
informes y estudios especiales

Developing countries'
anti-cyclical policies in a
globalized world

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Office of the Executive Secretary

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Contents

Introduction	5
I. The macroeconomics of boom-bust cycles	7
II. The exchange rate regime	11
III. Liability policies	19
A. Innovations in capital account regulations in the 1990s	20
B. Complementary liability policies	22
IV. Counter-cyclical prudential regulation and supervision	25
V. Counter-cyclical fiscal policy	29
VI. Conclusions	33
Bibliography	35
Serie informes y estudios especiales: issues published ...	39

Figure contents

Figure 1 Latin America: net capital flows and GDP growth.....	7
Figure 2 Macroeconomic stability, 1990-2000	17
Figure 3 Devaluation and real deposit interest rates	18
Figure 4 Short-term liabilities to banks and debt securities issued abroad as a percentage of international reserves.....	21
Figure 5 Fiscal deficit and public debt, Colombia	24

Introduction

The volatility and contagion characteristic of international financial markets, which dominated emerging economies during the 1990s, have deep historical roots.¹ Indeed, from the mid-1970s to the end of the 1980s, Latin America and many other regions in the developing world experienced a long boom-bust cycle, the most severe of its kind since that of the 1920s and 1930s. The shortening but also the intensity of boom-bust cycles have been distinctive features of the past decade. The latter is reflected, in the words of the Chairman of the Federal Reserve Board, in the fact that the “size of the breakdowns and required official finance to counter them is of a different order of magnitude than in the past” (Greenspan, 1998).

Viewed from the perspective of developing countries, the essential feature of instability is the succession of periods of intense capital inflows, in which financial risks significantly increase, facilitated and sometimes enhanced by pro-cyclical domestic macroeconomic policies, and the latter phases of adjustment, in which these risks are exposed and the pro-cyclical character of the measures adopted to “restore confidence” amplify the flow (economic activity) and stock (portfolio) effects of adjustment processes. An essential part of the solution to these problems lies in strengthening the institutional framework to prevent and manage financial crises at the global level.² This paper, however, looks at the role of developing countries’ domestic policies in managing externally generated boom-bust cycles.

¹ See, for example, in relation to Latin America, Bacha and Díaz-Alejandro (1982).

² There is an extensive literature on these issues. See, for example, Eatwell and Taylor (2000), Eichengreen (1999) and Ocampo (1999, 2001, 2002).

It draws upon extensive recent literature on the subject³ and upon the experience of Latin America in the 1990s.⁴ The discussion is divided into seven sections. The first looks at the macroeconomics of boom-bust cycles in the developing world. The following sections look at the exchange rate regime, liability policies, prudential regulation and supervision, and fiscal stabilization. The final section draws some conclusions.

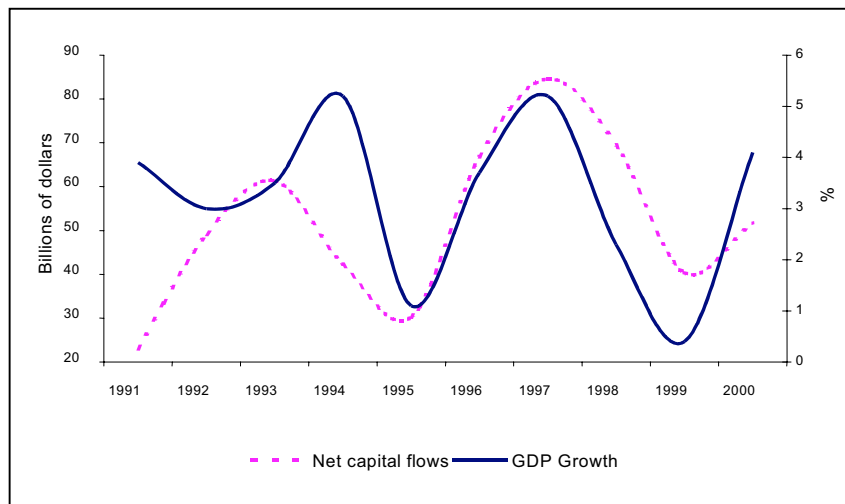
³ Among the many recent contributions to the analysis of this issue, see ECLAC (1998a, Part Three; 2000, chapter 8), French-Davis (1999), Furman and Stiglitz (1998), Helleiner (1997), Ocampo (1999, chapter 5), Stiglitz and Bhattacharya (2000) and World Bank (1998, chapter 3).

⁴ See ECLAC (2000, 2001 and 2002).

I. The macroeconomics of boom-bust cycles

The association between capital flows —and, more particularly, net resource transfers— and economic activity has been a strong feature of Latin America over the past decade (and, for that matter, the past quarter century), as Figure 1 indicates. This fact highlights the central role played by the mechanisms through which externally-generated boom-bust cycles are transmitted.

Figure 1
LATIN AMERICA: NET CAPITAL FLOWS AND GDP GROWTH



Source: ECLAC.

These mechanisms are well known. The boom encourages an increase in public and private spending, which will inevitably lead to an adjustment whose severity will bear a direct relationship to how excessive spending levels were, as reflected in accumulated liabilities. Thus, transitory public-sector revenues and readily accessible external credit during booms generate an expansion of public-sector spending, which will be followed by a severe adjustment later on, when those conditions are no longer present. A private lending cycle is generated by shifts in the availability of external financing and the cyclical patterns of international interest rates and spreads; availability and spreads are associated, in turn, with significant asymmetries in risk evaluation during booms and crises. Private-sector debt overhangs that have accumulated during the boom will subsequently trigger a sharp contraction in lending, usually accompanied by a deterioration in bank portfolios.

Poor prudential regulation and supervision of financial systems, and inadequate experience on the part of financial agents in risk evaluation, will lead to a significant underestimation of risks, further reinforcing credit expansion during booms. Both conditions are characteristic of periods of rapid financial liberalization. Nevertheless, even well-regulated systems are subject to periodic episodes of euphoria, when risks are underestimated. Private-sector borrowing and spending sprees spur sharp upswings in the prices of certain assets, particularly equities and real estate. This generates wealth effects that accentuate the boom in spending, but the reverse will hold true when spending, borrowing and, consequently, asset and real estate prices fall. This process is reinforced by the greater liquidity that characterizes fixed assets during periods of financial euphoria —i.e., when buyers are more readily available and financial decisions can be more easily reversed without incurring substantial losses— and by their reduced liquidity during crises. The use of assets as collateral will facilitate booms in private spending and borrowing, but it will then increase the vulnerability of the financial system during subsequent downswings, when it becomes clear that the loans did not have adequate backing. Asset prices will then plunge even further as debtors strive to cover their financial obligations and creditors seek to liquidate the assets received in payment for outstanding debts.

Capital-account booms —as well as high export prices— will also induce an appreciation of the exchange rate and exert adverse pressures on exchange and interest rates during the ensuing busts. Exchange rate fluctuations have significant wealth effects in countries with large net external liabilities. The capital gains generated by appreciation during booms further fuels spending booms, whereas wealth losses generated by depreciation have the opposite effect and may weaken domestic financial intermediaries. This is true even if prudential regulations forbid such agents from holding currency mismatches in their portfolio, as the capital losses incurred by non-financial firms with mixed external and domestic liabilities transform their currency risks into domestic financial risks. Thus, the wealth effects of exchange rate variations are pro-cyclical in debtor countries. The income effects may be so as well, at least in the short run, if the more traditional contractionary effects of devaluation prevail (Krugman and Taylor, 1978).

The associated macroeconomic volatility is costly in both economic and social terms. In economic terms, it increases uncertainty, reduces the efficiency of fixed capital investment and leads economic agents to prefer “defensive” microeconomic strategies that avoid committing fixed capital to the production process. For all of these reasons, it discourages investment. The higher risk levels faced by the domestic financial system biases lending toward shorter maturities. If severe enough, domestic financial crises will generate losses that amount to the equivalent of large proportions of GDP. In social terms, there is growing evidence in Latin America of ratchet effects of employment, poverty and income distribution through the business cycle.⁵ This is associated with permanent losses in human capital during crises: workers who lose labor experience and connections and thus face permanent income losses; children who leave school and never return,

⁵ See, for example, ECLAC (2000, chapter 8; 2001c, chapter 3) and Lustig (2000).

etc. There may also be ratchet effects in the quality of public-sector services as the result of sharp cuts in spending.

The most important policy implication of this is that developing-country authorities need to focus their attention on crisis prevention, i.e., on managing booms, since in most cases crises are the inevitable result of poorly managed booms. Concentration on crisis prevention recognizes, moreover, an obvious fact: that the degrees of freedom of the authorities may be greater during booms than during crises. The way crises are managed is not irrelevant, however. In particular, different policy mixes may have quite different effects on economic activity and employment, on the one hand, and on the domestic financial system, on the other.

The following sections of this paper argue for a mix based on four different sets of policies: (a) managed exchange rate flexibility cum capital account regulations to provide room for counter-cyclical monetary and financial policies; (b) strong “liability policies” to improve countries’ debt profiles (which include but go beyond capital account regulations); (c) counter-cyclical management of prudential regulation and supervision of domestic financial systems; and (d) fiscal stabilization. Given the reduced degrees of freedom that authorities have and the reduced effectiveness of some instruments in globalized markets, all policies have limited effects. Thus, pragmatic policy mixes in which these different elements support each other in their counter-cyclical task are called for. The specific emphasis will vary depending on the macroeconomic constraints and traditions of each particular country.

II. The exchange rate regime

In today's open developing economies, the exchange rate regime is subject to two conflicting demands which are not easily reconcilable. These conflicts are exacerbated by the strong aggregate demand and supply effects that exchange rates have in developing countries and by the reduced degrees of freedom that authorities have in a world of limited policy instruments and reduced policy effectiveness.

The first is a demand for stability. This comes from trade, but also from the capital account and domestic price stability. A classic defense of exchange rate stability is that it reduces the costs of international trade, whereas exchange rate flexibility may be seen as a tax on international specialization. On the other hand, with the dismantling of traditional trade policies, the real exchange rate has become a key determinant of international competitiveness.⁶ Given the central role that exports play in the growth process, stable and competitive real exchange rates are essential for sustained economic growth. Alternatively, the combination of exchange rate appreciation and trade liberalization may lead to a structural deterioration in the growth/trade balance trade-off, such as that experienced by Latin America in the 1990s (ECLAC, 2000, chapter 1).⁷

⁶ We will not deal here, however, with the literature on the long-run determinants of the real exchange rate. It suffices, for our purposes, to note that nominal exchange rates influence real exchange rates through the business cycle. One way of posing these issues is to say that access to external financing is one of the determinants of the real exchange rate, alongside others (the terms of trade, the fiscal stance, relative productivity trends in tradables vs. non-tradables, etc.), and that the magnitude of the external financing/real exchange rate link is not independent of the exchange rate regime.

⁷ This deterioration of the growth/trade balance trade-off seems to be a feature of most of the developing world. See UNCTAD (1999, Part Two, chapter IV).

From the point of view of the capital account, a “hard” peg is seen as a useful instrument to avoid the pro-cyclical wealth effects of exchange rate fluctuations in countries having significant liabilities denominated in foreign currencies.⁸ From the point of view of anti-inflationary programs, it is associated with the need to anchor the price level as part of a shock therapy administered after a period of run-away inflation or, more generally, to guarantee macroeconomic discipline and price stability in small open economies. It should be emphasized that these two demands for stability may be inconsistent with the demand deriving from trade. Thus, hard pegs and exchange rate anchors have frequently led to overvalued exchange rates that run counter to the objective of international competitiveness.

The second is a demand for macroeconomic flexibility in the face of trade and capital account shocks. On the trade side, exchange rate flexibility has traditionally been seen as a useful instrument to accelerate relative price adjustments in the face of significant changes in the terms of trade and external demand conditions, or to maintain competitiveness in the face of changes in the exchange rates of major currencies or those of major trading partners. Similarly, significant changes in the availability of external financing generate a demand for flexible macroeconomic variables to absorb the positive and negative shocks that they generate. This demand for flexibility explains the fairly broad trends toward greater exchange rate flexibility that have characterized the world economy since the breakdown of the dollar standard in the early 1970s.

A simple way to present these conflicting demands is to express them as an explicit trade-off between two conflicting policy objectives: nominal price stability and relative price flexibility. The authorities will choose a combination based on their preferences but also on the relative benefits (“price”) of flexibility vs. stability, which are determined by both external and internal macroeconomic conditions. Increased international instability (e.g., the breakdown of the dollar standard, a period of turmoil in world finance for “emerging” markets or a world recession) will increase the relative benefits of flexibility, whereas a period of tranquility (e.g., the Bretton Woods system, or a period of stable world economic growth) will increase the “relative price” of stability. Alternatively, the benefits of flexibility will be higher for larger, less specialized economies, whereas the relative benefits of nominal stability will be greater for smaller, more specialized economies.

The relevance of these conflicting demands is not captured in the call to adopt exchange rate regimes located at either of the two extremes of the spectrum, i.e., either a totally flexible exchange rate or a currency board (or outright dollarization). Indeed, the case for regimes at either of the two polar extremes is based on the call to recognize that policy autonomy is quite limited in today’s world and, thus, that any attempt to manage the conflicting demands on exchange rate policy should be given up. The “revealed preference” of authorities in the developing world has been, on the contrary, to choose intermediate regimes in an attempt to reconcile these conflicting demands. Such intermediate regimes either take the form of managed exchange rates (such as crawling pegs and bands) or are characterized by a mix of exchange rate flexibility and central bank intervention in the foreign exchange market (i.e., dirty flotation).⁹

Currency boards certainly introduce built-in institutional arrangements that provide for fiscal and monetary discipline, but they reduce and may even eliminate the room for stabilizing monetary and credit policies. They thus tend to generate stronger swings in economic activity and asset prices. Probably as a result of this, these arrangements are not speculation-proof, as the experience of Argentina in 1994-1995 and 1998-2001, Hong Kong in 1997 and, for that matter, of the gold standard in the periphery indicate. More generally, they are not free from pro-cyclical, externally-induced pressure on interest rates. In this type of regime, adjustment to overvaluation (if the

⁸ Hausmann (2000) and Calvo (2001).

⁹ For recent defenses of intermediate regimes, see ECLAC (2000), chapter 8, and Williamson (2000). For interesting reviews of recent controversies on exchange rate regimes, see Frankel (1999), Velasco (2000) and Braga de Macedo, Cohen and Reisen (2001).

economy gets “locked” in an overvalued exchange rate during the transition, or as a result of effective devaluation by major trade partners or of the appreciation of the currency to which the exchange rate is tied) is painful, as it relies on open deflation to operate. This process is very slow, as the experience of Argentina in 1998-2001 illustrates. Overvaluation in a currency board regime may thus lead to low structural rates of growth mixed with strong business cycles.¹⁰

On the other hand, the volatility characteristic of freely floating exchange rate regimes increases the costs of trade transactions, thus reducing the benefits of international specialization. As developing countries are large net importers of capital goods, exchange rate uncertainty also affects investment decisions. Learning effects may generate real ratchet effects in the form of “Dutch disease”,¹¹ whereas ratchet price dynamics increases the risk of rising inertial inflation during crises.

Moreover, the pro-cyclical wealth and (possibly) income effects of exchange rate variations are particularly severe in capital-importing countries. Flexibility certainly deters some short-term flows —particularly portfolio flows and short-term domestic currency-denominated debt— but it is unlikely to smooth out medium-term capital account cycles. Rather, it could enhance them, as the significant capital gains and losses associated with real exchange rate cycles may further encourage “self-fulfilling” booms and busts. Regulations on currency mismatches of domestic financial institutions and widespread use of exchange rate coverage may limit these endogenous amplifications of financial cycles and are thus essential complements to exchange rate flexibility. However, the coverage provided by private financial agents is likely to be limited or may generate counterpart operations that anticipate the effects of expected exchange rate fluctuations on capital flows.¹²

The ability of a flexible exchange rate regime to smooth out the effects of externally-generated boom-bust cycles thus depends on the capacity to effectively manage a counter-cyclical monetary and credit policy without accentuating pro-cyclical exchange rate patterns. As is well known, this can be achieved through two alternative mechanisms. The first is sterilized intervention in the foreign exchange market, which involves an active counter-cyclical management of international reserves. The basic problem with this option is that higher (lower) domestic interest rates induce short-term capital inflows (outflows) that partly defeats the policy objectives, generating, in turn, additional pressures on exchange rates (Montiel and Reinhart, 2001). The parallel accumulation of international reserves and domestic liabilities by the central bank during booms generates quasi-fiscal losses, which may not be offset by the profits generated by selling the accumulated reserves during ensuing crises (plus the interest earned by the management of reserves in the interim). Mixing managed exchange rate flexibility and sterilized intervention with capital account regulations can help to overcome these problems; the effectiveness of such regulations will be explored in the following section of this paper. It is thus only under managed exchange rate regimes cum capital account regulations that we can speak of effective, though certainly limited, “monetary autonomy”.

Other features support the choice of intermediate regimes, particularly in very small developing countries. First of all, the “law of one price” does not hold true even in fairly small economies, as reflected in the fact that real exchange rate variability is only weakly dependent on the size of an economy (ECLAC, 2000, chapter 11). Therefore, although the benefits of exchange rate stability are higher for smaller economies, flexibility still plays a useful role. Secondly, the

¹⁰ More price flexibility will help in this regard, but may generate other problems. Thus, in the gold standard era, price flexibility tended to generate additional domestic financial risks during crises (due to the rapid increase in real debts generated by deflation, which may be thought of as equivalent to very high real short-term interest rates). It also generated a strong short-term bias in domestic lending which was associated with the need to rapidly reduce nominal portfolios during periods of monetary contraction.

¹¹ Krugman (1990, chapter 7) and van Wijnbergen (1984).

¹² Thus, private institutions with open positions in domestic currency may cover them with domestic-currency-denominated debts. In this case, the counterpart of the net coverage provided in the futures market is a current capital outflow (Dodd, 2001). Foreign investors can cover themselves directly with larger domestic currency liabilities, with a similar effect.

strong dependence of these economies on foreign trade makes profitability in a broader range of economic activities dependent on the real exchange rate. Finally, the thinness of exchange rate markets make them subject to stronger volatility under free floating regimes, and the thinness of domestic capital markets limits the chances for sterilized monetary operations. Thus, some exchange rate flexibility is useful (first feature) and may be a necessary counter-cyclical instrument (second feature), the thinness of markets eliminates the usefulness of free floats (third feature).

One of the advantages of intermediate regimes is that flexibility can be graduated, depending on external conditions. This implies that any specific intermediate regime has an embedded "exit option". The fact that most flexible regimes are accompanied by some intervention in foreign exchange markets, and that the demand for international reserves has not declined with the more widespread use of some exchange rate flexibility, implies that authorities rarely (if ever) choose a totally flexible regime but instead prefer to use the embedded graduation of flexibility that intermediate regimes provide. This is, in fact, an essential feature that differentiates these regimes from any fixed exchange rate regime, hard or soft, since the latter lacks such an option and thus generates exit costs.

The usefulness of the approach we have outlined here obviously depends on effective incentives for the authorities to behave in a counter-cyclical fashion. In this regard, the exclusive focus of independent central banks on inflation targeting, or the incentives that governments face in post-inflationary environments, tend to generate strong "exchange rate appreciation biases" that lead to asymmetric interventions. In particular, given the expected effects of the exchange rate on price levels, devaluation during crises is resisted more than appreciation during booms, as was characteristic of Latin America during the 1990s.

Available Latin American evidence is difficult to evaluate in the light of incomplete histories on certain regimes (particularly, the absence of sustained clean floats —the closest example being Mexico since the Tequila crisis), frequent regime changes and the aforementioned policy biases. Figures 2 and 3 provide some evidence. Figure 2 indicates that a low degree of real exchange rate volatility has been characteristic of quite different exchange rate regimes, including Argentina's currency board but also Costa Rica's crawling peg (cum State-controlled domestic financial system), several small countries with "soft" pegs, and Peru's highly managed float (cum highly dollarized domestic financial system). The highest volatility has been seen in Brazil, which tried, unsuccessfully, to defend an overvalued exchange rate inherited from the Real Plan, and in the two countries that experienced the most severe macroeconomic instability throughout the decade (Ecuador and Venezuela). Colombia, which for most of the decade had a system of exchange rate bands, but also El Salvador, with a virtual peg, experienced intermediate levels of real exchange rate volatility.

On the other hand, there is no statistically significant association between real exchange rate volatility and GDP volatility, and only a weak negative correlation between the first of these variables and GDP growth. Argentina, under the currency board regime, may be viewed as an example of a lack of exchange rate flexibility generating high GDP volatility (the highest in the region after Venezuela). A recent analysis of several emerging economies during the Asian crisis indicates that more flexible regimes have done best in terms of reducing GDP volatility, followed by countries with exchange rate bands, while those with hard pegs and, particularly, soft pegs did the worst. This reflects the fact that real interest rate volatility, which tends to be most intense in pegged regimes, has a more adverse effect on GDP volatility than either foreign reserve or nominal exchange rate volatility (Ffrench-Davis and Larraín, 2001).

Generally speaking, authorities have found it difficult to undertake anti-cyclical policies under all regimes. Figure 3 illustrates the experiences of five large and medium-sized countries in greater detail: Argentina, with a currency board; Brazil and Mexico, which moved from very narrow exchange rate bands to floating regimes under crisis conditions; and Chile and Colombia,

which moved from wide exchange rate bands to floating regimes after the Asian and Russian crises. It must be emphasized that, in all four relevant cases, floats have been “dirty” when the exchange rate has come under strong (particularly devaluation) pressures.

Interest-rate shocks have been common to all five countries and have been associated with major international events, as indicated in Figure 3 with arrows. In three of these episodes, a country from the region has been at the center. Most reductions in per capita GDP (identified with rectangles in the graph) have been associated with such shocks, reflecting both the contractionary effects of higher interest rates, but also more direct effects of the external shock (e.g., reduced availability of finance, trade contraction in industrial or other Latin American economies) and fiscal adjustment packages. Indeed, the only exception to this rule is the 1996 domestically induced slowdown in Colombia. However, the degree of international contagion has varied from crisis to crisis: the Russian crisis is the only one that affected the five countries simultaneously but, even then, its effects on Mexico were weaker (the boom that the U.S. economy was undergoing was obviously crucial to Mexican performance at the time); if we allow for lagged effects, the Asian crisis is a close second.

Within this pattern, three features stand out. Firstly, after an initial period of turbulence in which high rates of devaluation were accompanied by high interest rates, the move from fixed exchange rates to more flexible exchange rate regimes has allowed a sustained reduction in real interest rates. This means that the “anomalies” in the evolution of interest rates that are stressed by Hausmann (2000) in his criticism of the move toward freer exchange rates in developing countries are only a feature of transition periods. It should be added that the transition from exchange rate bands to greater flexibility in Chile and Colombia after the Asian and Russian crises also had costs, which have nonetheless been criticized as a result of delayed policy action (“fear to float”) rather than as inherent in the graduation of a regime to allow for more flexibility.

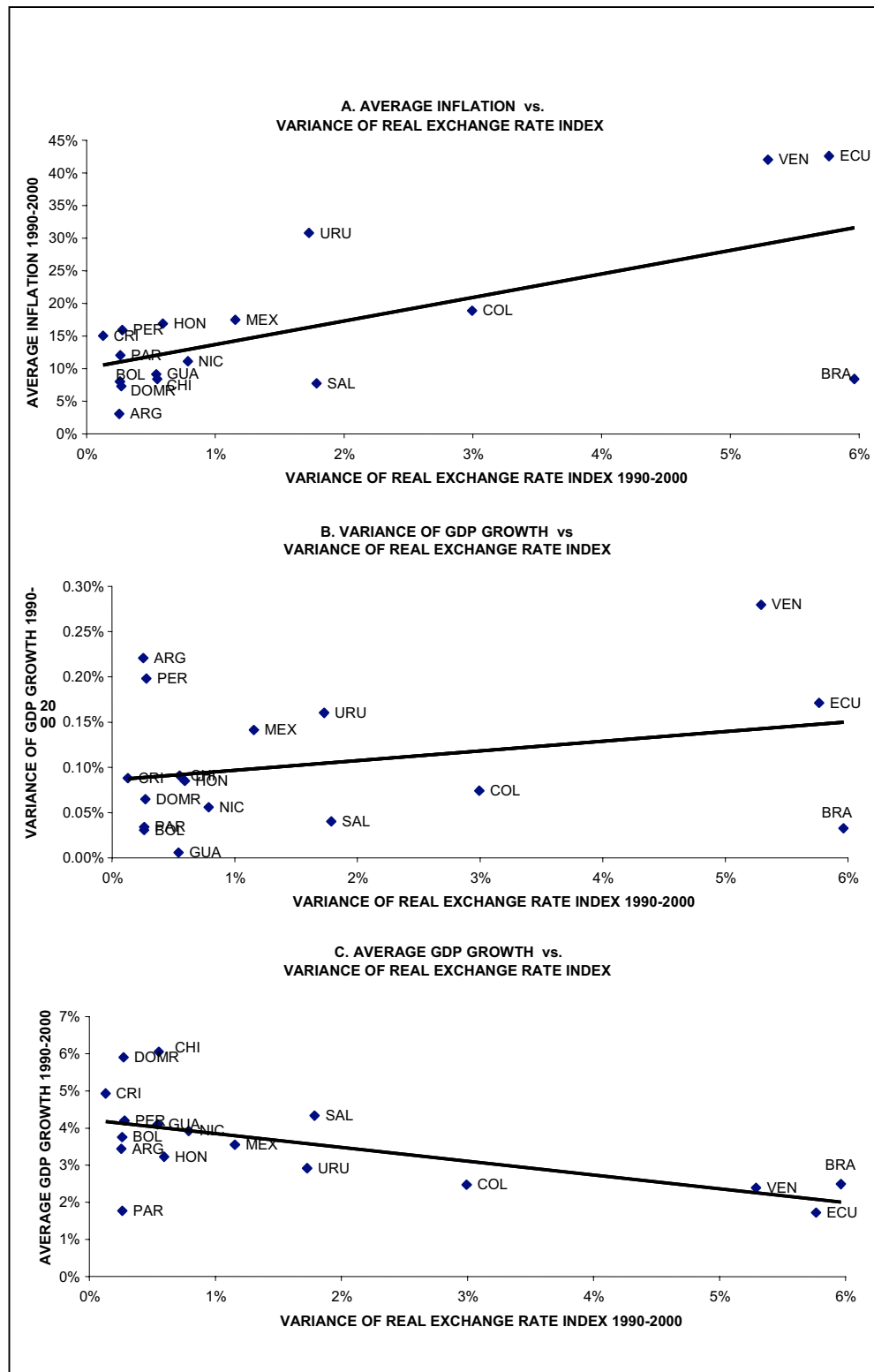
Secondly, exchange rate flexibility has indeed allowed countries to face external shocks while avoiding interest rate hikes. This is clearly the case of Chile during the 2001 Argentine crisis and, to a lesser extent, of Brazil during 2001 and Mexico during the Russian crisis. Moreover, in all these cases, the inflationary effects of devaluation have been very moderate. Nonetheless, the countries have not been able to avoid the real effects of external shocks. The exchange rate response may have generated additional short-term contractionary wealth and possibly income effects, at least in those cases where the response was strong.

Thirdly, the adoption of “autonomous” policy packages during periods of external capital abundance has been rare. The clearest cases are the 1994 and 1997 packages of Colombia, both of which involved strong price-based capital account regulations: the first was aimed at cooling excessive aggregate demand growth while trying to avoid the expected exchange rate appreciation induced by contractionary monetary policy;¹³ the second was aimed at avoiding the appreciation pressures generated by booming capital inflows at a time when it was essential to maintain low interest rates to facilitate economic recovery after the 1996 slowdown. The gradual strengthening of capital account regulations in Chile in 1991-1994 (i.e., prior, for the most part, to the period included in Figure 3) was also aimed at sustaining low interest rates but avoiding the appreciation pressures of booming capital inflows. Such regulations were not, however, strengthened to face appreciation pressures in 1996-1997.¹⁴ The contractionary policy adopted by Mexico since late 2000 may also be seen as an autonomous attempt to cool down the economy. In the absence of capital account regulations, it has induced additional capital inflows and an exchange rate appreciation.

¹³ Devaluation came in this case with a lag, in the early months of 1995, due to the speculation generated prior to the August 1994 strengthening of regulations. Although it coincided with the Tequila crisis, it was unrelated to it. Appreciation pressures resurfaced when capital regulations were relaxed in early 1996. See Ocampo and Tovar (1998 and 2001) and Villar and Rincón (2000).

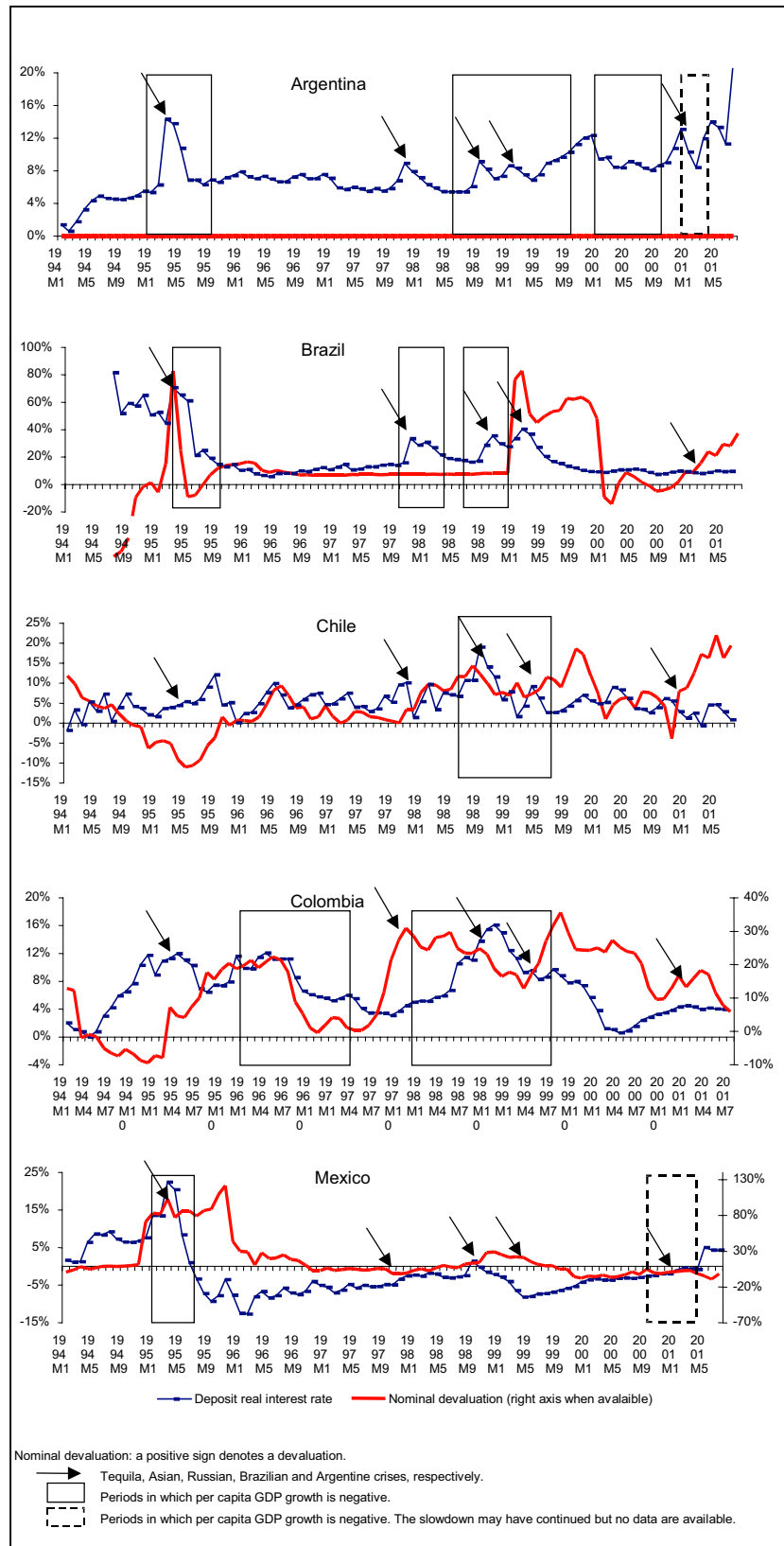
¹⁴ Agosin and Ffrench-Davis (2001); Ffrench-Davis and Larrain (2001).

Figure 2
MACROECONOMIC STABILITY, 1990-2000



Source: ECLAC.

Figure 3
DEVALUATION AND REAL DEPOSIT INTEREST RATES



Source: ECLAC and IMF.

Overall, when exchange rate flexibility is available before an external crisis hits, it provides scope for the management of domestic interest rates in a more autonomous way. This is also true when intermediate regimes are graduated to generate more flexibility, though lags in policy decisions to do this may generate costs. On the other hand, when flexibility is adopted as part of a shock treatment that is undertaken when a soft peg (or a narrow exchange rate band) regime breaks down, this result is only achieved after a temporary period of turbulence. However, flexibility does not isolate the economies from real external shocks, and the mix of lower interest rates and adverse wealth effects of devaluation has unclear effects on economic activity. Finally, policy autonomy during periods of abundant capital flows has only been achieved when supported by capital account regulations, but the effects have been transitory.

III. Liability policies

The accumulation of risks during booms will depend not only on the magnitude of domestic and private liabilities but also on their maturity structure. Capital account regulations thus have a dual role: as a macroeconomic policy tool, which provides some room for anti-cyclical monetary policies, and as a “liability policy” to improve private-sector external debt profiles. Complementary liability policies should also be adopted to improve public-sector debt profiles. The emphasis on liability structures rather than national balance sheets is due to the fact that they play the primary role when countries face liquidity constraints, together with liquid assets (particularly, international reserves); other assets play a secondary role under those conditions. The need to reduce the costs associated with holding foreign exchange reserves underscores the crucial role of appropriate liability structures.

Viewed as a macroeconomic policy tool, capital account regulations are aimed at the direct source of boom-bust cycles: unstable capital flows. If they are successful, they will provide some opportunity to “lean against the wind” during periods of financial euphoria, through the adoption of a contractionary monetary policy and reduced appreciation pressures. If effective, they will also reduce or eliminate the quasi-fiscal costs of the sterilized accumulation of foreign exchange reserves. During crises, they may also provide “breathing space” for expansionary monetary policies.

Viewed as a liability policy, capital account regulations recognize the fact that the market generously rewards sound external debt structures (Rodrik and Velasco, 2000). This reflects the fact that, during times of uncertainty, the market responds to gross, rather than merely net, financing requirements, which means that the rollover of short-term liabilities is not financially neutral. Under these circumstances, a debt profile that leans toward longer-term obligations will considerably reduce the level of risk. This indicates that an essential component of economic policy management during booms should be measures to improve the external and domestic maturity structures of both the private and the public sectors.

A. Innovations in capital account regulations in the 1990s

A great innovation in this sphere during the 1990s was unquestionably the establishment of reserve requirements for foreign-currency liabilities in Chile and Colombia. The advantage of this system was that it created a simple, non-discretionary and preventive (prudential) price incentive that penalized short-term foreign-currency liabilities more heavily and had neutral effects on corporate borrowing decisions (see below). The corresponding levy was significantly higher than the level that has been suggested for an international Tobin tax: about 3% in the Chilean system for one-year loans, and an average of 13.6% for one-year loans and 6.4% for three-year loans in Colombia in 1994-1998. As a result of a drastic change in international capital markets, the system was phased out in both countries in 1999-2000. Other (quantitative) capital account regulations complemented reserve requirements, notably one-year minimum stay requirements for portfolio capital in Chile (lifted in May 2000) and direct authorization of such flows in Colombia.

The effectiveness of reserve requirements has been the subject of a great deal of controversy.¹⁵ There is fairly broad agreement on their effectiveness as a liability policy. In this regard, although there are many other variables that influence the indicators shown in Figure 4, they tend to confirm the observation that both countries have an above-average external debt profile. On the other hand, there are heated controversies about their effectiveness as a macroeconomic policy tool. Indeed, as indicated in the previous section, neither country has been free from pro-cyclical macroeconomic policy patterns.

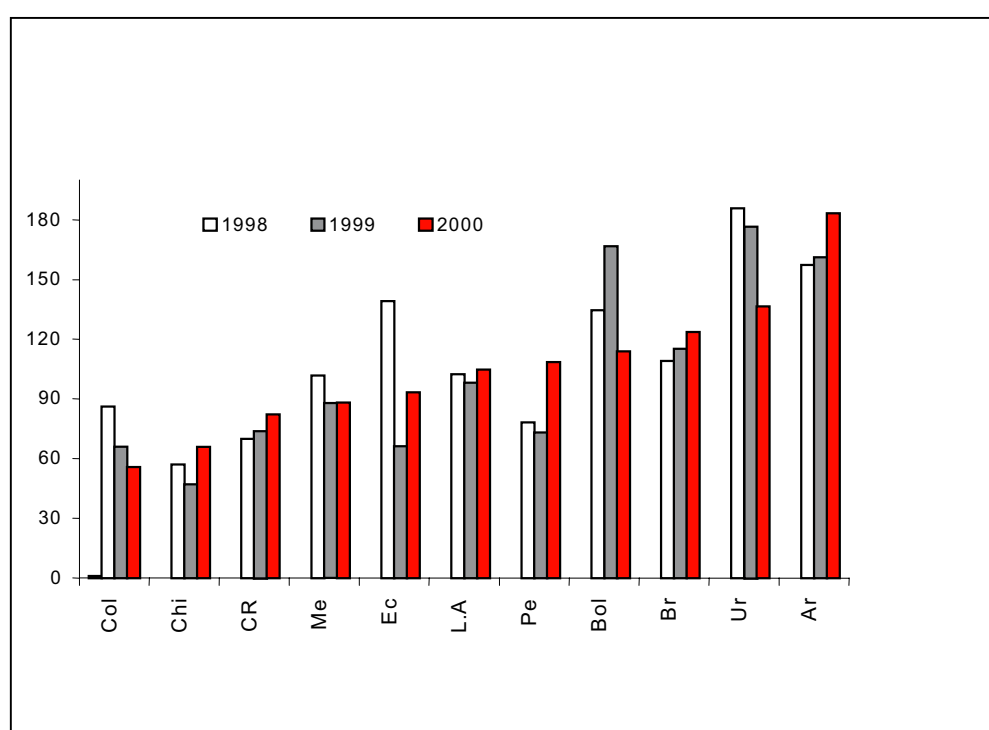
However, judging from the solid evidence that exists with respect to the sensitivity of capital flows to interest rate spreads in both countries, reserve requirements do influence the volume of capital flows at given interest rates. Alternatively, if higher reserve requirements induce new flows through their effects on domestic interest rates, then their ability to generate a stable spread between domestic and international interest rates should be seen as an indication that they are a useful macroeconomic policy tool. In Colombia, where these regulations were modified more extensively over the 1990s, there is strong evidence that increases in reserve requirements have reduced flows (Ocampo and Tovar, 1998 and 2001) or, alternatively, have been effective in increasing domestic interest rates (Villar and Rincón, 2000). Similar evidence is available for Chile (see Agosin and Ffrench-Davis, 2001, and LeFort and Lehman, 2000, on both of these issues). Moreover, according to the analysis presented in the previous section, there is evidence that the strengthening of capital account regulation improved the exchange rate/interest rate trade-off that authorities faced in the short-run under strong pressures from booming capital markets.

Some problems in the management of these regulations were associated with changes in the relevant policy parameters. The difficulties experienced in this connection by the two countries differed. In Chile, the basic problem was the variability of the rules pertaining to the exchange rate,

¹⁵ For documents which support the effectiveness of these regulations, see Agosin (1998), Agosin and Ffrench-Davis (2001), Cárdenas and Barrera (1997), Le Fort and Budnevich (1997), Le Fort and Lehman (2000), Ocampo and Tovar (1998 and 2001), Palma (2002), Rodrik and Velasco (2000) and Villar and Rincón (2000). For an opposite view, see de Gregorio, Edwards and Valdés (2000) and Valdés-Prieto and Soto (1998). There have also been explicit taxes on foreign-currency borrowing in other countries, notably Brazil.

since the limits of the exchange rate band (in pesos per dollar) were changed on numerous occasions until they were ultimately abandoned in 1998. During capital account booms, this gave rise to a safe bet for agents bringing in capital, since when the exchange rate neared the floor of the band, the probability that the floor would be adjusted downward was high. In Colombia, the main problem was the frequency of the changes made in reserve requirements. Changes foreseen by the market sparked speculation, thereby diminishing the effectiveness of such measures for some time following the requirements' modification. It is interesting to note that in both countries reserve requirements were seen as a complement to, rather than as a substitute for, other macroeconomic policies, which were certainly superior in Chile.

Figure 4
SHORT-TERM LIABILITIES TO BANKS AND DEBT SECURITIES ISSUED
ABROAD AS A PERCENTAGE OF INTERNATIONAL RESERVES



Source: Estimated on the basis of statistics on external debt, BIS-IMF-OECD-World Bank (<http://www.oecd.org/dac/debt>).

Malaysia has also provided major innovations in the area of capital account regulations in the 1990s. In January 1994, this country prohibited non-residents from buying a wide range of short-term securities; these restrictions were lifted later in the year. They proved highly effective, indeed superior in terms of reducing capital flows and asset prices than Chilean regulations (Palma, 2002). They also improved the country's debt profile (Rodrik and Velasco, 2000). However, after they were lifted, a new wave of debt accumulation and asset price increases developed, though the debt profile was kept at prudential levels (Kaplan and Rodrik, 2001).

An additional innovation came with the Asian crisis. In September 1998, strong restrictions on capital outflows were established which were basically aimed at eliminating offshore trading of the local currency. It was also determined that ringgit deposits in the domestic financial system held

by non-residents were not convertible into foreign currency for a year; in February 1999, this regulation was replaced with an exit tax.

Significant discussions have taken place on the effects of these controls. Kaplan and Rodrik (2001) have provided the strongest argument for the effectiveness of these regulations. Confirming the results of previous studies, they show that they were highly effective in very rapidly reversing financial market pressure, as reflected in the trend of foreign exchange reserves, the exchange rate and offshore interest rates for ringgit deposits. The removal of financial uncertainties, together with the additional scope provided for expansionary monetary and fiscal policies, led to a speedier recovery of economic activity, lower inflation and better employment and real wage performance than comparable IMF-type programs during the Asian crisis. This is true even adjusting for the improved external environment characteristic of the time when Malaysian controls were imposed. Moreover, the country did not receive large injections of capital and, indeed, temporarily cut itself off from external capital markets.

Overall, innovative experiences with capital account regulations in the 1990s indicate that they can serve as useful instruments, both in improving debt profiles (liability policy) and in facilitating the adoption of (possibly temporary) counter-cyclical macroeconomic policies. It has thus been shown that it is possible to design preventive policy instruments that avoid part of the costs of boom-bust cycles in international finance. The basic advantages of Chilean-Colombian price-based instruments are their simplicity, non-discretionary character and neutral effect on corporate borrowing decisions. The more quantitative-type Malaysian systems have proven to have stronger short-term macroeconomic effects.

In any case, all these systems have been designed in countries that chose to integrate into international capital markets. Thus, traditional exchange controls may be superior if one of the objectives of macroeconomic policy is to significantly reduce domestic macroeconomic sensitivity to international capital flows (see Nayyar, 2002, for an analysis of the Indian experience). Simple quantitative restrictions that rule out certain forms of indebtedness (e.g., short-term foreign borrowing, except trade credit lines) are also preventive in character.

B. Complementary liability policies

Direct capital account regulations can be partly substituted by prudential regulation and supervision. In particular, higher liquidity (or reserve) requirements for the financial system's foreign-currency liabilities can be established. Also, the rating of domestic lending to firms with substantial external liabilities can be reduced and the provisions associated with such loans increased. The main problem with these options is that such regulations do not affect the foreign-currency liabilities of non-financial agents and indeed may encourage them to borrow more abroad. Accordingly, they need to be supplemented with other disincentives for external borrowing by those firms, such as tax provisions applying to foreign-currency liabilities (e.g., allowing no or only partial deductions for interest payments on international loans); public disclosure of the short-term external liabilities of firms; restrictions on the types of firms that can borrow abroad, including prudential ratios that they must meet; and restrictions on the terms of corporate debts that can be contracted abroad (minimum maturities and maximum spreads).¹⁶

Price-based capital account regulations may thus be more neutral and simpler than an equivalent system based on prudential regulations plus additional policies aimed at non-financial firms. Among their virtues, vis-à-vis prudential regulation and supervision, we should include the fact that they are price-based (some prudential regulations, such as prohibitions on certain types of

¹⁶ For an analysis of these issues, see World Bank (1998, p. 151), and Stiglitz and Bhattacharya (2000).

operations, are not), non-discretionary (prudential supervision, on the contrary, is discretionary in its operation), and neutral in terms of corporate borrowing decisions. Indeed, equivalent practices are used by private agents, such as the selling fees that are imposed by mutual funds on investments held for a short period in order to discourage short-term holdings (J. P. Morgan, 1998, p. 23).

In the case of the public sector, direct control by the Ministry of Finance (and the central bank) is the most important liability policy and should encompass borrowing by all public-sector agencies and autonomous sub-national governments.¹⁷ Public-sector debt profiles that lean too far toward short-term obligations may be manageable during booms but may become a major destabilizing factor during crises. This observation is equally valid for external and domestic public-sector liabilities, as residents holding short-term public-sector securities have other options besides rolling over the public-sector debt, including capital flight. This is even clearer if foreigners are allowed to purchase domestic public-sector securities.

Thus, when gross borrowing requirements are high, the interest rate will have to increase to make rollovers attractive. Higher interest rates immediately generate an endogenous fiscal deterioration, thereby rapidly changing the trend in the public-sector debt, as happened in Brazil prior to the 1999 crisis (see Figure 5). In addition, rollovers may be viable only if risks of devaluation or future interest rate hikes can be passed on to the government, which will generate additional sources of destabilization. Mexico's widely publicized move to replace peso-denominated securities (Treasury Certificates or Cetes) with dollar-denominated bonds (Tesobonos) in 1994, which was one of the crucial factors in the crisis that hit the country late in that year, was no doubt facilitated by the short-term profile of Cetes.¹⁸ The short-term structure of Brazil's debt is also the reason why, since late 1997, fixed-interest bonds were swiftly replaced by variable-rate and dollar-denominated securities, which has cancelled out the improvements that had been made in the public debt structure since the launching of the Real Plan. It is important to emphasize that, despite its fiscal deterioration, no substitution of similar magnitude was observed in Colombia during the 1998-1999 crisis; this country's tradition of issuing public-sector securities with a minimum maturity of one year is a significant part of the explanation.

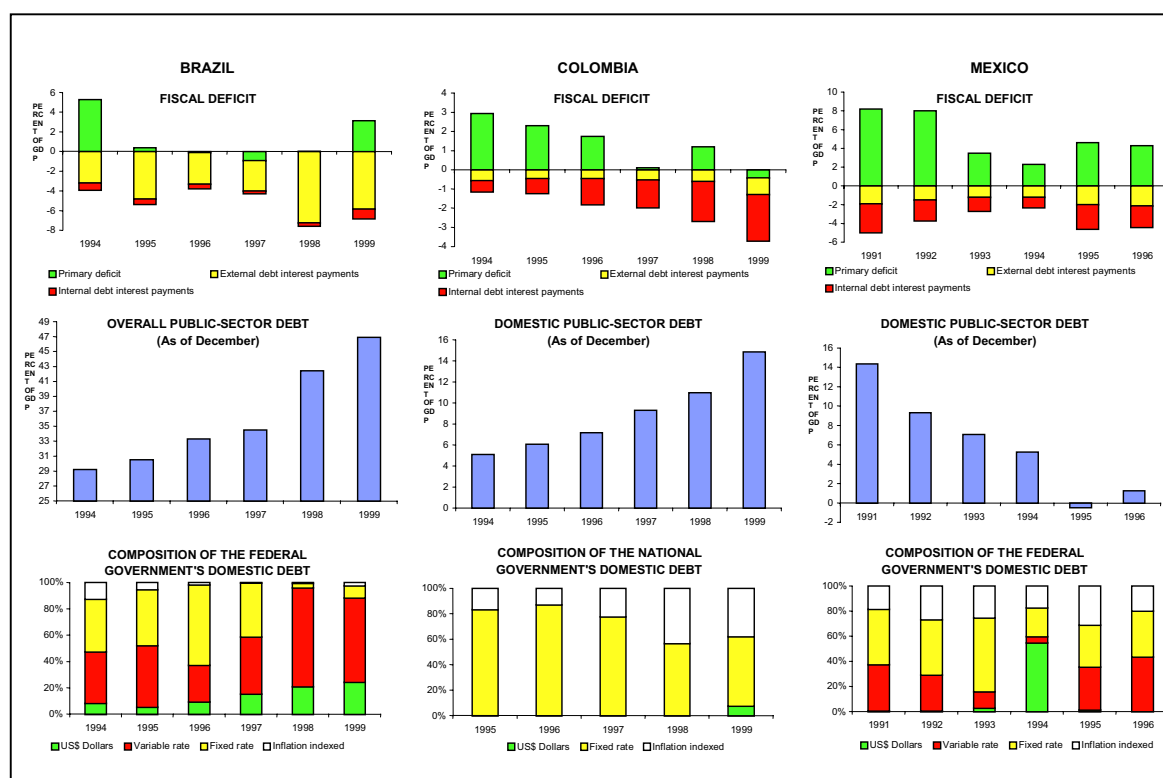
The extent to which it will prove possible to issue longer-term domestic debt securities will depend on the depth of the local capital market, particularly the secondary markets that provide liquidity to those securities. For this reason, measures designed to deepen the countries' credit and capital markets play a crucial role in improving domestic debt profiles. This statement is also valid with regard to the adequate development of long-term private capital markets. However, due to the lower risk levels and the greater homogeneity of the securities it issues, the central government has a vital function to perform in the development of longer-term primary and secondary markets for securities, including the provision of benchmarks for private-sector securities.

¹⁷ ECLAC (1998b, chapter VIII).

¹⁸ See Sachs, Tornell and Velasco (1996) and Ros (2001).

Figure 5

FISCAL DEFICIT AND PUBLIC DEBT, COLOMBIA



Source: Central Bank of Brazil, IDEA and Ministry of Finance of Colombia, Secretary of Finance and Public Credit of Mexico, Bank of Mexico.

The development of such markets will not eliminate, however, the need for an active external liability policy, as deeper capital markets are also more attractive to volatile portfolio flows. Unfortunately, the trade-offs are not simple in this regard, as the participation of international mutual funds may help to deepen domestic capital markets. Thus, the authorities must choose between reduced volatility of capital flows and the development of deeper, liquid domestic markets. The Chilean decision to eliminate the one-year minimum maturity for portfolio flows in May 2000, as well as the Colombian decision in 1996 to allow foreign investment funds to participate in the domestic market for public-sector securities, may be understood as a choice for the second of these options at the cost of additional capital account volatility. This is, in fact, what happened with portfolio flows in Colombia during the 1998-1999 crisis.

IV. Counter-cyclical prudential regulation and supervision

One of the painful lessons that has been learned during recent decades in Latin America, as in the rest of the world, is just how costly financial crises are in terms of duration and cumulative loss of GDP.¹⁹ Some of the greatest costs have to do with the sharp reduction in the time horizon of firms experiencing difficulties, which is also associated with the fact that property rights become largely indeterminate during crises (i.e., the proportion of assets which will ultimately be owned by stockholders vs. lenders is subject to significant uncertainties). The losses are not only of a short-term character, since they involve physical assets of firms as well as intangibles (including human and social capital and firms' business reputation, along with the consequent loss of business contacts) that have taken years to build up. Moreover, these losses are incurred even if the firm manages to restructure and survive. Also, the credit system is paralyzed for long periods, thereby impeding the economic recovery.

The fiscal and quasi-fiscal costs of bank rescues are also very high: 4% to 5% of GDP in relatively small crises, such as those of Colombia in the early 1980s and late 1990s; some 15% of GDP in severe ones, such as those that hit Mexico and Venezuela in the mid-1990s or South Korea in the late 1990s; and 35% of GDP or more in full-blown crises, such as those that engulfed Argentina and Chile in the early 1980s or Indonesia in the late 1990s. Thus, one of the best

¹⁹ See IMF (1998, chapter 4). On the situation in Latin America, see also Rojas-Suárez and Weisbrod (1996) and ECLAC (2002).

fiscal investments that a country can make is to avoid a financial crisis. This means that private risks accumulated by financial intermediaries during booms incorporate a substantial component of public-sector risk. This fact constitutes a powerful argument for State intervention.

The origins of problems that erupt during financial crises are well known. Generally, they are the result of a rapid increase in lending and weak prudential regulation and supervision, a combination that becomes explosive under conditions of financial liberalization in the midst of an external capital-market boom. The underestimation of risks characteristic of environments of economic optimism is then mixed with inadequate practices for evaluating risks, both by private agents and by supervisory agencies.

This underscores just how important the sequencing of financial liberalization processes is and, in particular, how necessary it is to make eventual capital account liberalization contingent upon the prior establishment of appropriate prudential regulation and supervision and the design of satisfactory information systems to guarantee a proper microeconomic operation of markets. Since the learning process —by financial intermediaries, depositors and the authorities— is not instantaneous, the liberalization process needs to be gradual in order to provide enough time for financial intermediaries to learn how to manage higher risks, for depositors to learn how to use the new information channels, and for the authorities to learn how to supervise the system and how to modify prudential regulations and reporting requirements on the basis of accumulated experience.

Prudential regulation should ensure, first of all, the solvency of financial institutions by establishing appropriate capital adequacy ratios relative to the risk assumed by lending institutions, strict write-offs of questionable portfolios and adequate standards of risk diversification. In developing countries, the corresponding regulations should take into account not only the microeconomic but especially the macroeconomic risks they face. In particular, due attention needs to be paid to the links between domestic financial risks and variations in interest and exchange rates. In view of the greater financial volatility that characterizes these countries, capital standards should probably be higher than those proposed by the Basle Committee on Banking Supervision of the Bank for International Settlements. On the other hand, strict regulations should be established to prevent currency mismatches (including those associated with off-balance-sheet operations), to reduce imbalances in the maturities of assets and liabilities of financial intermediaries and to ensure the timely write-off of past-due loans. Prudential regulation should be particularly strict with respect to the intermediation of short-term external credits.

In addition, prudential regulation needs to ensure adequate levels of liquidity for financial intermediaries so that they can handle the mismatch between average maturities of assets and liabilities associated with the financial system's essential function of transforming maturities, which generates risks associated with volatility in deposits and/or interest rates. The most important innovation in this area is undoubtedly the Argentine system created in 1995, which sets liquidity requirements based on the residual maturity of financial institutions' liabilities (i.e., the number of days remaining before reaching maturity).²⁰ These liquidity requirements —or a system of reserve requirements with similar characteristics— have the additional advantage that they offer a direct incentive to the financial system to maintain a better liability structure. The quality of assets in which liquidity requirements are kept is obviously essential. In this regard, it must be pointed out that allowing them to be invested in public-sector bonds has increased the vulnerability of the Argentine financial system to public-sector debt restructuring.

Properly regulated and supervised financial systems are structurally superior in terms of risk management. Nonetheless, they are incapable of internalizing all the collective risks assumed during booms, which are essentially of a macroeconomic character and entail, therefore, coordination problems that exceed the capacity of any one intermediary. Moreover, they have a pro-

²⁰ Banco Central de la República Argentina (1995, pp. 11-12).

cyclical bias in the way they operate. In fact, it is during crises that, albeit with some delay, the excess of risk assumed during economic booms becomes evident. This ultimately makes it necessary to write off loan portfolios, thereby reducing financial institutions' capital and, hence, their lending capacity. This, in conjunction with the greater subjectively perceived level of risk, is what triggers the "credit squeeze" that characterizes such periods.²¹

This is why instruments need to be designed that will introduce a counter-cyclical element into prudential regulation and supervision. To guarantee this, provisions should be estimated when loans are disbursed on the basis of expected losses, taking into account the full business cycle, rather than on the basis of loan delinquency or short-term expectations of future loan losses, which are highly pro-cyclical. This means, in fact, that provisioning should approach the criteria traditionally followed by the insurance rather than the banking industry.

The major innovation in this regard has been the forward-looking provision scheme introduced by Spain in December 1999 (Banco de España, 2000; Poveda, 2000). Under this scheme, actuarial provisions for "latent" risks are estimated for homogenous categories of credit according to the possible loss that a typical asset (loans, guarantees, interbank or fixed-income portfolio investments) in this category is expected to have, estimated on the basis of a full business cycle.

The system is, strictly speaking, "cycle-neutral" rather than counter-cyclical, but it is certainly superior to the traditional pro-cyclical provisioning for loan losses. So, if necessary, a system such as this can be complemented by strictly anti-cyclical "prudential provisions" applied by the regulatory authority to the financial system as a whole, or by the supervisory authority to certain financial institutions on the basis of objective criteria (e.g., the rate of credit growth or the growth of credit for specific high-risk activities). Such counter-cyclical prudential provisions, together with liquidity requirements, are superior to the possible use of capital adequacy ratios for this purpose. This means that capital adequacy requirements should focus on long-term solvency criteria rather than on cyclical performance. Voluntary prudential provisions can also be encouraged. In all cases, it is essential that adequate tax deductibility be granted for provisions. This would, indeed, make provisions a preferable instrument for banks to manage the effects of the business cycle.

Other instruments should also be strengthened during periods of financial euphoria to take into account the increasing risks that financial intermediaries are incurring. Within the realm of monetary and credit policy, higher reserve requirements or restrictions on credit growth during boom periods can perform this function.²² If assets generate considerable differences in risks, credit ceilings could be established for certain sectors (e.g., consumer loans, for non-residential construction, etc.). Within the sphere of regulatory policy, this function can be performed by higher liquidity requirements during booms, especially for short-term liabilities. Ceilings on the reference price for stocks and real estate assets used as collateral (e.g., a provision under which no more than a specified, decreasing proportion of an asset's commercial value may be used for this purpose) or stricter loan-to-value ratios could also be imposed. Deposit insurance may also be raised, and stricter standards for debt classification and write-offs could be adopted. Supervision can also be made stricter during booms, particularly for intermediaries experiencing rapid credit growth, which can be required to undertake stress or other special risk tests.

During financial crises, although authorities must adopt clearly defined rules to restore confidence, the application of stronger standards should be gradual in order to avoid a credit squeeze. Of course, in order to avoid moral hazard problems, authorities must never bail out the owners of financial institutions, guaranteeing that their net worth is written off if the institutions are intervened.

²¹ For a recent analysis of these issues and policy alternatives for managing them, see Bank for International Settlements (2001, chapter VII); and Borio *et al.* (2000).

²² For an analysis of some of these alternatives, see the sources quoted in footnote 23 and Stiglitz and Bhattacharya (2000).

It must be emphasized that prudential regulation and supervision have limits and costs that cannot be overlooked. Stricter standards in developing countries to manage macroeconomic risks increase the costs of financial intermediation, reducing international competitiveness and creating arbitrage incentives to use international financial intermediation as an alternative. Some classic objectives of prudential regulation, such as risk diversification, may be difficult to guarantee when macroeconomic issues are at the root of the difficulties. Moreover, prudential regulation involves some non-price signals, and prudential supervision is rife with information problems and is a discretionary activity susceptible to abuse, so the powers of the authorities must be subject to strict limits and controls.

V. Counter-cyclical fiscal policy

Regardless of what exchange-rate and capital-account regime countries choose, fiscal policy always provides a useful anti-cyclical device. The importance of countering excess fiscal spending during booms became quite clear in Latin America during the debt crisis of the 1980s, since the over-expansion of public expenditure during the preceding credit boom generated fiscal imbalances that ultimately proved to be untenable. The subsequent spending cuts greatly reduced the benefits of public expenditures: investment projects were left unfinished or took much longer to execute than planned, thereby raising their effective cost; the existing structure for the provision of public and social services became disjointed; reductions in real wages led to the loss of valuable staff; and the entire civil service was disrupted. Two lessons were thus painfully learned: that the lack of fiscal discipline during booms is extremely costly, and that "go-stop" cycles significantly reduce the efficiency of public-sector spending.

The return to a more orthodox policy stance in the 1990s has, nonetheless, maintained unmistakably pro-cyclical fiscal practices (ECLAC, 1998b; Martner, 2000, chapter 5). This is attributable to the pro-cyclical performance of public revenues in the context of high GDP volatility. Under these conditions, setting fiscal targets independently of the business cycle implies that public-sector spending during booms is partly financed by transitory revenues. Moreover, the tendency of debt service to increase during crises as a result of variations of interest and exchange rates in the face of external shocks, imply that primary fiscal (particularly investment) spending must adjust pro-cyclically to meet short-term fiscal targets. This tends to maintain the inefficiencies in public-sector spending characteristic of

"go-stop" cycles. Moreover, through this mechanism, fiscal performance enhances the already excessive volatility of economic activity.

At the same time, other pro-cyclical patterns have become more important than in the past, particularly those associated with the granting of explicit or implicit guarantees to the private sector. Cases in point include explicit and implicit financial guarantees, which are reflected during crises in rescue packages for both domestic financial intermediaries and private firms with large external liabilities. A second, more novel case, is that of public-sector guarantees for private-sector investments in infrastructure (such as minimum revenue or profit guarantees, or explicit coverage of interest or exchange rate risks). Both types of guarantees have three elements in common: (a) they are not always transparent; (b) they encourage private spending during booms (it is, thus, during periods of euphoria that implicit public-sector spending in the form of an equivalent "insurance premium" is actually incurred, indicating that accrued public-sector spending is underestimated); and, (c) disbursements (cash spending) are incurred during crises, increasing borrowing requirements and crowding out other public-sector spending. Thus, such guarantees encourage pro-cyclical private-sector spending in non-transparent ways.

This means that fiscal reforms must both firmly establish the principle of fiscal sustainability and adopt targets that avoid pro-cyclical biases in fiscal policy. The first objective has been reflected in the adoption of fiscal responsibility laws in several Latin American countries in recent years. The second implies that fiscal targets should be based on a definition of the desired structural fiscal surplus or deficit or, alternatively, of a medium-term public-sector debt-to-GDP target. The short-term surplus or deficit would then be determined on the basis of that structural stance and current deviations from potential GDP.

An important complement to this new way of determining fiscal policy would be to design mechanisms to temporarily sterilize public-sector revenues. The experience gained from the use of stabilization funds for commodities having a significant fiscal impact—the National Coffee Fund in Colombia, the copper and petroleum stabilization funds in Chile and, more recently, the petroleum stabilization funds of Colombia and Venezuela—must be extended to develop broader fiscal stabilization funds (ECLAC, 1998b).

The magnitude of resources accumulated in a fiscal stabilization fund would depend on the income elasticity of public-sector revenues. However, the tax structures of Latin America generally lack a high degree of elasticity, basically due to the low share of corporate income tax revenues, the item with the highest income elasticity in industrialized countries (Martner, 2000, chapter 5). For this reason, flexible tax rates could be used as a complementary instrument, particularly in the face of sharp private spending cycles. The best candidate is obviously a tax on the source of the spending booms. This is the traditional argument for taxing exports subject to temporary price bonanzas, which has served as the basis for the design of traditional commodity stabilization funds. A similar argument can be used to justify a tax on capital inflows, as this is the major source of the private-sector spending boom today (Marfán, 2001). It is interesting to note that this argument is additional to those associated with the greater monetary autonomy that such an instrument can provide (see Section III). Indeed, it holds true even if such an instrument is totally ineffective in reducing capital inflows. Moreover, under those conditions, revenues are actually maximized; if saved,²³ they will thus facilitate the adoption of an anti-cyclical fiscal policy. A second-best argument will lead to temporary hikes of VAT rates under such conditions (Budnevich and Le Fort, 1997).

The alternative of using counter-cyclical public-sector spending policies to offset private-sector spending cycles is more controversial. A well-designed social safety net to protect vulnerable groups during crises is the best alternative in this regard. Indeed, an essential advantage of

²³ This includes cases in which the revenues are reflected in a quasi-fiscal surplus of the central bank that is not transferred to the government.

social safety nets is that the associated spending is intrinsically counter-cyclical. In other cases, offsetting mechanisms are more controversial. Go-stop public-sector spending policies are inefficient, as we have seen. Moreover, an excessive reliance on counter-cyclical public-sector spending policies—rather than a more balanced mix which also relies on fiscal revenues and stabilization funds—may generate disequilibria between supplies of public and private goods that can have substantial distributive effects, as the recipients of goods and services provided by the public sector are not the same agents as those that benefit from private spending. For these reasons, it is certainly preferable to determine the growth of public-sector spending (aside from that associated with social safety nets) on the basis of long-term criteria.

These tax and spending policies must be complemented by adequate mechanisms to manage public-sector guarantees. With respect to financial risks, the liability and anti-cyclical regulatory policies analyzed in previous sections of this paper are the proper answer. In relation to other guarantees, it is necessary for the “insurance premium equivalent” of such guarantees to be regularly estimated and budgeted and for the corresponding resources to be transferred to special funds created to serve as a backup in the event that the corresponding contingencies become effective.

Finally, it should be emphasized that an anti-cyclical fiscal policy greatly facilitates a broad-based prudential regulation of booms. In particular, the counterpart of the resources accumulated in fiscal stabilization funds during booms would be increased foreign exchange reserves and reduced currency appreciation. Such reserves also provide “self-insurance” against sharp cuts in foreign exchange availability and are the necessary counterpart to smoother fiscal adjustment during crises.

VI. Conclusions

The volatility of capital flows generates a strong pro-cyclical performance in developing countries. An essential part of the solution to this problem lies in strengthening the institutional framework for the prevention and management of financial crises at the global level. This paper focuses, however, on the role of domestic anti-cyclical policies in the developing world, which are a necessary counterpart of such an international architecture.

The basic argument made in this paper is that adequate counter-cyclical policy packages can be adopted based on a mix that involves: (a) managed exchange rate flexibility cum capital account regulations; (b) strong “liability policies” aimed at improving private- and public-sector debt profiles; (c) strong prudential regulation and supervision of domestic financial systems, with anti-cyclical components; and (d) a counter-cyclical fiscal policy based on general fiscal stabilization funds.

Given the more reduced degrees of freedom that developing-country authorities possess in today’s globalized world, all policies have, nonetheless, limited effects. Thus, pragmatic strategies in which these different elements support each other in their anti-cyclical task are called for. The specific emphasis will vary depending on the macroeconomic constraints and traditions of each particular country.

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