Part II

Policy Options for Developing Countries to Counter Boom-Bust Cycles

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Counter-Cyclical Policies in the Developing World

José Antonio Ocampo

1 Introduction

The volatility and contagion characteristic of international financial markets which dominated emerging economies during the 1990s have long historical roots.[1] Indeed, from the mid-1970s to the end of the 1980s, Latin America and 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 and the intensity of boom-bust cycles have been distinctive features of the recent decade.

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 phase of adjustment, in which not only these risks are exposed but also 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 solutions to these problems lies in strengthening the institutional framework to prevent and manage financial crises at the global level.[2] This paper looks, however, at the role of developing countries' domestic policies in managing the pro-cyclical effects of externally generated boom-bust cycles. It draws from an extensive recent literature on the subject[3] and from the experience of Latin America in the 1990s.[4] It is divided into seven sections. The first two look at the international asymmetries that lie behind and the specific macroeconomics of boom-bust cycles in the developing world. The following four sections

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).

3 Among the many recent contributions to the analysis of this issue, see CEPAL/ECLAC (1998a, Part Three; 2000a, Chapter 8), Ffrench-Davis (1999), Furman and Stiglitz (1998), Helleiner (1997), Ocampo (2001) and World Bank (1998), Chapter 3.

4 Latin America's experience is regularly analysed in ECLAC's economic surveys. See also CEPAL/ECLAC (2000a, 2001a and 2001b).

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look at the exchange rate regime, liability policies, prudential regulation and supervision, and fiscal stabilisation. The final section presents some conclusions.

2 International Macroeconomic and Financial Asymmetries

The dynamics of boom-bust cycles is deeply rooted in the operation of financial markets, but also in some basic asymmetries which characterise the world economy. These asymmetries have largely (though not exclusively) centre-periphery dimensions. The first of them is basically macroeconomic. It is closely associated to the fact that the centre economies' national currencies (now regional in the case of most members of the European Union) are also international currencies. This gives them some degree of freedom in the use of national monetary policies to manage domestic business cycles – although this might come at the possible cost of exchange rate fluctuations in the current world of floating exchange rates among major currencies. Through the effects of monetary policies on economic activity and the exchange rates, the centre economies generate externalities to the rest of the world that are not internalised by policymakers. These externalities are intensely felt in the developing world, which must adjust to them, lacking the freedom that the ability to supply international currencies provides. Putting it succinctly, whereas the centre of the world economy is made of "policy *making*" economies, the periphery is largely "policy *taking*".

Indeed, developing countries are expected to behave in ways that generate "credibility" to financial markets, which implies, in particular, that they are expected to adopt pro-cyclical (austerity) policies during crises. This generates, in turn, economic *and* political economy pressures to also adopt pro-cyclical policies during booms. Non-financial agents and financial intermediaries resist restrictions that authorities may impose on their ability to spend or lend during booms, whereas authorities are only happy to have some breathing space after a period of austerity. Expressed in another way, not only are the incentives to adjust absent during booms, but the drastic application of austerity rules during crises distorts the incentives that economic agents and authorities face *throughout* the business cycle.

The sharp distinction between "policy takers" and "policy makers" certainly goes a long way to summarise a major feature of the international economy today. However, it should be qualified in two important ways. First of all, to the extent that there are domestic policy alternatives, developing countries are not entirely "policy takers". This paper is precisely

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focused on such anti-cyclical policy alternatives. This does not, however, eliminate the basic assertion that current incentives in the world order push them in the opposite direction, i.e. towards pro-cyclical policies. Second, the degrees of freedom of macroeconomic policy vary greatly among the centre economies, and are certainly greater in the country that has the major international currency (the United States) than in the rest of the industrial world.

The macroeconomic asymmetry we have emphasised has, as a counterpart, basic asymmetries in financial markets. Four must be singled out:

(a) between the size of developing countries' domestic financial markets and the size of the speculative pressures they may face;[5]
(b) the nature of the currencies in which external debt is denominated;
(c) significant difference in the maturities supplied by domestic financial institutions; and
(d) the depth of domestic financial (particularly security) markets.

Viewed as a whole, this implies that domestic financial markets in the developing world are significantly more "incomplete" than those in the industrial world, indicating that some financial intermediation must necessarily be done through international markets. It also implies that integration into international financial markets is integration between unequal partners.[6]

The associated risks can only be partly covered (e.g. currency risks of large non-financial intermediaries) or partly corrected by domestic policy actions. However, most of the policy actions that emerging economies can adopt to prevent risks merely reflect (or reproduce) rather than correct the macroeconomic and financial asymmetries we have mentioned. In a very deep sense, developing countries thus face *country* rather than *currency* risks; the latter are, in a way, a mere manifestation of the former.

3 The Macroeconomics of Boom-Bust Cycles

The association between capital flows – and, more particularly, the net resource transfer – and economic growth has been a strong feature of Latin America in the 1990s (and, for that matter, the past quarter century), as Figure 1 indicates. This fact highlights the central role played by the mechanisms by which externally generated boom-bust cycles are transmitted.

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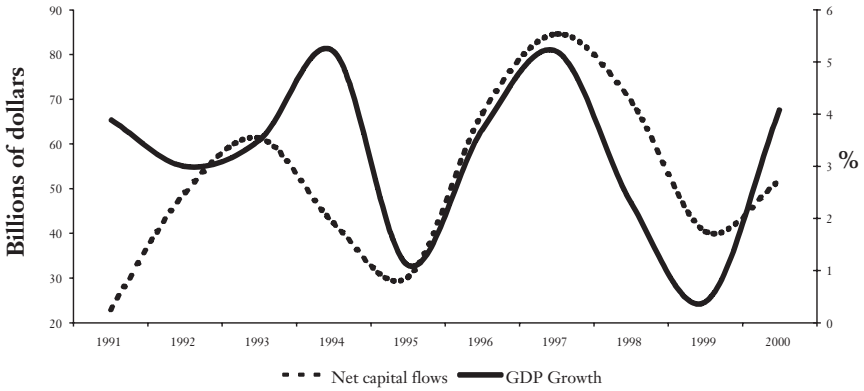
5 See, on this, the very interesting remarks of the Council on Foreign Relations Task Force (1999), Chapter III.

6 CEPAL/ECLAC (2000a, Chapter 8); Studart (1996). Hausmann's (2000) concept of "original sin" captures the second and third of these asymmetries.

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, and to the degree of mistrust generated among market agents. Temporary 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, to significant asymmetries in risk evaluation during booms and crises. Private sector debt overhangs accumulated during the boom will subsequently trigger a sharp contraction in lending, usually accompanied by a deterioration in bank portfolios.

Figure 1 Latin America: Net Capital Inflows and GPD Growth
(billions of dollars and percentages)



Source: ECLAC.

Furthermore, poor prudential regulation and supervision of financial systems, and a lack of experience of financial agents in evaluating risks will lead to a significant underestimation of risks, reinforcing the credit expansion during the boom. Both phenomena are characteristics of periods of rapid financial liberalisation. 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 financial instruments and real estate). This produces a wealth effect that, in turn, accentuates the boom in

spending, but the reverse will hold when spending, borrowing and, consequently, asset prices fall.

Capital account booms – as well as high export prices – will also induce exchange rate appreciation and strong adverse pressures on exchange rates and interest rates during the ensuing busts. In turn, exchange rate fluctuations will have significant wealth effects in countries with large net external liabilities. The capital gains generated by appreciation during booms further fuel the spending boom, whereas the capital losses generated by depreciation have the opposite effect and may weaken domestic financial intermediaries. Thus, the wealth effects of exchange rate variations are certainly pro-cyclical in debtor countries. The income effects may have similar signs, at least in the short run.

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 in the production process. For all of these reasons, it discourages investment. The higher risk levels faced by the domestic financial system biases lending to shorter maturities, reducing its ability to intermediate the savings-investment process and generating a riskier financial structure (see Section 5). In turn, exchange rate appreciation during booms may generate "Dutch disease" effects on tradable sectors which become permanent if significant learning processes are present.[7] In social terms, there is growing evidence in Latin America of ratchet effects of employment, poverty and income distribution through the business cycle, associated to permanent losses in human capital during crises.[8]

The most important policy implication of the high costs of externally-generated boom-bust cycles is that the 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 of attention in crisis prevention recognises, moreover, an obvious fact: that the degree of freedom of the authorities may be greater

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7 This is a characteristic of "Dutch disease" effects in their dynamic version. See Krugman (1990, Chapter 7) and van Wijnbergen (1984).

8 The aggregate unemployment rate of Latin America (and of several individual countries) shows such a pattern: a sharp increase during the "Tequila" crisis that had not been entirely reversed when the Asian crises hit and increased it again. The evolution of poverty in the region over the past two decades shows the same pattern: an increase in the 1980s that was not entirely reversed in the 1990s, despite the fact that by the end of decade per-capita GDP was above the 1980 level. The patterns of poverty in Argentina and Mexico through crisis and recovery show a similar performance, as reflected in the fact that by 1997 and 1998 poverty was not back to 1994 levels. See CEPAL/ECLAC (2000a, Chapter 8; 2000b, Chapter 1) and Lustig (2000).

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 anti-cyclical monetary and financial policies; (b) strong "liability policies" to improve the debt profiles of the countries (which include but go beyond capital account regulations); (c) an anti-cyclical management of prudential regulation and supervision of domestic financial systems; and (d) fiscal stabilisation. All policies have limited effects, given the reduced degree of freedom that authorities face and the reduced effectiveness of some instruments in globalised markets. Thus, pragmatic policy mixes 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.

4 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 demands are closely associated to the more limited degree of freedom that authorities face in a world of limited policy instruments and reduced policy effectiveness.

The first is a demand for stability. It comes from trade, but also from the capital account and domestic price stability. With the dismantling of traditional trade policies, the real exchange rate has become a key determinant of international competitiveness. Given the central role that exports play in the growth process, competitive real exchange rates are essential for sustained economic growth. 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 with significant liabilities denominated in foreign currencies.[9] Finally, from the point of view of macroeconomic policy, stability is associated with the need to anchor the price level as part of anti-inflationary programmes or, more generally, to guarantee price stability in small open economies. It should be emphasised that these two demands for stability may be inconsistent with that which comes from trade. Thus, an anti-inflationary programme or hard pegs lead

9 See, for example, Hausmann (2000) and Calvo (2000).

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many times to overvalued exchange rates that run counter to the objective of international competitiveness.

The second is a demand for flexibility. It also comes from both the trade and the capital account. On the trade side, exchange rate flexibility has been traditionally seen as a useful instrument to accelerate real exchange rate adjustments in the face of external shocks (terms of trade changes, exchange rate adjustments or growth trade of major trading partners, etc.). Also, boom-bust cycles in international capital markets generate a demand for flexible macroeconomic variables to absorb, in the short run, the positive and negative shocks they generate. Given the reduced effectiveness of some traditional policy instruments in open economies, particularly monetary policy, the exchange rate plays an essential role in helping to absorb such shocks. This demand for flexibility explains the fairly broad trends towards greater exchange rate flexibility that characterises the world economy since the breakdown of the dollar standard in the early 1970s.

The relevance of these conflicting demands is not captured in the call by many analysts to adopt either of the two polar exchange rate regimes, either a totally flexible exchange rate or a currency board (or outright dollarisation). Indeed, the case for polar regimes is a call to recognise 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 abandoned. The "revealed preference" of authorities in the developing world has been, on the contrary, to choose intermediate regimes of managed exchange rate flexibility (such as crawling pegs and bands, and dirty flotation), in an attempt to reconcile these conflicting demands.[10]

Currency boards certainly introduce built-in institutional arrangements that provide for fiscal and monetary discipline, but they reduce and, in the limit, eliminate the room for stabilising monetary and credit policies – both of them necessary to prevent crises and to facilitate recovery in a post-crisis environment. It thus tends to generate stronger swings in economic activity and asset prices. Probably as a result of this, these arrangements are not speculation-proof. More generally, they are not free from pro-cyclical, externally induced pressure on interest rates. In this regime, adjustment to cyclical or structural overvaluation (if the economy gets "locked" in an overvalued exchange rate during the transition) is painful, as it relies on open deflation to operate. Structural overvaluation in a currency board regime may thus become a bet to slow economic growth (mixed with strong business cycles).

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10 For recent defenses of intermediate regimes, see CEPAL/ECLAC (2000a, Chapter 8), Frankel (1999), Williamson (2000) and part III of this volume. For an interesting review of the recent controversy on exchange rate regimes, see Velasco (2000).

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 specialisation, and may be subject to "Dutch disease" effects during booms. Moreover, they run the risk of merely becoming a different way of transmitting boom-bust cycles through the pro-cyclical wealth and (possibly) income effects of exchange rate variations. Moreover, anti-cyclical monetary or credit policies under freely floating exchange rate regimes with open capital accounts enhance cyclical exchange rate fluctuations. Indeed, the key problem faced by the authorities during booms in economies with open capital accounts is that the capital market exerts downward pressure on interest rates, appreciation pressure on the exchange rate, or a combination of the two. In these cases, any attempt by policymakers to counteract the upward trend in private and public spending by using contractionary monetary policies will only fuel the trend towards exchange rate appreciation. The opposite occurs during crises. Thus, if authorities consider that the exchange rate fluctuations generated by boom-bust cycles are too strong to start with, they may be encouraged to use monetary policy to smooth out such fluctuations. Thus, the "monetary autonomy" features of free floating may not materialise.

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 an anti-cyclical monetary and credit policy without enhancing pro-cyclical exchange rate patterns. This is only possible in managed exchange rate regimes *cum* capital account regulation. It is only in this case that we can speak of effective, though certainly limited, "monetary autonomy". During periods of euphoria, this means that macroeconomic policies must focus on mitigating upward pressures on private and public sector spending through contractionary monetary (classical open market operations, sterilised accumulation of international reserves, and higher reserve or liquidity requirements) or credit (caps on credit growth) policies, supported by capital account regulations that restrict the additional capital inflows induced by upward pressures on domestic interest rates. During crises, it means that the ability to effectively use monetary policy as an expansionary policy tool without generating excessive devaluation may require effective regulations to avoid capital outflows. To avoid credibility issues and guarantee effectiveness, the basic mechanisms of capital account regulation should be in place *throughout* the business cycle, and should be tightened or loosened depending on the phase of the cycle (see Section 5 below).

Although intermediate regimes thus provide the only framework for anti-cyclical policies in "business cycle/policy taking" countries, and thus some degree of "monetary autonomy", their scope is limited. First, it

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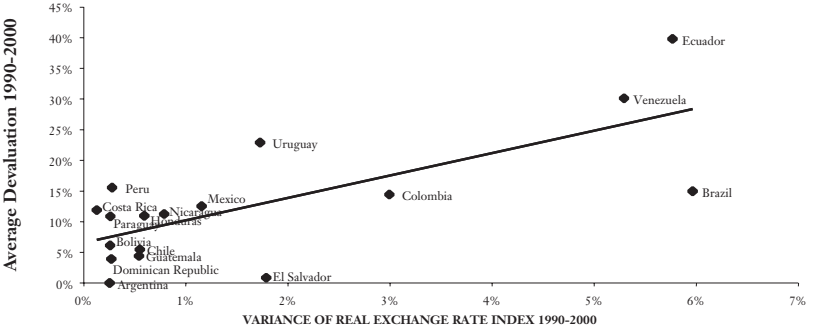
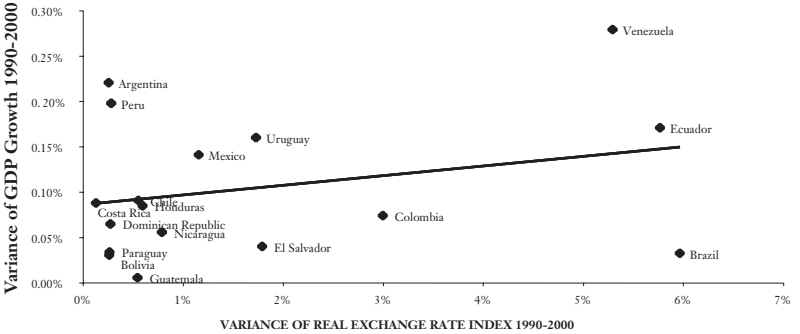
Figure 2 Macroeconomic Stability in Latin America

A. Average Devaluation 1990-2000 vs. Variance of Real Exchange Rate Index



B. Variance of GDP Growth 1990-2000 vs. Variance of Real Exchange Rate Index



C. Average GDP Growth 1990-2000 vs. Variance of Real Exchange Rate Index

Source: ECLAC.

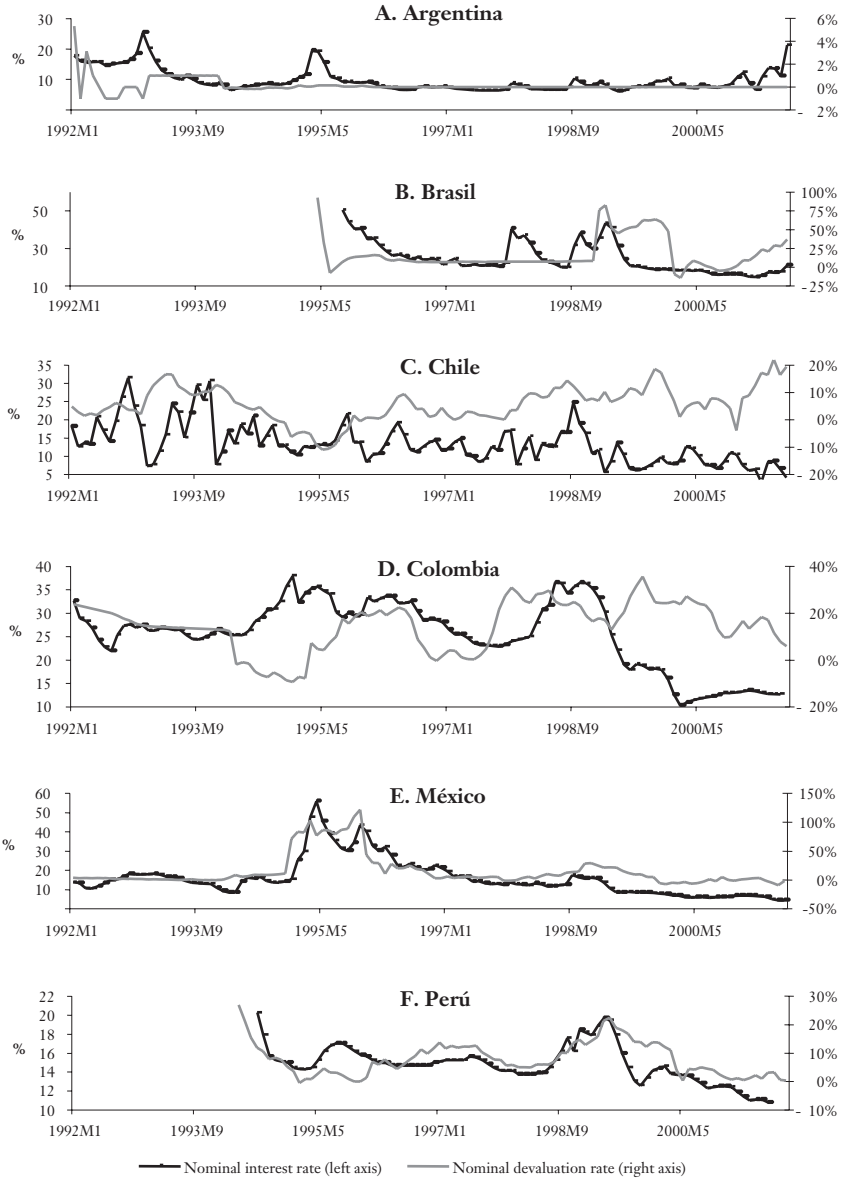
depends on the effectiveness of capital account regulations as a macroeconomic policy tool, a point which we will return to below. Second, all intermediate ("dirty") options are subject to speculative pressures if they do not generate credibility in markets, and the costs of defending the exchange rate from pressures is very costly in this context. Third, sterilised reserve accumulation during booms is also costly. Although the additional reserves may provide additional "self-insurance" during the ensuing crises, sterilisation may generate significant quasi-fiscal losses.

Available Latin American evidence is difficult to evaluate in the light of incomplete evidence on certain regimes (particularly, the absence of sustained clean floats – the closest example being Mexico since the Tequila crisis) and frequent regime changes. 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 histories, including Argentina's currency board but also Costa Rica's crawling peg (*cum* highly publicly-controlled domestic financial sector) and Peru's highly managed float. The highest volatility has been characteristic of Brazil which tried, unsuccessfully, to defend an overvalued exchange rate inherited from the Real Plan. El Salvador, with a virtual peg, and Colombia, which had through most of the decade a system of exchange rate bands, have also experienced high real exchange rate volatility. On the other hand, there is only weak association between real exchange rate volatility and GDP volatility, and only a weak negative association between the first of these variables and GDP growth. Argentina, under the currency board regime, may be viewed as an example of lack of exchange rate flexibility generating high GDP volatility (the highest in the region after Venezuela).

Generally speaking, authorities have found it difficult to undertake anticyclical monetary policies under *all* regimes. Broadly speaking, interest rate movements follow the external cycle in all countries: an increase during the Tequila crisis, a reduction during the capital boom that followed, and an increase during the 1997-1999 international financial crisis (see Figure 3). The intensity of these cycles varies according to country and through time. Argentina under the currency board has not been immune to upward pressures on interest rates during crises – strong during the Tequila crisis and somewhat weaker but repetitive during the recent crisis – and, as indicated, has experienced the strongest business cycle. However, the highest interest rates have been characteristic of episodes in which the authorities have used contractionary monetary policy to avoid or slowdown devaluation pressures in the foreign exchange market. This is the case of Brazil from late-1997 to early 1999, Chile in the second semester of 1998, Colombia during most of 1998 and part of 1999, Mexico during the Tequila crisis,

Figure 3 Domestic Interest Rates and Devaluation in Latin America Countries



Source: ECLAC, based on central banks statistics.

and Peru during the second semester of 1998 and most of 1999. All these episodes were very costly in terms of economic activity. The parallel movement of exchange rates and interest rates is striking in some countries, particularly in Mexico and Peru. True episodes of "monetary autonomy", in the sense that we have used this term above, have been rare, but have been more frequent in Chile and Colombia, the two countries that have used more actively capital account regulations as a complement to exchange rate policy.

5 Liability Policies

The accumulation of risks during booms will depend not only on the magnitude of domestic and private debts 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.[11]

Viewed as a macroeconomic policy tool, capital account regulations are aimed at the direct source of the boom-bust cycles: unstable capital flows. If they are successful, they will provide some room 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 sterilised foreign exchange accumulation. During crisis, they may also provide "breathing space" for expansionary monetary policies.

Viewed as a liability policy, capital account regulations recognise the fact that the market generously rewards sound external debt structures.[12] This is because, 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 time profile that leans towards 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 maturity structures, of both the private and the public sector, and both external and domestic liabilities.

The greatest innovation in this sphere made during the 1990s was unquestionably the establishment of reserve requirements for foreign-

11 The emphasis on liabilities rather than balance sheets here recognises the fact that they are the most important element of national balance sheet for short-term macroeconomic purposes, together with liquid assets.

12 An excellent recent treatment of this issue is Rodrik and Velasco (2000).

currency liabilities in Chile and Colombia. The advantage of this system is that it creates a non-discretionary prudential price incentive that penalises short-term foreign-currency liabilities more heavily. The corresponding levy is significantly higher than the level that has been suggested for an international Tobin tax.[13]

There is fairly broad agreement on the effectiveness of this mechanism as a liability policy, but considerable controversies about its role as a macroeconomic policy tool.[14] Indeed, as indicated in the last section, neither country has been free from pro-cyclical macroeconomic policy patterns. However, judging from the solid evidence on 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. In Colombia, where these regulations have been modified more extensively over the years, there is strong evidence that increases in reserve requirements have reduced flows[15] or, alternatively, have been effective in increasing domestic interest rates.[16]

Some problems in the management of these regulations have been associated with changes in the relevant policy parameters. The difficulties experienced in this connection by the two countries have differed. In Chile, the basic problem has been the variability of the rules pertaining to the exchange rate, since the upper and lower limits of the exchange rate bands (in pesos per dollar) were changed on numerous occasions until they were 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 has been the frequency of the changes in reserve requirements. Changes foreseen by the market have 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 have been seen as a complement to, rather than as a substitute for, other macroeconomic policies which have been certainly superior in Chile.

The three basic advantages of this regime are its prudential nature, its simplicity and its non-discretionary character. Capital account regulations

13 The equivalent tax in 1994-1998 was about 3% in the Chilean system for one-year loans, and an average of 13.6% for one-year loans in Colombia and 6.4% for three-year loans.

14 For documents which support the effectiveness of these regulations, see Agosin (1998), Agosin and Ffrench-Davis (2001), Le Fort and Budnevich (1997), Le Fort and Lehman (2000), Cárdenas and Barrera (1997), Ocampo and Tovar (1999) and Villar and Rincón (2000). For an opposing view, see de Gregorio, Edwards and Valdés (2000) and Valdés-Prieto and Soto (1998).

15 Ocampo and Tovar (1999).

16 Villar and Rincón (2000).

during booms, which have a preventive character, are certainly preferable to crisis-driven quantitative controls during crises. Indeed, such controls generate serious credibility issues and may be ineffective since a tradition of regulation and supervision may be necessary to make them operative. Indeed, permanent regulation regimes that are tightened or loosened through the cycle are superior to the alternation of free capital mobility during booms and quantitative restrictions on outflows during crises. However, simple quantitative restrictions that rule out certain forms of indebtedness (e.g. short-term foreign indebtedness, except trade credit lines) may also be preventive in character and simpler to administer in underdeveloped regulatory regimes.

These direct regulations on the capital account can be partly substituted by prudential regulation and supervision as an alternative to capital account regulations. 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 foreign liabilities can be reduced and the provisions associated to such loans increased. The main problem with these options is that they have no effect on the foreign-currency liabilities of non-financial agents and indeed may encourage them to borrow more abroad. Accordingly, it needs to be supplemented with other disincentives for external borrowing by those firms, such as tax provisions applying to foreign-currency liabilities (e.g. allowing only partial deductions for interest payments abroad), public disclosure of the short-term external liabilities of firms and regulations requiring rating agencies to give special weight to this factor.[17]

In the case of the public sector, direct control by the Ministry of Finance (in some cases by the Central Bank) is the most important liability policy, including control on borrowing by other public sector agencies and autonomous sub-national governments.[18] Public sector debt profiles that lean too far towards short-term obligations may be manageable during booms, but may become a major destabilising factor during crises. This remark is equally valid for external and domestic public sector liabilities. The most straightforward reason for this is that 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 invest in domestic public sector securities.

Thus, when gross borrowing requirements are high, the interest rate will have to rise in order to make debt rollovers attractive. Higher interest rates are also immediately reflected in the budget deficit, thereby rapidly

17 For an analysis of this issue, see World Bank (1998), p. 151.
18 CEPAL/ECLAC (1998b), Chapter VIII.

changing the trend in the public sector debt, as happened in Brazil in the late 1990s. In addition, rollovers may be viable only if risks of devaluation or future interest rate hikes can be passed on to the government, generating additional sources of destabilisation. Mexico's widely publicised move to replace in 1994 peso-denominated securities (Treasury Certificates or Cetes) by dollar-denominated bonds (Tesobonos), 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.[19] 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 cancelled out the improvements that had been made in the public debt structure since the launching of the Real Plan. On the contrary, Colombia's excellent external debt profile and the relatively sound maturity structure of its domestic public sector liabilities, in conjunction with its lower levels of indebtedness, were positively reflected in spreads during the recent crisis, despite its deteriorating fiscal position.

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, a characteristic that includes the existence of secondary debt markets to 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 for an 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.

6 Anti-Cyclical Prudential Regulation and Supervision

One of the painful lessons that have 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.[20] Some of the largest costs have to do with the sharp reduction in the time horizon of firms experiencing difficulties. 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.

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

20 IMF (1998), Chapter 4. On the situation in Latin America, see also Rojas-Suárez and Weisbrod (1996) and CEPAL/ECLAC (2001a).

Also, the credit system is paralysed for long periods, thereby slowing the recovery of economic activity.

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 liberalisation in the midst of an external capital 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 liberalisation processes is and, in particular, how necessary it is to make such liberalisation contingent upon the prior establishment of appropriate prudential regulation and supervision and the design of satisfactory information systems to guarantee a proper microeconomic functioning of markets. Since the learning process – by financial intermediaries, depositors and the authorities – is not instantaneous, the liberalisation process needs to be gradual in order to guarantee that financial intermediaries have the time they need to learn how to manage higher risks, depositors how to use the new information channels, and the authorities how to supervise the system more strictly 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 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. Due to the greater financial volatility that characterises these countries, capital standards should probably be higher than those proposed by the Basel 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 hedging and related operations), to reduce imbalances in the maturities of assets and liabilities of financial intermediaries and the timely write-off of due loans.[21] 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

21 For an interesting analysis of the problems created by these mismatches and their effects during recent crises, see Perry and Lederman (1998).

liquidity for financial intermediaries, so that they can handle the mismatch between average maturities of assets and liabilities associated to the financial system's essential function of "transforming maturities" which generates risks associated to volatility in deposits and/or interest rates. This underscores the fact that liquidity and solvency problems among financial intermediaries are far more interrelated than traditionally assumed, particularly in the face of macroeconomic shocks. Reserve requirements, which are strictly an instrument of monetary policy, provide the liquidity in many countries, but their declining importance makes it necessary to find new tools. Moreover, their traditional structure is not geared to the specific objective of ensuring financial intermediaries' liquidity. The most important innovation on 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).[22] 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 time structure.

Properly regulated and supervised financial systems are structurally superior in terms of risk management, generating incentives for financial intermediaries to avoid assuming unmanageable risks during booms. Nonetheless, they are incapable of internalising all the collective risks assumed during such periods, which are essentially of a macroeconomic character and entail, therefore, coordination problems that exceed the possibilities of any one intermediary. Moreover, they have a pro-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 characterises such periods.

This is why instruments need to be designed that will introduce a counter-cyclical element into prudential regulation and supervision. First of all, 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 effective 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. Moreover, prudential regulation and supervision should be strengthened during periods of financial euphoria to

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

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. Within that of regulatory policy, additional prudential provisions or liquidity requirements, especially for short-term liabilities, can be established or raised. Ceilings on the reference price for financial and real estate assets that are to be used as collateral for loans could also be imposed (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). Deposit insurance may also be raised, and stricter standards for debt classification and write-offs could be adopted. Capital adequacy ratios should preferably focus on long-term solvency criteria, but could also be eventually raised during periods of financial euphoria.

During financial crises, although authorities must adopt clearly defined rules to restore confidence, the application of stronger standards should be gradual 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.

It must be emphasised 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 a rbitrage 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, as indicated, prudential regulation involves some non-price signals, and prudential supervision is full of information problems and is a discretionary activity susceptible to abuse, indicating that the faculties of the authorities must be subject to strict limits and controls.

7 Counter-Cyclical Fiscal Management

Regardless of what exchange rate and capital account regime countries choose, fiscal policy always provides a useful counter-cyclical device. The importance of countering excess spending during booms became quite clear in Latin America during the debt crisis of the 1980s when the over-expansion of externally financed public expenditure during the preceding boom generated, in almost all countries, fiscal imbalances that ultimately proved to be untenable. The painful lesson learned was that the lack of

fiscal discipline during booms is extremely costly. A greater degree of fiscal discipline was thus maintained throughout the 1990s.

Nonetheless, the return to a more orthodox policy stance has entailed the continued implementation of unmistakably pro-cyclical fiscal practices.[23] This is attributable to the tendency for public revenues to behave pro-cyclically. Under these conditions, setting fiscal targets independently of the business cycle implies that spending during booms is partly financed by temporary revenues. Given the inertia of current spending and pro-cyclical debt service patterns – a reflection of pro-cyclical interest and exchange rates – sharp fluctuations in public sector investment may be required, generating high costs and inefficiencies.

Other pro-cyclical rules are associated to explicit or implicit guarantees granted to the private sector. A case in question is the implicit guarantees of financial risks, which are reflected in the rescue packages for both domestic financial intermediaries and private firms with large external liabilities. A second case is public sector guarantees to private sector investments in infrastructure (such as minimum revenue or profit guarantees, or explicit coverage of exchange rate risks). 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 during these periods is underestimated; however, (c) disbursements (cash spending) are incurred during crises, increasing borrowing requirements and crowding out other public sector spending. They thus encourage pro-cyclical private and public sector spending in non-transparent ways.

It is, therefore, necessary for authorities to set fiscal targets in terms of some sort of definition of the structural budget deficit. This means, first of all, that countries need to design mechanisms to sterilise temporary fiscal revenues. The experience gained from the use of stabilisation funds for commodities with significant fiscal impact – the National Coffee Fund in Colombia (the first of its kind), the copper and petroleum stabilisation funds set up in Chile and, more recently, the petroleum stabilisation funds of Colombia and Venezuela – must be extended to broader fiscal stabilisation funds.

A well-designed social safety net to protect vulnerable groups during crises is another useful alternative, particularly if mixed with funds to finance them that are accumulated during booms. An essential advantage of social safety nets is that spending is intrinsically counter-cyclical.

In any case, in order to avoid unsustainable trends in the public sector

23 See CEPAL/ECLAC (1998b).

debt, a counter-cyclical management of public finances during booms is essential in order to manage crises. Setting annual target for the budget deficit without reference to the business cycle actually implies the existence of a narrow time horizon, a practice that reflects risk-aversion on the part of authorities. This is why the development of suitable institutions for broadening that horizon, such as fiscal stabilisation funds or properly designed social safety nets, is essential in order to preclude a return to practices seen in the past.

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

It should be emphasised, finally, that an anti-cyclical fiscal policy greatly facilitates a broad prudential regulation of booms. In particular, the counterpart of resources accumulated in fiscal stabilisation funds should be increased accumulation of 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.

8 Conclusions

Given existing asymmetries in the world economy, the volatility of capital flows generates strong pro-cyclical performance in "policy taking" developing countries. An essential part of the solution to this problem lies in strengthening the institutional framework to prevent and manage financial crises at the global level. This paper focuses, however, on the room for domestic anti-cyclical policies in the developing world, which is a necessary counterpart of such international architecture.

The basic claim of the paper is that adequate anti-cyclical policy packages can be adopted based on a mix that involves: (a) managed exchange rate flexibility *cum* capital account regulations, preferably reserve requirements or Tobin taxes on inflows that have a prudential character; a well-managed flexibility is a better alternative than the choice of polar regimes in order to deal with the conflicting demands that foreign exchange rate systems face today, whereas capital account regulations may be essential to guarantee some effective monetary autonomy; (b) strong "liability

policies", aimed at improving private and public sector debt profiles; prudential capital account regulations provide such an instrument in the case of private liabilities, but a mix of prudential regulations and explicit taxation of external liabilities may also do the job; (c) strong prudential regulation and supervision of domestic financial systems, with anti-cyclical instruments; and (d) counter-cyclical fiscal stabilisation funds and adequately-designed social safety nets.

All policies have, nonetheless, limited effects given the more reduced degree of freedom that developing country authorities face in globalised markets. Thus, pragmatic integrated 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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Comment on "Counter-Cyclical Policies in the Developing World," by José Antonio Ocampo

Liliana Rojas-Suárez

José Antonio's paper reminded us of the deeply pervasive characteristics of the boom-bust cycles in emerging markets and made a number of specific policy recommendations to deal with them. I want to focus my comments on José Antonio's proposals.

Basically, the policy proposals in the paper derive from fully recognising the extremely high level of economic and financial volatility prevailing in emerging markets. In this context, it is unthinkable that policymakers could decide on policies without taking into account the highly volatile nature of the environment. In other words, while policymakers cannot know *when* the economy will be hit by another shock, they know that the probability of a shock hitting the economy at any time is extremely high. A policymaker from an emerging market who is not prepared for such an eventuality is, simply put, not suitable for the job.

High levels of economic and financial volatility in emerging markets can be associated with two major characteristics of these economies. The first is the lack of continuous access to international capital markets and the second is the lack of developed domestic capital markets. These two constraints create a major policy puzzle: On the one hand, due to the lack of sufficient domestic capital, policymakers would like to see foreign capital flowing into the country. On the other hand, however, they also know that capital inflows can reverse very quickly at any time, creating large disturbances in the domestic economy.

With this analytical framework in mind, I would like to focus on the recommendations in the paper, which can be summarised as: (a) managed exchange rate flexibility, (b) strong liability policy, (c) anti-cyclical management of regulation and supervision, and (d) anti-cyclical fiscal policies. My comments will focus mostly on the issue of exchange rate regime and the issue of financial supervision, but I also want to make brief comments on the other two recommendations.

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Fiscal Policies

Regarding fiscal policies, I could not agree more with José Antonio's policy recommendation for anti-cyclical fiscal management. It is a policy that has been on the reform agenda for a long time, but has only been adopted by very few countries. Let me give you the example of a small country in Latin America: Peru. The country is currently facing a major political crisis, right after the shock from the international financial crisis. However, in spite of all these negative events, the forecasted recession in the country is not as large as most of its neighbouring countries and the crisis does not seem to be out of control. I believe that a major reason for minimising the negative effects of the shocks can be attributed to the policymakers' past decision to build a stabilisation fund with the resources from privatisation. While these resources are now almost depleted, the availability of a financial cushion greatly helped to minimise the recession.

In my own view of the world, I would go one step further and suggest that countries should not only build a fiscal stabilisation fund, but that the resources of the fund should be placed in a trust. Experience shows that very often these stabilisation funds do not work because they lack credibility. The fear is that at the first sign of political weakness the accumulated funds would be used for political, rather than economic, purposes. But if these resources were placed in a trust fund that delineates very clearly the conditions under which the accumulated resources could be used, the effectiveness of a stabilisation fund as a counter-cyclical tool would be greatly enhanced.

Liability Policies

With respect to the liability policies suggested in the paper, there is no question that a debt structure with emphasis on longer-term maturity is more adequate. However, I would like to make two comments to José Antonio's recommendations. First, the issue is not only to engage in longer-term maturity, but also to smooth the profile of amortisation payments, because of the uncertainty of adverse external shocks. Even if the debt was initially structured to have a long-term maturity, say 10 to 15 years, if the economy is hit by a shock at the same time that a large proportion of the debt matures, policymakers may find themselves facing severe difficulties in rolling over maturing debt. Thus, the smoothing of the profile of the amortisation payments is a definite must.

Also in this regard, an additional point that I want to stress is that policymakers should not ignore the behaviour of dividend payments associated with FDI during "bad" times. What very often happens is that in bad times

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foreign investors accelerate both, dividend payments and capital depreciation. As a result, these outflows actually add to the debt amortisation payments. Thus, while the advantages and long-term benefits of FDI should be recognised, it is also necessary to keep in mind that outflows associated with FDI could actually increase in periods of economic problems.

Exchange Rate Policies

Concerning the issue of exchange rates, I fully agree with José Antonio's remarks about the importance of country risk relative to exchange rate risk. Indeed, in my own research I have found strong evidence that the so-called "country risk" or "default risk" is a major factor determining domestic real interest rates. The evidence shows that "country risk" sets a floor to the country's ability to reduce real interest rates. Movements in the real interest rate determined by changes in expectation of exchange rate changes tend to be temporary. In contrast, measures of "country risk" and domestic real interest rates tend to converge in the long run.

This result has a key policy implication: since "country risk" seems to be more important than exchange rate risk in the determination of domestic real interest rates, the focus of the policy debate needs to be redirected from an excessive discussion on the "right" exchange rate regime to the design of policies aiming at improving the perception of creditworthiness by foreign investors. These policies usually are well beyond the issue of the exchange rate regime, and instead, tend to be concentrated on structural issues such as political stability, appropriate fiscal management, adequate regulatory and supervisory framework for financial institutions and appropriate legal and judicial systems.

Capital Controls

An issue where my views differ from those in the paper is the treatment of capital controls. While I agree with some form of controls on the inflows, there should never be controls on the outflows. There is a very simple reason for that: a control on the outflows is really an impediment to FDI because it is a constraint about the timing when foreign investors can repatriate profits or pay dividends abroad. I find that problematic. If I offer any support for controls, it is on the inflows and not on the outflows.

Now, when capital controls – even if just on the inflows – are combined with sterilised intervention, I have an even bigger problem. Over and over again, it has been demonstrated that sterilisation of capital inflows tends to aggravate rather than solve the problem of excessive inflows. The difficulties arise because in "good times", when inflows are entering the economy,

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governments seek to control (what is perceived as) an excessive appreciation of the exchange rate (if the exchange rate is not completely fixed) or an unsustainable expansion of domestic credit (in the case of more rigid pegs) through sterilisation procedures. Sterilisation, however, keeps domestic interest rates high, which promotes more capital inflows. This, in turn, means that the policymakers would have to tighten capital controls. Thus, policymakers may find themselves trapped into a vicious circle of higher interest rates and tighter controls which becomes very difficult to manage. Indeed, the evidence has repeatedly shown that this policy regime has not been possible to maintain on a sustained basis.

Inflation Targeting

In my view, the exchange rate regime that works best for Latin America is one where flexibility is the general rule, but intervention through increases in domestic interest rates is allowed if expectations of large exchange rate depreciations have a negative impact on expectations of inflation. In other words, I am among those who believe that, among the alternatives, inflation targeting is a good idea for the region. Why? First of all because I strongly believe that, facing severe and sudden reduction in access to international capital markets, it is not a good idea for a Latin American country to pre-announce a level or even a band for its exchange rate. In the highly volatile environment faced by Latin America, an exchange rate that seems perfectly consistent and sustainable at one point in time may turn out to be perceived as unsustainable if there is a reversal of creditworthiness perceptions about the country. Thus, from my perspective, any pre-announced path for the exchange rate is a call for future problems. Based on my own personal experience working in Wall Street, I know that markets will speculate against a fixed or targeted exchange rate regime at the first sign of trouble.

Inflation targeting allows policymakers to determine a rule regarding intervention in the exchange rate markets. The rule can be very simple and transparent: the exchange rate will be allowed to float unless there are clear signals that a given path of exchange rate depreciation is preventing the central bank from achieving its targeted and announced inflation rate. This, of course, implies the existence of an important "pass-through" from exchange rate depreciations to the inflation rate. Indeed, a number of empirical analyses have shown that the extent of pass-through varies significantly across Latin American countries, with Mexico showing the highest rate of pass-through. While, due to the history of extremely high rates of inflation, the pass-through coefficients tend to be much higher in Latin American countries than in industrial countries, the evidence also seems to

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show that these coefficients have been declining over time, as inflation rates have remained low on a sustained basis. A clear inflation-targeting rule would predict that exchange rate intervention would tend to decrease over time as the pass-through factor also declines.

Mexico is a good example of a country following a full-fledged inflation-targeting scheme, which, at times, has called for increasing domestic interest rates to achieve the announced inflation target. Indeed, recently, the authorities have been criticised for keeping a policy of high interest rates at a time when the signs of a severe slowdown (or even a recession) in the US economic activity are mounting. In the view of a number of analysts, the high level of correlation of economic activity between the US and Mexico calls for an easing of monetary policy. However, the slowdown in US economic activity is expected to bring about a deterioration in Mexico's trade balance and significant pressures on the exchange rate, which from the perspective of the Central Bank of Mexico may risk the achievement of the pre-announced inflation target of 6.5 percent by the end of 2001. Thus, the continuation of a tight monetary policy in Mexico is a clear reflection of the priority given by the Central Bank to keep inflation in line rather than use monetary policy to re-activate the economy.

The Quality of Credit

I will now move to the issue of supervision and regulation. I firmly believe that, while avoiding an unsustainable expansion of credit is essential, the most important challenge for policymakers is to control the "quality" of credit. Let me give you an example to explain my statement. One of the most important reasons why an outflow of capital creates a problem is because companies are indebted in foreign currency whereas the revenues they generate are in domestic currency. The problem, therefore, is a currency mismatch between assets and liabilities, that is allowed to expand, not just in the balance sheets of creditors (banks), because that is easier to regulate, but in the balance sheets of debtors (corporations). Therefore, if corporations had an incentive to hedge against their exposure to foreign currencies, policymakers would be less concerned about the consequences of a possible reversal of capital outflows. However, because of the lack of development of domestic capital markets, hedging instruments are not easily available to many domestic firms.

This situation then begs the question: what should the right focus of policy be: (a) should policymakers restrict credit expansion in foreign currency to all sectors because of the non-existence of hedging instruments? or, (b) should credit be allowed more freely to those sectors where hedging is available (like the export sector)? or, (c) should policymakers focus on

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the development of capital markets and the availability of hedging instruments?

I believe that, while not simple at all, the answer lies more towards (b) and (c) than towards (a). In other words, policies that tend to limit the overall expansion of credit (say, through the use of monetary instruments) are less useful than those that allow the expansion of credit towards the least risky sectors (say, through regulation and supervision). And here, José Antonio remarks provide some insights. When José Antonio tells us that a depreciation of the exchange rate is going to affect the non-tradable sector more adversely than the tradable sector, he is also telling us is that the tradable and non-tradable sectors of the economy do not face the same risks. Since José Antonio fully recognises that, given the high volatility in emerging markets, the probability of changes in the real exchange rate is very high, shouldn't he also question why bank loans to the tradable sector are treated (from a regulatory point of view) in the same way as bank loans to the non-tradable sector?

Adequate Regulation in Emerging Markets

From my point of view, a serious problem in the area of bank regulation and supervision is the way in which emerging markets are implementing the recommendations put forward by the Basel Committee. As we all know, those recommendations were designed taking into consideration the characteristics of industrial countries. However, emerging markets have particular features such as the lack of access to international capital markets, the lack of developed domestic capital markets, and the high pass-through between exchange rate changes and inflation. These specific issues do matter for the appropriate design of regulatory and supervisory rules in the financial sector of emerging markets, but are not at all contemplated in the design of the Basel recommendations.

If you are a policymaker facing all the constraints intrinsic to emerging markets, why should you follow the Basel recommendations at face value? Facing more uncertainties, shouldn't you keep a more cautious attitude toward risk? Shouldn't you then require banks to have larger amount of capital and/or tighter provisioning rules when holding liabilities issued by the riskier sectors? Now, what sectors are riskier? We have already argued that the non-tradable sector tends to be riskier than the tradable sector in emerging markets, but that is not the end of the story. Take, for example, the distinction between private versus public sector assets. In the Basel recommendations regarding risk-weighted capital-to-asset ratios the amount of capital that a domestic bank in any country needs to hold is much lower if the bank holds an asset issued by the government than if it is

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issued by the private sector. This is the case because, under the prevailing Basel capital adequacy requirements, government paper carries much lower risk weight (zero, actually) than private sector notes. This is very understandable in, say, the United States where Treasury bills can be considered a "safe" asset, but this is certainly not the case in emerging markets, where a number of examples of default on government paper can be named. Moreover, the strict application of the capital-adequacy requirements can explain a current feature of the financial sectors in many emerging markets: namely, that a large proportion of assets held by banks are government, rather than private paper.

Moreover, in a recent empirical study aiming at identifying early warning indicators of banking problems in a number of countries that had experienced severe banking crisis, I reached a strong conclusion: Supervisory ratios work as early warning signals of banking problems only if there is a market to validate them.[1] Not surprisingly, the risk-weighted capital-to-asset ratio did not provide adequate signals of bank problems in recent banking crises since emerging markets lack well-developed domestic capital markets.

In the United States, the traditional supervisory ratios, such as capital requirements, do a good service to bank supervisors because there is a well-developed capital market. In that country, the supervisory tools and the market work together, they reinforce each other. In emerging markets, that is not the case at all. Now, this does not mean that supervisors in emerging markets cannot have an adequate early warning system. Of course they can. The trick is to identify financial markets that work and then base the supervisory tools on the signals provided by these markets. What financial markets work in emerging markets? The deposit market is a major one and, as such, the behaviour of the deposit rate usually provides useful signals about the degree of risk-taking activities of individual banks. In many countries, the inter-bank market also works appropriately. As my paper on early warning indicators shows, at time of crisis, these markets were able to provide "good" indicators of problems to come. The basic message is that if banks' attitude toward risk were assessed by indicators based on markets signals, rather than by those implemented in industrial countries, supervisors would be able to show a much better track record in forecasting banking problems than the record actually held.

To conclude, my main point is that while we all recognise the specific features that distinguish emerging markets from industrial countries, the policy prescriptions are not always in line with the recognition of existing

1 See, Rojas-Suárez, Liliana (2001), "Rating Banks in Emerging Markets: What Rating Agencies Should Know About Financial Ratios", manuscript.

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constraints. What works in the industrialised part of the world may not be effective in emerging markets. The good news is that, as a paper like that of José Antonio shows, adequate policy recommendations can be designed. Among my comments, I have provided an example of how appropriate early warning signals can be constructed to serve as adequate tools for effective supervision in emerging markets.

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Comment on "Counter-Cyclical Policies in the Developing World," by José Antonio Ocampo

Amar Bhattacharya

The basic premise of José Antonio's paper is that capital flows to developing countries tend to be pro-cyclical, leading to an increased propensity for boom-bust cycles. I agree with this premise and I also agree with José Antonio that you need an eclectic response. You should respond in various ways, considering, as Liliana said, elements that reinforce one another and are specific to country circumstances. I will begin by elaborating a little bit on the framework that is in the paper and add a few elements that are implicit in talking about the boom-bust cycle.

One way to talk about capital flows to developing countries is pro-cyclicality. The other way is to talk about the amplification effect of financial integration in terms of inherent boom-bust cycles. Any financial system amplifies boom-bust cycles, and a financial system of a developing country that is integrating with the world economy amplifies these cycles even more. This seems inevitable because a developing country's financial system is subject to all of the institutional weaknesses and informational asymmetries that we know so well. This creates a number of problems.

Responding to Vulnerabilities

The first problem I see is that the initial stages of financial integration lead to a large and quick build-up of vulnerability. That is the basic point José Antonio makes in his paper. But there are three other problems that flow from it:

Firstly, the same nature of international lending that leads to the amplification of boom-bust cycles, also leads to a very rapid withdrawal of capital, which pulls the rug out from under you all of a sudden. Secondly, the effects of this rapid withdrawal of private capital flows are especially acute in terms of interest and exchange rate shocks. Thirdly, these macroeconomic shocks also have disproportionate effects on the balance sheets of financial entities and corporations. Hence, you get the vicious cycle that is laid out in the paper, which may be worth stressing.

I agree very much with the responses José Antonio suggests. Of course,

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first-best answers that offer first-best policies tell developing countries that they need to do more to strengthen the institutional infrastructure and to increase the depth of the basic markets, so that they become less prone to crisis. But, recognising that this takes time, I agree very much with the package that is laid out in the paper. I would group it into two sorts of objectives. The first objective is how to pursue counter-cyclical macroeconomic policies, so as to dampen the aggregate demand effects, but also to mute the capital flows themselves. The second objective is how to manage the balance sheet risks associated with capital inflows. Those are the two overarching objectives. I will speak to each of them individually by using the framework presented in José Antonio's paper.

The key to counter-cyclical macroeconomic policies is the exchange rate regime. In my view, and agreeing with José Antonio and John Williamson, the paper appropriately argues that neither poles – pure float nor absolute fix – provide a panacea in terms of avoiding vulnerability. A very important point made in the paper is that exchange rate appreciation and interest rate swings add to the pro-cyclical impact of capital flows. I think that too much has been made out of the East Asian pegs. In many ways, the East Asian exchange rate management was quite successful in avoiding real exchange rate appreciation, but perhaps by doing this it had some incentive effects that were problematic.

I also agree very much that in order to deal with the capital inflow problem, you need an additional instrument, beyond exchange rate policy. Capital account regulation is part of the answer, but it is important to stress that it need not just be the Chilean or the Colombian form of capital account regulation. The prudential regulations and the liability management that José Antonio spoke of are very much part of the same arsenal; they are part of the same capital account regulation he is talking about.

Before I come to balance sheet vulnerability, let me stress, as Liliana also did, the importance of fiscal policy, rather than simply rely on sterilisation and stable exchange rate policy which have all these adverse incentive effects. Unfortunately, we still do not have good answers for making fiscal policy more anti-cyclical in developing countries. After all, you don't want to cut education and social expenditures, and it is very difficult to make the revenue side more anti-cyclical. So the question is: what kinds of instruments can be developed in developing countries to make fiscal policy more anti-cyclical?

Turning to the second objective, addressing balance sheet vulnerability, there has been a lot of attention to short-term unhedged borrowing. However, it is important to recognise that there are other sources of vulnerability, maturity mismatches for example, and risks of asset price inflation. So there are many sources of vulnerability in developing

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countries. A second, important point to recognise, is that channels of this vulnerability can take two or three forms. They can be through the public sector, as we were discussing before. They can also increasingly be through the private sector, where it is important to distinguish between the banking system and the corporations. Hence, an important principle is the need to take a national balance sheet approach to the concept of vulnerability – both the evaluation of it and the management of it.

Incentive-Compatible Regulation and Supervision

In that context of balance sheet vulnerability, I think it is absolutely appropriate to put much more emphasis on prudential regulation and supervision, in an incentive-compatible way. Let me explain what I mean by that. Although it is important to apply prudential regulation and supervision in a counter-cyclical way, the reality is that it has worked precisely the other way around. In East Asia, for example, prudential regulation and supervision was lax in the boom period and it was tightened in the crisis, triggering just the opposite effect of what you wanted. The crisis is the worst time to tighten prudential regulation, and capital adequacy in particular. So that is not what we mean by the anti-cyclicality of prudential regulation.

What we mean is that risk-weighted capital adequacy requirements should be anti-cyclical. That implies that in boom times you must take into account the higher risks of lending to real estate, to margin lending, to consumer lending and to things related to asset prices. It is through risk-weighted capital adequacy that you make prudential regulation more anti-cyclical, as has been laid out very well in José Antonio's paper.

It is also worth considering speed limits, and here I disagree a little bit with Liliana. Because every crisis in the banking system has been preceded by an acceleration of credit, you not only have to worry about the *quality* of credit but also about the *rate of expansion* of credit. Whether you put in automatic circuit breakers, speed stabilisers, or something more sophisticated is worth debating, but I do think the regulation of credit is important. All of this, obviously, should be done in an incentive-compatible framework. This means that much more attention should be paid to implicit and explicit insurance, which is already far too great in developing countries. It also means that deposit insurance schemes must be designed more appropriately. If you don't have the appropriate framework for deposit insurance, not having a deposit insurance scheme is better than having one. And it means putting more emphasis on subordinated debt. These are, in my view, the crucial incentive-compatibility issues.

However, prudential regulation and supervision are not in themselves

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sufficient, because you can have vulnerability building up through other mechanisms as well.

The corporate sector also needs much more attention. José Antonio talked about a favourite topic of mine, tax deductibility, which I have preached a lot but which has not yet been adopted as much as it could be. It is worth thinking about whether you should be trying to use market-based mechanisms, such as ratings of firms, as criteria for borrowing, to limit the eligibility of firms. Registering of borrowing and derivatives could be encouraged, e.g. by saying that only transactions that have been registered will be considered "legitimate" in terms of settlements in times of crisis. This would create incentives for disclosure.

Much more importance needs also to be given to the role of bankruptcy, which prevents small problems from becoming big ones and private sector problems from becoming public sector ones. Again, in this context, I agree very much with José Antonio about the problem of the public sector guarantees for private sector investments in infrastructure and the issue of contingent liabilities. In addition to Latin America, Malaysia is a good example where the whole story of contingent liabilities and infrastructure lending was a very important pro-cyclical feature. He might want to add Malaysia as a case example.

Social Safety Nets

I would not consider the issue of social safety nets as a balance sheet risk, but rather as a separate pillar in terms of better crisis management and response. While I agree with José Antonio on their importance, I think social safety nets are inherently more difficult in developing countries because of the lesser role of the formal sector, information market problems and institutional mechanisms. In terms of response, the lesson of the Asian crisis tells us that there are three aspects of social safety nets that are important.

First, there is the importance of being able to use aggregate fiscal policy in a counter-cyclical way. Second, there is the need to focus on expenditure multipliers of fiscal policy. All expenditures don't have the same multipliers in terms of social impact. Third, it is important to put social safety nets in place during good times so that they can be expanded in bad times. The "progresa" scheme of Mexico is a good example of that.

Managing the Bust

Finally, the paper focuses very much on counter-cyclical policies in managing the *boom*. However, it is worth thinking about some of the issues that

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arise in terms of managing the *bust*. Let me just put some on the table.

First of all, what about counter-cyclical fiscal policy in terms of managing the bust? Before the crisis, Assaf Razin wrote a seminal piece on counter-cyclical management. In my view, the IMF and World Bank should be seen as part of counter-cyclical funding mechanisms. That is an important issue.

Second, under what circumstances does it make sense to have restrictions on capital outflows, not as a permanent feature, but as a transitory means? It is premature to throw out the Malaysian experience as irrelevant, because it is highly relevant and it is worth considering in what circumstances it works. People often say that you need to consider the trade-off between exchange rates and interest rates in times of crisis. Unfortunately, developing countries often have no choice of trade-off. They are faced with a kind of Pandora's box, exchange rate and interest rate problems coming at the same time, and they need an additional instrument. So the question is: would Indonesia, for example, have been better served by a restriction on capital outflows? Would this instrument have created more leverage and confidence?

Finally, regarding the banking system, under what circumstances is it appropriate to extend a blanket guarantee? What are the issues that arise with regard to the lender of last resort and is it really futile in crises? What lessons can we learn from the financial restructuring resulting from the recent wave of crises and how can we deal with the credit crunch problem associated with it? These issues may be the topic for another paper.

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Floor Discussion of "Policy Options for Developing Countries to Counter Boom-Bust Cycles"

Problems of Prudential Regulation

Rogério Studart agreed with most of the policies proposed in Ocampo's paper, but was puzzled with the proposal that capital adequacy standards in developing countries should be higher than the minimum requirement of 8 percent. He believed this might discourage economic growth.

"Most developing countries have bank-based systems, in which the demand for loans naturally increases when the economies grow. If we try to impose capital standards that are higher than the 8 percent agreed by the Basel Committee, we may be safe but the economy will not grow. As José Maria said, 'we will be very safe at home and not catch a cold, but we will not have a life and go out of the house.' I do not have an answer as to how to maintain a solid banking system that, at the same time, is functional for economic growth, but it is certainly not by maintaining even stricter capital standards than those set by the Basel Committee."

Jan Kregel brought up the same point from a historical perspective. "The use of risk-weighted capital adequacy requirements as a counter-cyclical tool was first proposed by Henry Kaufman at a time when the US was undergoing very rapid inflation. The central bank was attempting to reign in inflation by monetary controls. When it discovered that this had absolutely no impact on bank lending, Kaufman suggested putting a brake on their capital. The logic behind his proposal was that, as the banks continued to lend to more and more risky projects, they would have to borrow in the market at increasingly higher interest rates to replenish their capital. This would create a market-based incentive for banks to cut back their lending because the cost of increasing capital would be rising until there would be a cut-off point at which it would not be profitable to increase lending.

The measure was eventually extended to the operation of Japanese banks competing with US banks in more or less the same period. At this time, in terms of US standards, Japanese bank capitalisations were in the range of one to three percent. US banks were complaining that this was uncompetitive and that capital standards should be extended on an international basis to increase the costs of Japanese banks operating abroad and

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reduce their competitiveness, particularly in the Euromarkets operating in London.

The interesting thing about both of these measures is that, first, the introduction of capital requirements did not have the impact on lending by US banks that was expected. Second, it also did not have the expected impact on Japanese banks for a very simple reason. After the controls were introduced, the Japanese banks first managed to get an exemption for appreciation of securities that they held in their investment portfolios. Then, just after they were introduced, the Tokyo stock market went into a tremendous boom and the cost of capital went down to zero. As a result, the Japanese banks were able to refinance themselves at extremely low interest rates, again creating a competitive disadvantage for US banks.

So the experience of trying to set counter-cyclical incentives is extremely dubious. If the regulators push up the capital adequacy requirement from 10 to 14 percent for micro anti-cyclical reasons, the domestic banks will complain that this gives a competitive advantage to foreign banks. And it is going to be extremely difficult to impose it without doing damage to the domestic banking system."

José Maria Fanelli observed that such damage was done to the Argentine banking system after the Mexico crisis, when in 1995-96 the authorities increased the capital adequacy requirement from 8 to 11.5 percent. "Moreover, this anti-cyclical policy became, in fact, pro-cyclical, and in a very perverse way. Because domestic banks did not have the required reserves to comply with the new regulation, they had to capitalise or to sell against low prices, thus creating an opportunity for foreign banks to buy domestic banks at a low price. This resulted in capital inflows that Argentina did not need because in 1997-1998 the economy was already growing at eight percent. So the policy that should have been anti-cyclical was in fact pro-cyclical.

What happened at the micro level? Small banks just disappeared and with them the financial sector lost knowledge on lending to small and medium enterprises. Bigger banks were not interested in giving credit to small enterprises and concentrated on mortgage lending, which was new in Argentina; it was the cream of the market and very easy to invest in. Instead of investing in innovation in small enterprises, they invested in real estate. Once again, it went against the making of anti-cyclical policy."

Chi-Young Song confirmed that stricter prudential regulations could be quite pro-cyclical, as the recent Korean experience illustrates. "In 2000, the government enforced a prudential regulation even though the economy started to decline. Korean commercial banks were required to meet a capital adequacy ratio of 10 percent by the end of the year in order to receive government funding. The commercial banks were in trouble so

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they needed some kind of free funds from the government. What did they do as a result of the stricter regulation? They held their money in the bank even though they had a lot of liquidity, thus accelerating the recession of the Korean economy."

Manuel Montes raised the question of whether the private sector would understand if, during the boom phase, a government would attempt to limit lending by speed limits on credit expansion. "Having lived in Singapore during the Asian crisis, the problem I see is whether the private sector understands these kinds of policies. During the boom, the Indonesian authorities tried to limit the proportion of outstanding loans for real estate but they were not successful. Would the private sector really understand the policies that you should carry out during the boom? Indonesia was criticised for a long time for having annual credit ceilings on a sectoral basis because they were dampening economic growth. How do you set a speed limit that the private sector can understand?"

Stephany Griffith-Jones agreed that, in practice, counter-cyclical policy is difficult because when things are going well, it is hard to convince people that there are risks. "The problem is that the private sector is powerful and may pressure the authorities not to move in a counter-cyclical way. In addition, governments are under pressure because of elections and so on. How can one sell these counter-cyclical policies, particularly in times of a boom?"

Griffith-Jones warned that the proposed new Basel Capital Accord even has an increased pro-cyclical bias because it would rely increasingly on the internal risk management systems of the bank themselves.[1] "In the Basel documents they say that this bias does not matter because the new proposal has so many advantages, and the pro-cyclical effect is just the cost we have to pay. In my view, this really is a serious mistake. It could have a very harmful impact on capital flows to developing countries by making them even more pro-cyclical, which is exactly the opposite of what we want."

Reporting on a conversation with France's central bank Governor Trichet, John Williamson observed that a cyclical variation in capital adequacy regulations might not be a good tool. "I asked the Bank of France Governor Jean-Claude Trichet what he thought about cyclical variation in capital adequacy regulations. He reacted with horror and said that it would be absolutely disastrous from the standpoint of the psychology of the banks. If you would tell a bank that there are big troubles so their capital adequacy ratio will be reduced, everyone would get scared stiff. He said much the same thing could probably be accomplished by instituting forward-looking provisioning. In other words, in the boom you make banks

1 See the second chapter in Part IV of this volume where Stephany Griffith-Jones and Stephen Spratt discuss the implications of the new Basel Capital Accord.

provision at a higher rate because you know some loans will turn bad when the bust comes.

However, as Stephany said, it is difficult to persuade people in the middle of a boom that the good times are not here to stay. Some rules of thumb have to be designed which could be applied more or less automatically so central bankers do not have the option of changing their mind when the crunch comes. One would have to argue a strong case if one wants to abandon the guidelines just because of certain exogenous events."

On the issue of discretion versus automaticity Roy Culpeper remarked: "We seem to have lost a sense of automaticity from our macroeconomic toolkit in the last generation. The whole system has sunk into a cesspool of discretion, which has tended to discredit the very aims of counter-cyclical policy. If we can go back to a more automatic system with automatic stabilisers and automatic taxes it might also be easier to sell it to the private sector as part of a public good. These taxes go up in good times in order to set aside money for the bad times. The problem is that in good times there is always an opportunity cost of putting aside trust funds whilst hoping that the growth cycle will continue ad infinitum, which we all know it will not. In order to rehabilitate fiscal policy, it is important to reintroduce some kind of automaticity into the system."

Manuel Marfán stressed that when you have an open capital account, prudential regulations of the banking system are only a substitute for monetary policy and have more or less the same effect as monetary policy in increasing vulnerability. "Again, Chile offers an example. Since the mid-1980s, we have had a tough banking regulation system and a very reliable assessment programme. The parliament passed a law in 1996 that almost completely adopted the Basel Committee's recommendations and even went beyond that. The banks performed relatively well during the recession of 1999-2000 according to the non-performing loans share of total assets. However, the problem was that since domestic credit was more expensive than foreign credit, especially long-term credit, the main Chilean firms started issuing long-term bonds abroad for their funding and stopped asking for loans in the domestic market. They went abroad. The banks saw this as some sort of de-intermediation and initiated a policy of lending very heavily to small businesses, mortgage loans etc. That type of attitude provoked a crowding-in of credit in large parts of the economy that did not have enough access to credit before. That is something good if it is sustained in the long run. The problem appeared when the costs of external credit increased in 1998-1999 and the main Chilean firms came back to ask for credit in the domestic market. This crowded out small businesses, mortgage loans etcetera and created a credit crunch for small businesses, a problem we are still facing today in Chile."

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Zdeněk Drábek questioned the logic of using prudential regulation for counter-cyclical purposes. "I thought the prudential regulations were in place in order to deal with the health of the financial sector. If we introduce the dealing with booms and busts as an additional objective, there will be a lot of opposition. The rules should be transparent and predictable. The worst thing that could happen is that we change the rule in a discretionary manner when we think we have a bust. Another critical issue in prudential regulation is what the rules do to competition in the market. In the Czech case, for example, when small banks were allowed very generously into the market, as newcomers they had to compete for their deposits by offering higher deposit rates. Since they were paying more on deposits, they had to make sure that they were lending for projects that were bringing in higher returns on the lending side, which often meant highly speculative projects. Not surprisingly, most of these small banks are gone by now. I wouldn't encourage it, but if you really want prudential rules to target booms and busts, you need to consider these effects."

Regarding the counter-cyclical use of capital requirement ratios Liliana Rojas-Suárez stressed that the problem is not the quantity of capital, but the quality. "How much do you want to punish or press banks in terms of their profitability by raising capital requirement ratios? After all, if you penalise them too much they are not going to lend, and if they do not lend there will not be growth. The problem is not the quantity of capital but the quality. It is not the amount of capital, but the risks involved, that have to be assessed. If banks would have higher reserve requirements in relation to their risks, they would be more prepared to avoid the crisis. In the end, prudential regulation is about avoiding the eruption of a crisis that is going to cost a lot in terms of the national product. In my view, the best counter-cyclical policies are those that prevent the costly disturbances in the financial sector. Experience shows that it is that what costs the most. The Chilean banking crisis of 1981-82 is the best example with costs of at least 20 percent of GDP. If you know that a crisis is going to cost so much, I would really put all my resources into trying to avoid it."

Rogério Studart argued that prudential regulation is not really addressing the causes of crises. "Are crises created because there was not enough prudential regulation, or are they created because the prices that affect the domestic foundations of the financial systems have been so volatile? Most financial crises in developing countries are caused in a process of widening interest rate differentials, exchange rate volatility and a recession, which affect the cash flows of the debtors. The source of the crisis lies in the volatility of interest and exchange rates and the volatility of cash flows of firms and consumers that have to repay their debts. That is why I agree with José Antonio that we need to create stability of prices that are

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important for the micro-foundational stability of developing countries.

One of the problems in developing countries is that we have bank-based systems that are very vulnerable to changes in interest rates and cash flows resulting from a recession. That combination typically creates a financial crisis. To avoid financial crises, there should be no abrupt changes in interest or exchange rates. This is needed even more than prudential regulation of the banks and financial systems."

Stephany Griffith-Jones stressed that the key issue is the interaction between the micro and the macro side. "It is not either the financial sector or the macroeconomic developments, but the interactions between both. One reason why financial regulation is more important now is that the traditional policies, such as regulating the level of credit through reserve requirements, are no longer used. Therefore, financial regulation becomes one of the key ways of transmitting macroeconomic policies in these very open economies."

Curbing Capital Inflows

John Williamson raised the question of whether there would be a better way to control capital inflows than through the Chilean tax on short-term inflows, of which he declared himself to be a sympathiser.

"Maybe essentially the same thing could be done through the fiscal system instead of the monetary system. In IMF staff papers, I have read a proposal to impose a tax on all foreign exchange inflows, a general one, which can be rebated on other taxes. Through the VAT system you rebate it on exports of goods and services, and through the import tax system you rebate it on income transfers.

Inflows of financial capital are paying the tax, which is more or less equivalent to what Chile had. The one difference is that it does not discriminate by maturity. If someone goes in and then exits again one month later, it discriminates against them. But if somebody goes into a one-month paper and then rolls it over every month for five years he pays the same tax as somebody who goes into five-year paper. That is the only disadvantage I can think of. This would be much easier to administer and more difficult to evade."

Manuel Marfán, who participated as a deputy minister of finance throughout most of the 1990s in the design, operation and evaluation of the Chilean tax on capital inflows, said that the instrument worked relatively well from its creation in 1991 until the "Tequila" crisis of 1994-95. "It prevented us from suffering during the Mexican crisis, although, to be honest, we also benefited from a windfall gain in terms of trade that year. From then on, the device became easier to avoid through different

mechanisms and the central bank was no longer convinced that it was very effective. We promoted Chilean investment abroad as an additional solution to the problem of excess financing. Chile became a very important capital exporter within the region, especially in neighbouring countries. The problem is that when foreign investment starts making arbitrage, it is never taxed because you can only tax capital inflows, not capital outflows of domestic agents, nor capital repatriations from abroad. The most important case was the case of the Chilean pension funds. They have been doing a lot of arbitrage which introduced a lot of macroeconomic damage. There was no instrument to tackle that problem.

The main goal of these taxes on capital flows should be to regain a degree of freedom for sovereign monetary policies. You should be able to move the tax rate in a way concomitant to your monetary policies. So if you tighten monetary policy, you simultaneously raise the tax, because in order to reduce domestic expenditures you need to raise the cost of both domestic and external credit. And the other way around is: if you loosen your monetary policy, you loosen the tax. If you have a legislated type of tax, you need to pass new legislation in order to move the rate. Who makes the decision to move the rate? Is it the central bank – it should be – or is it the treasury? In that sense, there is the problem of design; the tax rate should be an instrument of macroeconomic policy and not a rate that is independent of the moment of the cycle you are in."

John Williamson suggested that one could certainly make the tax flexible. "During the Keynesian era, there was a law that allowed the UK chancellor to move a purchase tax, the then equivalent to the value-added tax, by a certain amount without having to go through the budget. I am unsure if it was ever exercised but it was legislated to allow the treasury and not the central bank to do that. In the old days, there used to be telephones between treasuries and central banks so they could actually coordinate with one another. That is a bit out of fashion now. But you never know, these things go in cycles."

Reply by José Antonio Ocampo

"To clarify, my fiscal mechanism is really in the form of a general trust fund, with legal rules on how to use these funds.

I do not like pre-announcing exchange rates. The problem with the foreign exchange rate band in Colombia was that exchange rates were pre-announced for the first time since the crawling peg was introduced in 1967. Although it worked for some time, it turned out to be a problem later on. There is, indeed, widespread experience in Latin America in this regard.

A tax on capital inflows, prudential capital account regulations or reserve requirement for capital inflows (*encaje*) or any other similar instrument is one of the best instruments discovered so far. It obviously has problems (elusion, evasion, etc). It operates as a tax that is put in place during a boom, with a mechanism attached that sterilises the corresponding fiscal revenues.

Obviously, an explicit tax is a good alternative, but it would be a very strange sort of tax. Taxes require long congressional debates and it is difficult to get approval for a flexible application of the rates. In most countries, constitutional amendments would be required to allow the government to change tax rates, which in democratic systems is a prerogative of Congress. Brazil has a peculiar constitutional system offering the government the constitutional possibility of changing tax rates on financial transactions. Since the Chilean-Colombian *encaje* is not legally a tax, the flexibility is determined by the fact that it is a foreign exchange policy instrument that can be managed in a flexible way by the central bank. It is indeed equivalent to a tax, the rate of which can be changed by the central bank.

In addition, such a tax mechanism has two further advantages. First, it meets the first-best policy test if excess capital inflows are the source of the disturbance the economy is experiencing. The second advantage is that such a tax may give room for a somewhat more contractionary monetary policy. My argument is that, in developing countries, monetary autonomy is not guaranteed by any exchange rate regime, as monetary policy may be forced to target the exchange rate to avoid inflationary effects or excessive appreciation, depending on the phase of the business cycle. Prudential capital account regulations offer at least one possibility of increasing monetary autonomy.

Although the evidence is very partial, I tried to find episodes in which interest rates were not dominated by external forces in large and middle-sized Latin American countries. I have found that the two countries that have more episodes of this type are precisely Chile and Colombia. After large devaluations, there are frequent periods when interest rate policy can be managed with some autonomy by the authorities under any system of exchange rate flexibility. This has been the experience of many Latin American countries in recent years. However, Chile and Colombia are the only cases in which you find some monetary autonomy during booms. In the other countries interest rates tend to fall during booms. On the other hand, research done at the central banks of Chile and Colombia indicate that the *encaje* does have effects on capital inflows, interest rates or both.

Anti-cyclical prudential regulations have been subject to several comments in the discussion. In response to Chi-Young, I would like to stress

that I am not talking about imposing strict banking standards after a domestic financial crisis. This would be a very pro-cyclical policy that can worsen short-term conditions even if it has good long-term effects. I am talking about how some instruments should be used in an anti-cyclical fashion once an appropriate prudential system is in place. One of the most powerful instruments would be a combination of liquidity requirements with preventive provisioning for delinquent loans. However, I do not agree with Liliana's statement that quality and quantity can be separated, because the quality of lending of a domestic financial intermediary tends to deteriorate when it grows too fast."

Liliana Rojas-Suárez: "I would not disagree with that..."

José Antonio Ocampo: "My strongest argument is that the rapid growth of domestic lending is generally associated with riskier investments and riskier lending that will become evident later on. Prudential regulation is certainly a mechanism to guarantee the quality of lending. But the peculiarity of this is the time in which financial intermediaries incur in riskier lending, which is during booms, not during busts. It becomes known too late, only during the busts, that they made bad decisions. That is why, based on the quality of lending, it makes sense to have some mechanisms that would make evident to financial intermediaries during booms that they are incurring in risky strategies. Since this has not been tried, it remains a question whether it would be effective. However, I want to emphasise the possibility of using prudential liquidity requirements as a sort of preventive provisioning.

Concerning the debate over automatic versus discretionary policies, I prefer automatic and transparent rules. However, my experience in policy-making is that some discretionary powers are necessary, because it is quite difficult to know in advance what specific situations you are likely to face. You have to have the possibility of doing something when you face unexpected events, which are common. Several years ago, there was a very interesting Inter-American Development Bank project on commodity stabilisation funds, full of econometrics and very interesting rules on how to manage them. Since I had worked in coffee in Colombia, which at the time had the only commodity stabilisation fund in Latin America, in my comments to the project I said something very simple I had learned in practice: I do not know of any model in the world that can predict coffee prices. In the late 1980s, the best model of the coffee economy was thought to be that of the World Bank, which predicted that the breakdown of the international coffee agreement would bring down prices by about 40 percent, but that they would recover within a year. However, prices actually fell by 60 percent and did not recover for four to five years. Since you really do not know and cannot know in advance what is going to happen,

you have to have discretion. It is very difficult to work with fully automatic rules. You must apply to them the old criticism against planning: it assumes that people know in advance what they do not know."

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