts).

Thus, in the medium term and for at least half of the countries considered, the primary evidence indicates that there is a strong interrelation of the relative evolution of regional effective real exchange rates. This relationship among ERERs may be more closely assessed for a shorter time frame by looking at the inter-country correlation coefficients obtained for quarterly variations.

⁹ This is not always the case, especially for traditional agricultural products. Exporters are sometimes small firms (coffee in Central America, banana in the Caribbean).

Figure 3
EFFECTIVE REAL EXCHANGE RATES



Source: Authors' construct, based on official and IMF data.

In the following, correlation coefficients between LAC exchange rates were calculated for the quarterly variations of four categories of real exchange rate: bilateral with the United States economy, effective with regional trading partners, effective with non-regional trading partners (except for the United States) and the effective exchange rate for all trading partners. Only contemporary correlation coefficients were calculated thus capturing only the direct and most observable effects. Trading partners are weighted by their exports to the reporting country.

The correlation coefficients obtained for the EREER with regional partners are the most interesting in the present case, as they reflect the intensity of the shocks passed from one LAC

¹⁰ When Argentina devaluated its currency in January 2002, this relation was reverted. For an update on the diverging evolution of bilateral and effective exchange rate in the region, see Chapter 1 in ECLAC (2002b).

country to the others through the exchange rates, either by trade or by other causes. They are clearly a prime indicator of macroeconomic integration. When there are close trade relationships within a subregional integration scheme, a positive impulse in one country (a gain in exchange rate competitiveness) should result in a negative one in the regional trading partners.

By construction, because of the symmetry of trade relationships, the sum of the correlation coefficients is close to zero when considering all the LAC countries that are considered in the calculation of the regional ERER. But this need not be the case in subregional integration schemes, unless trade within the respective subregions is a major proportion of the trade with all LAC countries: the closer and more exclusive the trade relationship within an integration scheme, the stronger the symmetry and the sum of positive and negative variations tends more closely to zero.

On this basis, the Mercosur and Andean countries are closer trade associates than the Central American ones: the average ERER correlation coefficient among regional trading partners (i.e., subregional partners but also other LAC countries) tends to zero over the 1993-2001 period for the two South American associations, but is 0.3 for the countries of Central America. This high residual value is due to the effect of Mexico, a large LAC trading partner for CMCA countries although yet not a member of their common market.

As a matter of fact, part of the interaction analyzed through the behaviour of regional ERERs may be due to a third, external, factor to which all countries in the region react simultaneously (an external shock of large magnitude, such as the Asian and Russian crises of 1997-1998, for example). Such interaction with a third common factor has been increasing during the 1990s, as evidenced by the behaviour of the average bilateral US\$ exchange rate correlation coefficients, which are higher for the 1997-2001 period (0.15) than for 1993-1996 (0.5).

To filter out this noise, the correlation coefficients obtained for real exchange rates with the US\$ were subtracted from the results obtained with the regional ERER. An index was constructed using the sum of the absolute values of the results obtained for each country, normalized by the total across countries. (see figure 4)

As expected, the larger LAC countries (Argentina, Brazil and Mexico) are those showing greater interaction with the rest of the LAC region. Yet, irrespective of their size, Mercosur countries have a larger regional ERER index than other LAC countries (except for Guatemala and Venezuela). Despite the filtering process used, the index remains subject to “spurious” correlation effects¹¹ affecting the results and great care should be taken not to draw definitive conclusions.

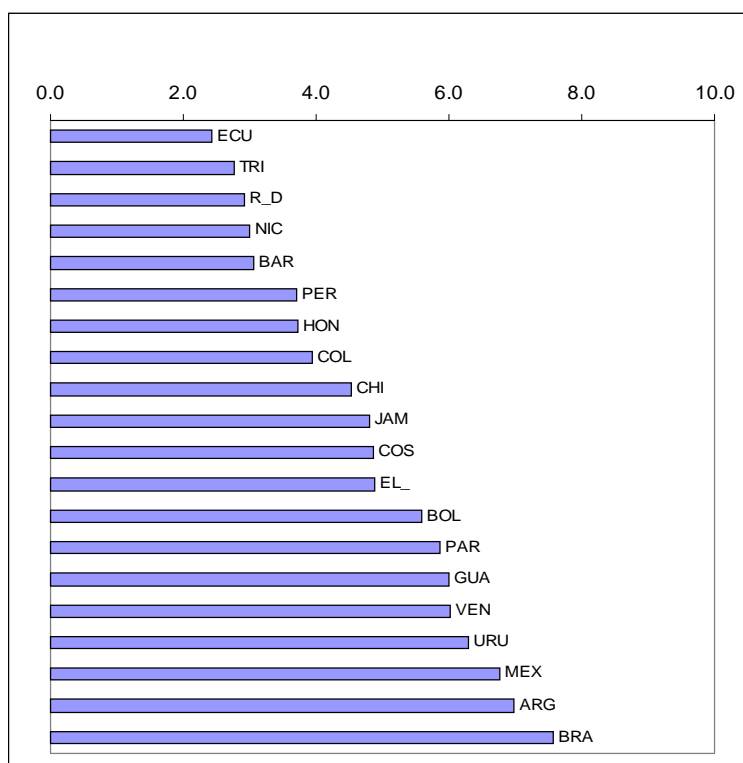
Another conclusion may be drawn from the ERER with non regional trading partners. It is striking that (i) most elements of the correlation matrix are positive and (ii) many have a high value, in contrast with the regional ERER and the bilateral US\$ tables. It appears that most LAC countries share a common trend with respect to non-US\$ monies (basically European currencies and the yen in our sample). This is easily explained considering that *de facto* or *de jure* these economies belong to the dollar area, and thus tend to share the same exchange rate fluctuations with other international currencies.

Finally, the histograms of the ERER annual correlation coefficients confirm these results (see Figure 5.). These graphs compare the observed distribution of frequencies with the normal one.

¹¹ For example, higher international oil prices can affect the nominal exchange rate of oil exporting countries, such as Venezuela, and the internal rate of inflation of importers, thus affecting simultaneously the ERR of both exporters and importers even if they do not have close economic relations.

Figure 4

REGIONAL EXCHANGE RATE INTEGRATION INDEX



Source: Authors' construct (see text for methodology)

Graph B (LAC countries) is clearly multimodal, showing that the transmission of shocks as indicated by ERES fluctuation is not randomly distributed. In particular there is a secondary peak around the 0.5 value. This probably indicates the existence of a cluster of countries sharing close ties (for example, within a close regional integration arrangement). The C quadrant (US\$) is slightly bimodal, the main peak being centred on the zero value (no common co-variation), with the secondary one coinciding with the mean and indicating for a large subset of countries a common behaviour with respect to the United States currency. Graph D (Other countries) shows that most LAC countries share a common trend with respect to international currencies other than the US\$: The shape of the distribution is rather symmetric and the mean is significantly positive.

2. Internal economic cycles

In the previous sections, we looked at the transmission of shocks via terms-of-trade or exchange-rate channels. In view of the high external vulnerability of the region, these shocks would be expected to have an impact on short-term growth dynamics. In the present section, we will look into the coincidence of the “real cycles” within the region.¹²

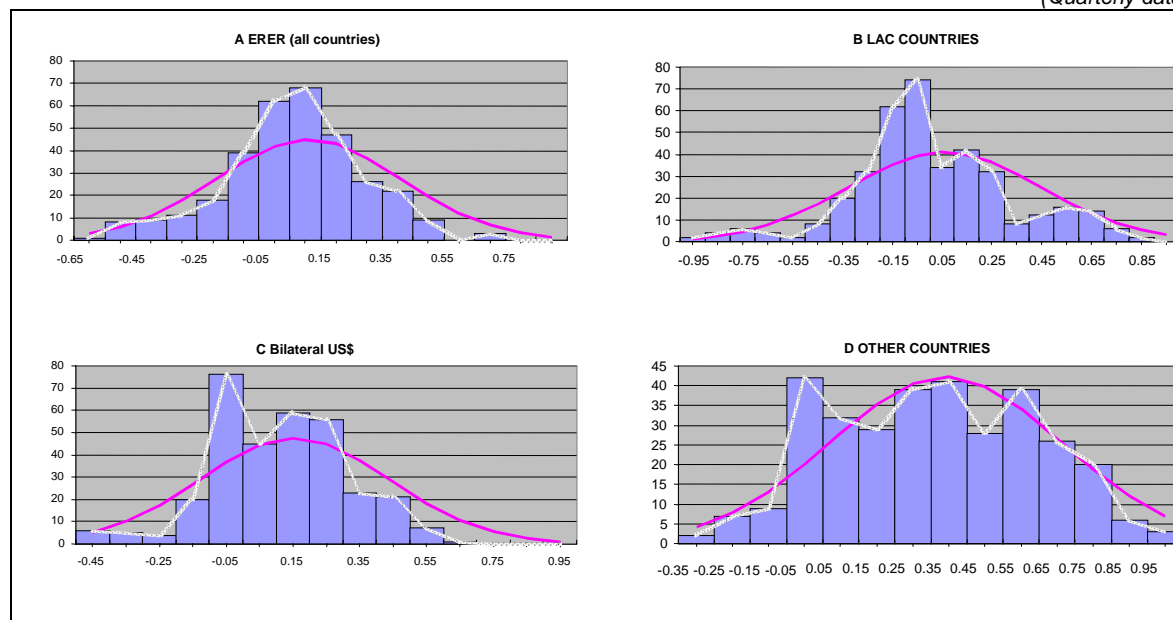
Two set of indicators are used, one being the quarter-to-quarter GDP growth rate, and the other the size of the output gap, calculated by reference to a medium-term tendency obtained by smoothing real GDP time series, using the standard Hodrick-Prescott filter.

¹² Real cycle should be taken here in common of GDP fluctuations around an observed trend.

Figure 5

LATIN AMERICA AND THE CARIBBEAN: REAL EXCHANGE RATES CORRELATION BETWEEN COUNTRIES

(Quarterly data)



Source: Authors' construct based on ECLAC data.

Tendencies for GDP annual growth using the filtered series capture the medium-term trends observed during the 1990s. Figure 6 shows two different dynamics at the beginning of the present decade. The low-growth subset was composed of South American countries severely hit by the 1997-1999 crisis that affected many emerging economies. Mexico, Caribbean and Central American countries were able to escape this crisis thanks to their closer links to the booming United States economy and lesser dependence on exports based on primary products. When the USA, together with other industrialized economies, eventually entered recession in the second semester of 2001, this difference vanished.

The analysis of short-term GDP fluctuations confirms this heterogeneity. Analyzing the evolution of the quarterly GDP, one sees that there is little correlation across the region as a whole. A very interesting pattern emerges however when looking at the situation within each of the subregions. Not only is the correlation higher when calculated within each subregion, but it is also increasing over time (see table 2).

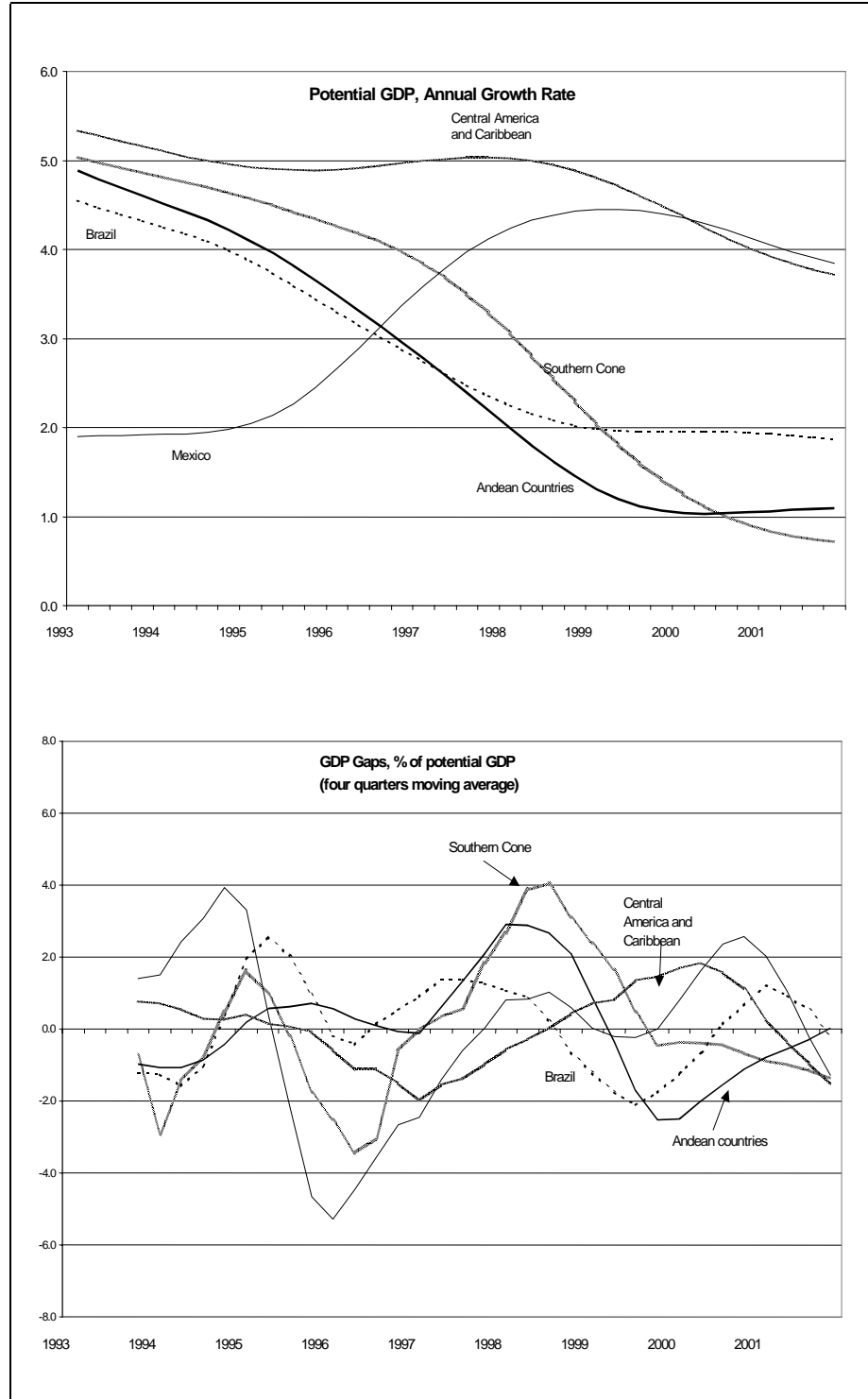
This indicates that during the 1990s, LAC countries tended to cluster around common subregional patterns. This is quite an interesting feature considering that the correlation of business cycles across countries is an argument in favour of macroeconomic policy coordination and optimum currency areas.¹³

This higher correlation in growth rates does not clearly translate into a coincidence of the real cycles within subregions, as measured by the correlation coefficients for output gaps. Even when restricting the period to the most recent past (1998-2001), where GDP correlation coefficients within subregions are higher, subregional member countries do not show synchrony in their cycles. Indeed, the clusters obtained using output gaps do not naturally coincide with subregions; in practice, countries within subregions do not pass simultaneously through peaks and

¹³ Albeit not a necessary one if one takes into consideration the endogeneity of these OCA criteria, as we already mentioned in the introduction.

dips, which makes it more difficult to reach a common agreement on the timing of short-term macroeconomic policy. Nonetheless, a loose subregional pattern emerges when looking into a more detailed clustering, for example five categories, as in table 3.

Figure 6
POTENTIAL GDP AND OUTPUT GAPS



Source: Authors' construct based on ECLAC data

Table 2

QUARTERLY GDP VARIATIONS: INTER-COUNTRY CORRELATION COEFFICIENTS
1994-2000

	Correlation within each subregion			Correlation within LAC region
	Average correlation within:			Average
	Mercosur	Andean Countries	Meso-America a/	
Period averages:				
Total 1994-2000	0.12	0.09	0.13	0.12
- 1994-1996	0.11	-0.06	0.10	0.12
- 1998-2000	0.25	0.22	0.00	0.10

Source: Authors' calculations on the basis of official data.

Note: a/ Mexico and Central America.

Table 3

CLUSTERED COUNTRIES USING OUTPUT GAPS, 1998-2001

Group 1	Group 2	Group 3	Group 4	Group 5
Costa Rica	Argentina	Paraguay	Dominican Republic	Colombia
Chile	Bolivia		Uruguay	Ecuador
El Salvador	Brazil			Venezuela
Guatemala	Peru			
Mexico				

Source: Authors' calculation based on quarterly data.

3. Financial flows and financial interdependency

Even though financial integration among LAC economies has not increased substantially in the 1990s, financial interdependency has. This is the result of the globalization process and has to do with at least three factors: first, supply factors which determined the rapid shift in flows of capital from developed economies to LAC; the growth of the dependency and vulnerability of LAC economies to such flows; and third, structural similarities of domestic financial markets in LAC which lead foreign investors to see them as substitute assets in their international portfolios.

3.1 The nature of financial integration

In the second half of 1980s and throughout the first half of the 1990s, the spectacular growth of financial markets in the developed economies opened a window of opportunity for Latin America. The rapid return of capital to Latin America was much more a phenomenon related to changes in monetary and financial markets in developed economies¹⁴ than genuine changes in the *fundamentals* of the economies in the region.¹⁵

¹⁴ For a more detailed description of the changes in the financial systems of mature economies, see inter alia BIS (1986), Franklin (1993), Feeney (1994), Helleiner (1994), and Bloomstein (1995). For an analysis of the impact of such changes on capital flows to Latin America, see Studart (2002).

¹⁵ As Kregel (1999, p. 1) puts it: "One cannot help but notice that the rapid rise in the importance of global capital flows appears to be simultaneous with the most recent decline in the share of US commercial banks in the assets of all financial institutions operating in the US, and that both of these events occur after the breakdown of the Smithsonian agreement that signaled the final collapse of

Nevertheless, this reversal has had effects on all the main macroeconomic developments in the region in the 1990s. After one decade of balance-of-payments constraints leading to very poor macroeconomic performance and high inflation in Latin America, the possibility of attracting voluntary foreign capital appeared again. It did not take much theoretical background or international evidence to conclude that, as long as international reserves were sufficiently high, exchange-based stabilization programs, based on *pegged exchange rate regimes* and commercial liberalization, would be very effective in reducing inflation in the LAC context of high inflation inertia.

This “window of opportunity” was taken up by many economies of the region. Financial deregulation—the opening up of the capital account and the internationalization of the domestic financial system allowed a rapid reduction of the achievement of lower inflation and won political support from both governments and multilateral institutions. The other side of the process was also expected: the expansion of dollar-denominated liabilities and assets. Thus, for a large number of countries in the region, the process of *policy-induced dollarization* resulted in significant positive outcomes in the first half of the 1990s, as it encouraged a reduction of inflation and further enhanced the trends of increasing capital inflows into the region. The process became a cumulative circle although but not necessarily a virtuous one.

The intensity of this circle proved to be a double-edged sword in the second half of the 1990s. From the onset of the East Asian crisis, the deterioration of confidence on the part of foreign investors was reflected in the need to maintain even higher levels of interest rates. This in turn led to the growing financial imbalances in domestic public and private sectors, while the imbalances in relative prices, and hence in the trade and services accounts of the balance of payments, persisted.

Ultimately, the growing emerging-market crisis hit the region, beginning with the contagion of the East Asian financial crisis and culminating with a speculative attack in Brazil—an attack that led (initially) to a chaotic process of devaluation of the *real*. The pressures on Brazil subsided and the price and output effects were far less drastic than expected (by the most sceptical analysts). Nevertheless, the devaluation of the *real* brought a severe misalignment of exchange rates with some of Brazil's important partners in the region, especially those in the Mercosur bloc (see Graph 7 in the previous section, and Studart and Hermann, 1999).

As occurred in East Asia, the pressures for competitive exchange devaluation became significant in some countries. As the recent experience in East Asia and in Europe in the 1970s and 1980s again indicates, a process of competitive devaluation in the region could have substantial inflationary effects, without avoiding the negative output effects that normally follow a process of devaluation, thus jeopardizing the whole initial strategy for participating countries. Due to the degree of *dollarization* of domestic assets and liabilities in countries such as Argentina, and Uruguay—to mention just two—devaluation would also be devastating for their domestic financial systems. Thus at the end of the process, not only would the country—in the best case—be in the same initial condition, but also confidence among regional partners and the development opportunities offered by regional trade would be destroyed. Furthermore, financial instability, as is well documented, tends to have long-term negative effects on macroeconomic performance. As shown by the evidence in Latin America—not to mention East Asia and other regions—the significance of financial shocks has, at least since the 1990s, increased substantially.

attempts to save the Bretton Woods System. From that date, international flows of capital have played an increasingly important role in determining the behaviour of the global economy”.

3.2 Financial interdependency

In the terms of the analysis so far, financial interdependency is the result of the fact that international investors hold increased LAC stocks of financial assets, issued both domestically and in the international financial markets. Given that the portfolio allocations of such investors are highly determined by their expectations concerning the whole portfolio, changes in their mood often generate shifts in the flows to developing economies and their markets. This implies a high correlation between domestic asset prices and country risks as determined by the spreads of sovereign debt instruments.

In Latin America, this interdependency is on the one hand clearly seen in the fact that seemingly national financial crises affect the overall spreads charged on sovereign bonds issued by the whole region. This is indicated by the figure below which presents the spreads on sovereign LAC bonds in relation to United States Treasury bonds (weighted by their maturities). The first striking feature to emerge from an analysis of this graph is the high correlation of such indexes among countries with substantially different fundamentals. The second is that at times of crisis, these correlations tend to increase substantially (as occurred in the 1994 Tequila crisis, the 1998 Russian crisis, the 1999 Brazilian crisis and the current Argentine crisis).

As regards domestic financial assets, one good indicator of financial interdependency is the correlation between changes in stock market indices in economies with considerably different market fundamentals. That this correlation is significant can be seen from the graphs below.

The stock indexes from Argentina, Brazil, Peru, Venezuela, Chile and Colombia do present trends similar to those of the spreads presented above: not only do they move very closely together, but their correlation tends to increase during periods of external crisis. Another interesting aspect that emerges is that from the 1998 Russian crisis not only does the correlation seem to have increased significantly, but there has also been a convergence of the average LAC index and the average Asian indexes – two regions that are known to have completely different macro- and microeconomic fundamentals (remember that stock indexes should in principle reflect the fundamentals of the listed companies they represent).

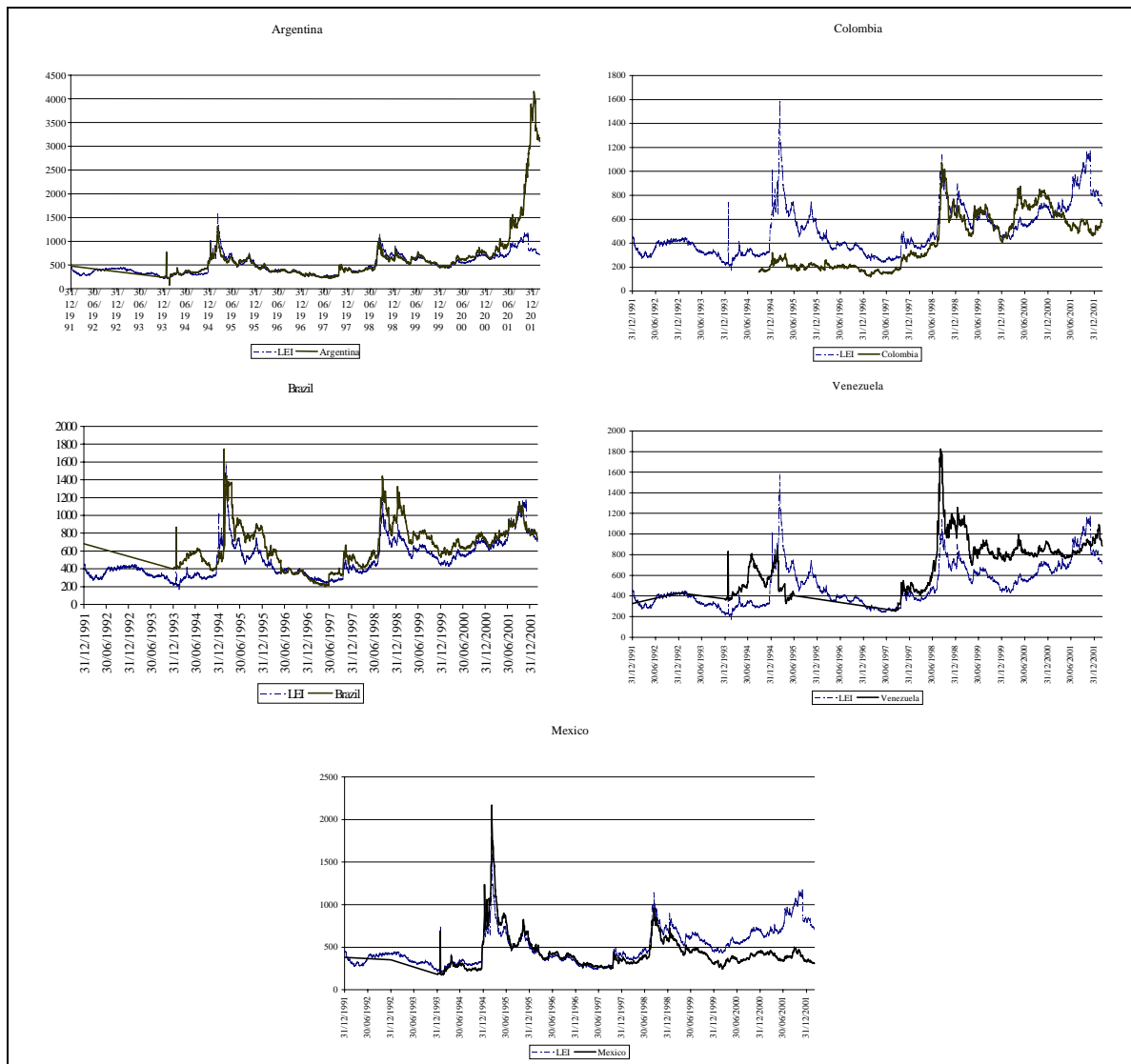
These figures indicate that the level of financial interdependency among countries in the region at the beginning of the 1990s was quite significant, and tended to increase rapidly in periods of crisis. Even though there is a trend to such correlations decreasing, at present they continue to be significant.

If we cross these data with the increase in the dependency of financial flows on the financing of the balance of payments in these economies, we begin to have a wider picture.

The table clearly shows two trends in the period covered. Initially, from 1990 to 1994, the growth of private capital inflows increases rapidly, leading to a deterioration of the current account - this has to do with the exchange rate revaluation and loss of competitiveness that followed this process. Despite the growth of exports (including interregional trade, as seen above), the growth of imports was higher, leading to an increasing deterioration of current accounts until 1998.

The reduction of flows to the region in 1998 led to the structural adjustments that in general provoked a reversal in the trend of net exports – as exports increased much more rapidly than imports. Nevertheless, the accumulation of external debt related to the capital surges of the early 1990s led to an increasing demand for finance for interest payments and debt amortization. The dependency on future capital inflows, and hence the financial interdependency between these economies is therefore likely to remain strong in the near future.

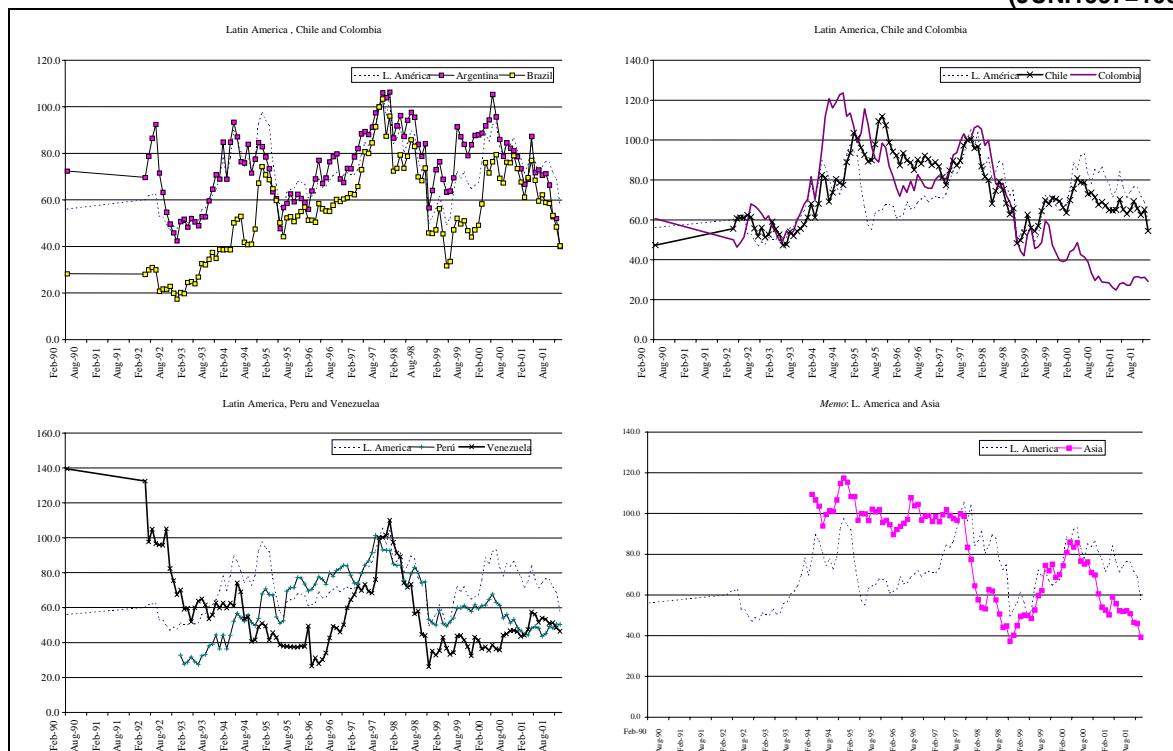
Figure 7
PREMIUMS ON GOVERNMENT BONDS: LAC AVERAGE (LEI) AND PREMIUMS FOR SELECTED LAC COUNTRIES (DEC-91 TO MAR-2002)



Source: Authors construct based on data from JP Morgan.

Such increasing dependency has led to a situation where domestic policy makers have less discretion in affecting key macro-financial variables – including exchange rates and interest rates. It is true that another important change has been observed in the structure of the flows: there has been a decline in portfolio investments from 1998 onwards and the role of FDI as a residual source of external financing has increased. It is also true that such flows are more stable than portfolio flows. Nevertheless, the high levels of external debt ensure that domestic policy makers avoid abrupt changes in the overall return of foreign investment – either by consistently avoiding continued real exchange rate devaluations and/or declines in dollar-deflated returns on domestic assets.

Figure 8
COMPARED STOCK MARKET INDEXES IN SELECTED LATIN AMERICAN ECONOMIES AND ASIA
(JUN.1997=100)

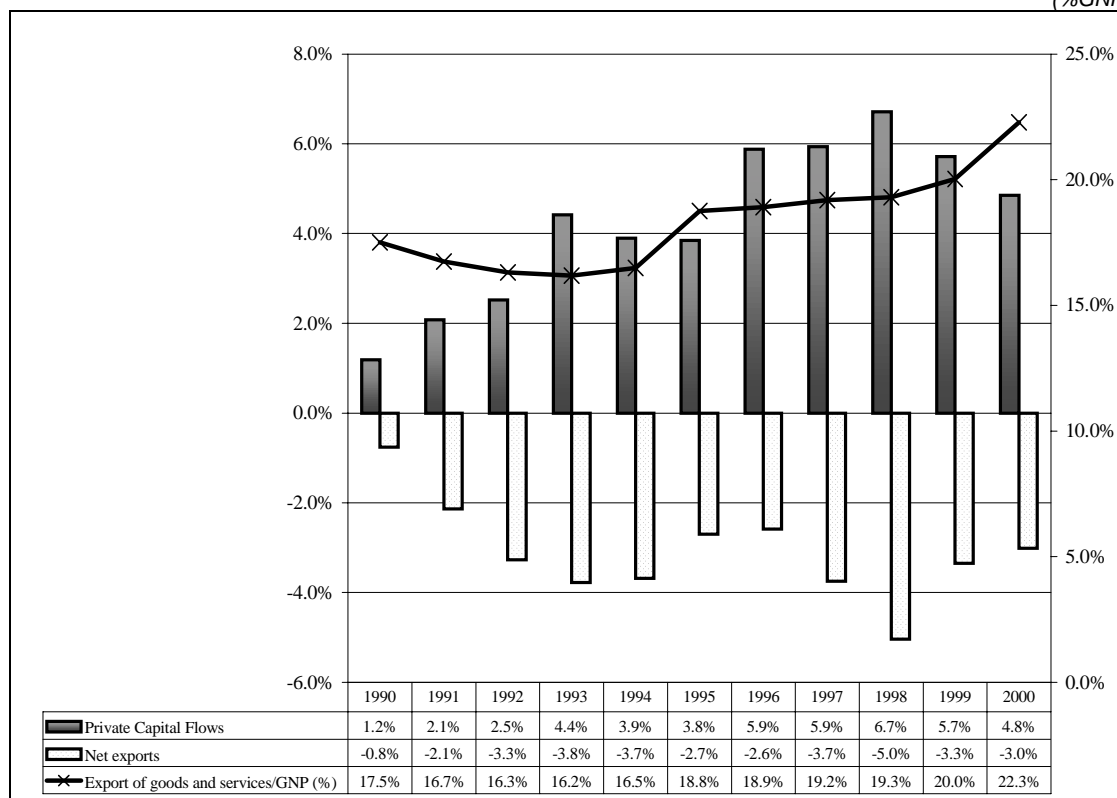


Source: Authors construct on ECLAC database.

Albeit of a global nature, this trend was especially consequential for emerging economies, and for the LAC countries in particular due to their above-average dependence on external finance. As the recent global economic slow-down has showed, LAC authorities have found hard to reconcile fluctuation in liquidity with effective stabilization policies, leading to the implementation of pro-cyclical macroeconomic policies. Industrialized countries had much greater maneuvering room for adopting more active policies. The differentiated access to counter-cyclical macroeconomic policies is emerging as another dimension of the asymmetries between developing and industrialized countries that characterize the global order. Strengthening the regional dimension, in particular by coordinating macroeconomic policies, has a key role to play in addressing these issues (ECLAC, 2002).

In sum, these stylized features of the trends in commercial and financial integration of the region make LAC a very particular case in the debate on an optimal ERR. Shocks and expectation-building are increasingly global in their nature, and pure national response are generally unable to provide a satisfying response due to the macroeconomic vulnerability that affect most LAC countries. The advance made in regional integration during the 1990s provide a basis for confronting those global challenges from a sub-regional footing. Building on such stylized facts we can briefly review the current debate before moving to an analysis of the possible solutions to the challenges faced by the region in choosing an appropriate ERR.

Figure 9
CAPITAL FLOWS, EXPORTS OF GOODS AND SERVICES AND NET EXPORTS
 (%GNP)



Note: Net exports = exports of goods and services less imports of goods and services.
 Elaborated by the authors based on data from ECLAC

IV. Institutions, coordination and ERR

The combination of the two previous sections showed the need to extend the debate on the optimum ERR to the institutional aspects and to the regional dimension. The thesis we sustain here is that linking the two through the gradual development of coordination among subregional partners offers a concrete solution both to exchange-rate regime (EER) issue and to the institutional caveats or weaknesses in Latin America.

Considering the criticisms of corner solutions, importing some aspects of the European experience and giving due weight to political economy arguments, leads us to argue that there is a clear case for regional cooperation in the macroeconomic field in LAC, especially for EER. More specifically, in a situation where macroeconomic stability is a regional public good, but is difficult to achieve through cooperation in view of the well-known “prisoner dilemma” (Ghymers 2001, Paunovic, 2001), an appropriate macroeconomic mutual monitoring scheme designed for the regional or subregional level is a superior systemic solution for the LAC compared to dollarization or independent free-floating. The main argument in favour is that it might offer an opportunity to compensate for the lack of credibility and anchoring of national exchange rates and policies, without tying blindly the policy-makers’ hands but by creating mutual checks and balances. By triggering the institutional-building process that is necessary for any sustainable EER for the LAC, it would contribute decisively to the progress of regional integration and the triggering of a higher sustainable growth path.

1. The case for regional coordination

The regional option is not a panacea and should not be abused. No initiative is guaranteed success by virtue of being regional. However, in the macroeconomic field, there are clear spillovers to deal with whilst the regional option is not actually used. Economists should therefore be more aware of the powerful regional dynamics and political economy that were behind the convergence process in the EU. We consider that LAC could find in the as yet unexplored regional (i.e. geographical subregional) dimension the missing tool to compensate for most of their intrinsic lack of monetary and fiscal credibility and to resolve the apparently impossible equation of the optimum EER for LAC.

In order to be able to deliver both credibility and flexibility at the national level, a regional arrangement must essentially include a strong and transparent scheme for mutual monitoring of national monetary, exchange-rate and fiscal policies, backed by appropriate incentives and sanctions. Such a scheme implies a full respect of the subsidiarity principle, not just with regard to State sovereignty, but also with respect to constitutionally autonomous public bodies such as central banks and auditors' courts. There are thus some institutional requirements. We argue that this is a realistic option for LAC since it does not require any big changes but a progressive self-validating practice building upon what is already in place in the different subregional groups of nations (Mercosur, CAN, CACM, CARICOM).

Under the condition of being transparent, technically consistent, and institutionally resilient, a macroeconomic cooperation at the subregional level could have much more credibility than purely national rules such as "fiscal responsibility laws" or a "monetary independence law", or dollarization options (such as currency boards), while also offering the advantages of flexible exchange rates.

By imposing an institutional discipline from outside - a supranational subregional set of transparent monetary and fiscal objective rules - a subregional macroeconomic monitoring activates the same principle of tying politicians' hands as dollarization does, with some advantages and disadvantages.

The advantages are as follows:

1. All macroeconomic policies are covered and not just the monetary creation process.
2. There is no obligation to import an inappropriate US monetary policy stance. With dollarization, the radical abandonment of monetary policy undermines the higher credibility that it supposedly has owing to its irreversibility or the high cost of abandoning it insofar as it exposes the economy to a pro-cyclical or unbalanced policy mix.
3. The combined effect of the two previous advantages is to provide the group and each of its member states with the additional flexibility of being able to tailor adequate rules and policy stances to each country-specific situation or any cyclical position,
4. It reduces the room for discretionary policies, but without being obliged to opt for a rigid peg. On the other hand, it preserves the much needed flexibility of the exchange rates but reduces the possibility of non-cooperative policies at the subregional level.
5. The most significant advantage is the explicit and more complete integration dynamics that could be triggered by choosing more realistic partners for regional integration. A subregional arrangement provides the required opportunity for internalizing the spillover effects of national policies and designing a common coherent policy answer to the challenges of globalization.

Except for some specific geographical cases, choosing the USA as an integration partner does not, on purely economic ground, guarantee such an integration dynamics.¹⁶

This combination of advantages means that it would be possible to keep both the same gains as those of dollarization without paying for its rigidity and exogenous nature, combined with the same flexibility gains as in floating without the same degree of risk of instability and overshooting.

However, the main weaknesses or disadvantages are as follows:

1. The absence of pre-existing anchor inside the subregions (such as the mark in Europe) and the lack of consensus on a clear set of macroeconomic rules;
2. The absence of credibility or a positive reputation for the subregional dimension;

Except for the small countries of Central America that could use the dollar as an anchor, the two previous disadvantages are amplified by the complexity of a macroeconomic monitoring scheme for public opinions, in a situation where private sector expectations, public policy transparency and visibility are key factors in building up and maintaining economic stabilization.

2. A concrete proposal for regional coordination in LAC

Taking into account both the above advantages and weaknesses, the solution requires a specifically organized consensus-building machinery, transparency and simplicity in the rules-setting process and their enforcement. Contrary to the *a-priori* view, this does not imply revolutionary changes or institutional big transformations, but rather introducing a radically cheap, new method for creating the required checks and balances, countervailing powers and open public debates.

This step, as we shall see, involves only a very minor institutional change with the creation by subregions of small independent technical assessment bodies as complements to the existing committees or groups in each subregions. All these subregions already have the technical and institutional basis for monitoring collegially the national policies: Mercosur and CAN created in June 2000 (GMM)¹⁷ and June 2001 (GTP)¹⁸ respectively the technical groups of policy-makers in charge of convergence and coordination of policies, while they also have the regional decision-making level through their respective Ministerial Councils and joint meetings with the Governors of central banks. The Central American States have also their regional decision-making level with the Council of ministers of Economic Integration, which includes the Governors of their central banks¹⁹.

The basic idea is to strengthen and guarantee national policy credibility by completing the existing sub-regional level with a new, independent tool able to focus public attention upon, and to spur technical monitoring and collegial assessment of national exchange rates and macroeconomic policies. For macroeconomic policies, the existing deficit of credibility and transparency implies a radical, "fresh" approach which gives priority to the open professional debate, independent

¹⁶ This scheme does not close the door to extra-regional alliances (e.g., with the North American economies or Europe), at the contrary it could make the negotiations easier.

¹⁷ In Mercosur, GMM is the *Group for Macroeconomic Monitoring*, and is composed by the top officials from Ministries of Finance and Economy, together with their peers from the national Central Banks;

¹⁸ In the CAN, GTP is the *Permanent Technical Group* of top officials from the same kind of origins, plus the macroeconomists peers from the General Secretariat of the CA, in charge of preparing the meetings of the "Consejo Asesor" (Council of Ministers of Finance and Economy, plus the Governors of Central Banks).

¹⁹ At the technical level, the Central Banks created in 1974 the Central American Monetary Council, whose task is to implement the Central America Monetary Agreement that came into force on 1974. This Council constitutes an effective network dealing with coordination amongst peers from the Central Banks. However, the Central America region does not have a joint-group for gathering central bankers with their peers from the Ministries of Finance and Economy.

assessment and to local origin and sensitivity. This corresponds to the same basic idea as the proposal of Eichengreen, Haussmann and von Hagen (1999) for creating Independent National Fiscal Councils, but with two significant improvements, first making them regional and not only national, and second giving them more scope by extending the formula to the monitoring of monetary and exchange rate policies.

Specifically, this means the need for the creation of a **two-tier sub-regional system**, in order to improve credibility by triggering a positive dynamics of open debates able to create market and public opinion reward or sanctions for the national policies:

1. At the official level: national policy-makers meeting as a collegial policy group for the subregion concerned, first the preparatory and advisory group of official "technicians" i.e. the "*Group of Official Macroeconomic Monitoring*" (**GOMM**) which consists of the macroeconomists from the national policy authorities that is generally the top technical officials of national finance Ministries and Central Banks. Second, the decision-making body or the Minister level, for taking decisions on technicians proposals or advises
2. At the technical countervailing power level: a subregional technical "*Group of Autonomous Macroeconomists*" (**GAM**), consisting of a few independent and recognized macroeconomists in charge of permanent regional monitoring of exchange rates and national macroeconomic policies.

The independent GAM would have the technical responsibility of proposing the specific subregional methods, criteria, and targets, and producing regular assessment reports on the exchange-rate and macroeconomic development of the subregion, its national components, and policy measures. It would submit all of its output first to the official **GOMM**. The latter would debate the proposals and assessments and prepare in presence of the **GAM**, recommendations for the decision-making body (the **CMCB**, "*Council of Ministers and Central Bankers*"), which would issue a policy recommendation report.

In order to ensure a fair balance of power, the GAM would have the warranted option of issuing as an annex its own recommendations and comments on the Council's recommendations and to organize public hearings with the medias and the international macroeconomic and financial community.

In such an institutional framework, the interplay between the official macroeconomists and the independent ones allows for spontaneous "*checks and balances*" and an automatic, credible surveillance exercise. This regional method is expected to generate a higher level of credibility, flexibility and stability in the decision-making process than would be achieved by remaining alone with any of the corner solutions.

Our proposal is to suggest to each subregion to adapt this two-tier regional system of mutual surveillance by developing **two inter-linked basic activities**:

- (1) to progressively design and implement a ruled-based subregional scheme for macroeconomic convergence with a view to reach a *Regional Monitoring Arrangement* (**RMA**), which would progressively establish the supranational rules and quantitative convergence criteria, and
- (2) to monitor and assess exchange-rates development with a view to reach a monetary cooperation or a non-binding *Regional Monetary System* (**RMS**), which would merely be the common framework in which exchange rates of each participating country are monitored, discussed and agreed upon at the sub-regional level, according to the general regional principle of "mutual concern" for exchange-rate credibility and stability.

Concretely, the RMA and the RMS are mutually supportive: each subregional macroeconomic monitoring scheme would depend closely upon the kind of exchange rate system it aims at, and the **dynamics of the monitoring process** relies upon the learning-by-doing which would accumulate as a result from the collegial preoccupation for the mutual exchange rates or the implementation of the RMS.

This process of consensus building on each exchange rates would be first managed at the GOMM level with the technical support of the GAM. Second, at the end of this first technical step, if the GOMM could reach a common view on sustainable exchange-rate targets, the CMCB would ideally announce "recommended bands" for exchange rates that were compatible with the stated and expected national policies. This concept of recommended bands does not imply a system of fixed bilateral parities or compulsory limits since it is also applicable to floating rates. Initially these bands would be broad and non-binding. In the future, RMS could be easily transformed into a Sub-regional Exchange Rate Mechanism (SERM), if needed and once a sufficient degree of convergence and consensus among the members had been achieved through the establishment of the RMA and its rules and sanctions. In the meantime, the RMS would be a way to inform market agents about policy intentions, to contribute to shape their expectations and to open a "learning -by-doing" path for the policy-makers.

The system would work merely by agreeing upon the **single commitment** to trigger obligatory consultations when the limits of the consensual broad bands were being approached. These compulsory consultations could allow to spur the design of the rules and procedures of surveillance scheme (the RMA). The consultations would work by consensus, thus giving a veto to each member, even to a single national central bank, trying to mobilize a range of concrete common instruments. These instruments cover a broad range from merely issuing an ad-hoc joint-communicé to launching convergence criteria and compulsory rules of the games with rewards or sanctions. They cover also ad-hoc cooperative actions, such as deciding on joint interventions in favour of specific currencies or announcing new consensual bands, or implementing coordinated policy adjustment for supporting the achievement of the bands.

After a training test-period, the system should have the potential for designing a common system for orientation of exchange rates by anchoring market expectations through precise criteria and formal procedures, providing transparent information on the respective policy stances behind the bands and the required adjustment path. Progressively, the option of trying a real or a nominal fixed parity grid would be discussed if the participating members were able to achieve an effective degree of consensus and cohesion shown by respecting the common criteria and rules established by the RMA.

3. Institutions for regional integration

There is no *a priori* argument against the implementation of the above proposal in LAC, at least as an experimental attempt: if national policy-makers look for improving their credibility and so their policy efficiency they cannot oppose. Nevertheless, in the real world they do in line with a bad record of cooperation among LAC. This should be understood.

Our diagnostic is that many obstacles to regional integration come from the wrong perception of an opposition of interests between national powers and the regional one. This misconception relies upon the fact that the regional integration is generally associated with an old-fashion centralist view of governance where the supranational level dominates the national one, confusing it with a federal power taking over the local state sovereignty. This tends to fuel nationalistic sensibilities.

Our proposal is to develop a regional cooperative approach based upon the subsidiarity principle, i.e. an international cooperation that is motivated by the self-interest of national administrations. One cannot ask these administrations to sacrifice their own national goals for the sake of their neighbours or the community, but one could channel the driving force of their legitimate self-interest to protect them from the mistakes of their neighbours in order to create sound competition for applying and ensuring respect for some shared rules in the regional game. As the proposal is based upon a progressive building of mutual confidence and associated gains, it does not require either intense previous negotiation or any formal commitment, but merely needs to be launched as a progressive self-validating process which fully preserves national sovereignty. It is thus more realistic and politically acceptable than others formulas.

It is also in their own direct interest to benefit from the higher level of credibility their own policies will receive owing to the mere existence of a effective collegial system of rules and scrutiny. This is subsidiarity and means a combination of cooperation and competition among autonomous national administrations, which prohibits undue centralization but which leads to cooperation in the sake of the significant advantages accruing to these individual administrations.

In sum, an efficient regional tool should not become a reproduction at a higher level of the interventionist-centralist state, but should rather be limited to a collegial way of creating in LAC the "*checks and balances*" that are very much needed in order to ensure more accountability to their public opinion and financial markets. The reactions of public opinions and those markets provide the incentives and sanctions for the policy-makers, able to internalize their spillovers. The result is a *win-win game* both for the different national actors as well as for the different countries and the whole region.

The "globalization threat" feeds the political economy of regional cooperation. Through a combination of cooperation and competition among autonomous partners, the right regional tool should meet the needs of national administrations while protecting them against the possible mistakes of both their neighbours and themselves. A workable scheme is one which works in the self-interest of the participants, relying on their competition for respecting the agreed rules and monitoring their application by their neighbours, resulting in the *win-win game*. As explained above, this game corresponds merely to the application of the subsidiarity principle.

In this spirit, there is a possibility of reaching a consensus among national administrations for developing common rules and criteria, and deciding to enforce them at the appropriate sub-regional level, i.e. in a joint, collegial monitoring among peers and under the scrutiny of economists and markets. Such a transparent method would become a powerful catalyst for reforms and an appropriate level for institutional capacity building. Most of the urgent reforms that each economy needs, could be designed, stimulated, and monitored using this regional cooperative method, allowing for economies of scale, credible accountability and genuine regional harmonization, triggering endogenous motivation and winning social support in a context of reluctant public opinions. In particular, the exchange-rate and macroeconomic stability issue could more easily and safely become a common sub-regional matter, contributing both to democratic participation and shaping regional identity. Of course, as mentioned first, all this dynamics supposes a no-centralist, no-bureaucratic regionalism (strict subsidiarity and transparency) and a permanent opt-out option for preventing any free-riding or moral hazard situation.

Conclusion

To resume briefly the extremely rich contemporary debate on exchange-rate regimes, the simultaneous evaluation of both the optimality and feasibility of exchange-rate regimes in individual LAC countries must take into consideration several parameters linked to microeconomic aspects (relative prices and the demand for tradable vs. non-tradable goods and services), an open macroeconomy (demand for monetary balance and financial assets), and political economy (credibility of monetary and fiscal policies, as well as institutional contracts). The discussion on ERRs traditionally entries on the relevance of the different shocks affecting national balances of payments, their transmission to real variables of national economies (relative prices of good and assets, aggregate demand, growth, employment and so on) and the capacity of different ERRs to mitigate such destabilizing effects.

More recently, the discussion has gone further and has incorporated the regional dimension within national strategies. The European experiment with a common exchange-rate strategy initiated the debate for developed countries; more recently, the turmoil caused by the Asian crisis has extended the debate to emerging economies. Thus, individual strategies must also take into consideration the possibility of joining monetary unions. In other words, the discussion on OCAs should be added to the issues.

The choice of an optimal ERR and the desirability of monetary unions for the LAC economies are jointly determined by the individual and regional degrees of readiness to form a currency area.

The degree of readiness depends on two factors, eligibility and optimality. The first one is a precondition, which in institutional terms requires the potential partners to have reached a minimum level of macroeconomic convergence and to share similar economic objectives and instruments. The second one is technical, and implies that the expected benefits of joining a monetary union should be higher than the costs.

Today, the optimal currency area (OCA) concept initially defined by Mundell in 1961 is, despite its shortcomings, still a *réf rence oblig e* of any debate on the subjects of exchange rate regimes and monetary unions, as stated by Mc Callum (1999) in his review of theoretical issues pertaining to those matters. Indeed, during the last decade, most LAC countries have achieved a greater degree of convergence in terms of results and the instruments used for their macroeconomic policies, despite differences in exchange-rate regimes. Reforms implemented during the 1990s also contributed to a greater convergence in the institutional frameworks. Yet, the observations collected on trade and real cycles for LAC countries during the 1990s show that despite greater trade integration and convergence of their macroeconomic policies, the whole region still does not fit all of the traditional OCA criteria. At the subregional level, the picture looks more promising, as several facts point to a deeper interrelation and symmetry on both external and GDP criteria.

However, we state in the paper that two other interrelated dimensions should be added to the analysis of the optimality of monetary unions in the LAC context: first the political economy aspect that joining a monetary union or an exchange-rate mechanism could improve the policy-making process. Important macroeconomic gains could result from a new ERR insofar as the economy alone was not well managed and insofar as this new ERR would bring the required discipline for changing such a sub-optimality. Second, the development of financial markets are induced by globalization, which increased the importance of political economy factors.

Behind the discussion on an optimal ERR lies the need of LAC policy-makers to achieve external and internal equilibrium, and thus create an appropriate macroeconomic climate for sustained growth and development. Due to the increased commercial integration and financial interdependency, and to the new environment of international finance, achieving these equilibria simultaneously requires something more than a nationally determined ERR, giving an explicit weight to the regional dimension.

In particular, the choice of corner solutions is seen as short-sighted, and unsound, as they try to avoid problems rather than solve them. They cannot obviate the need for deeper reforms in order to establish credible macroeconomic stability and sustainability. On the contrary, corner solutions create the dangerous illusion of easier solutions, exposing the authorities to the fatal temptation of buying time and postponing more profound changes. They do not in fact constitute solutions, for at least two sets of reasons. First, most LAC countries do not form an OCA with the United States economy. Therefore, our analysis does not see the so-called dollarization (or the currency board option) as a standard, ideal solution for LAC. Nevertheless, we are aware of the political economy argument and the other important links between LAC countries created by financial globalization and which might imply some revision of the traditional OCA doctrine. Second, for these and other reasons, we do not consider either a pure floating among all the LAC economies, would be *a priori* a realistic alternative solution. Indeed, such an option would require more independent central banks, more transparent and resilient institutions and policy-making than presently seems to be the case. Furthermore, even pure national (uncoordinated) floating would be sub-optimal when considering the regional context, where economic interaction has been on the rise during the 1990s.

In our view, the ERR should be one that truly supports and is supported by the achievement and sustainability of sound, balanced domestic (and particularly monetary and fiscal) policies. Therefore, the poor record of most LAC countries in these fields points to the need for institution-building with regard to macroeconomic decision-making. The solution is thus not tying the hands

of domestic monetary policy-makers, but creating a set of strong checks and balances at the regional level which rationally reduces the discretionary dimension of both fiscal and monetary policies in order to avoid circumstantial problems that might affect the long-term goal of good fiscal and monetary management. In our view, such a set can be better achieved by binding national policy-making to a greater goal of regional monetary integration, under a sequenced proposal for ERR within a subregional currency area.

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