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Abstract. The economic and social performance of many developing economies during the last decades has been disappointing, diverging with respect to developed economies. In our view, one main cause of the poor performance of several EEs relies heavily on the shortcomings with respect to a comprehensive approach to macroeconomics. Indeed, the approach in fashion emphasizes macroeconomic balances of two pillars (low inflation and fiscal balances), neglecting the importance of real macroeconomic balances. We emphasize that real balances, defined as the consistency between the productive capacity and its utilization, are crucial determinants of capital formation, permanent productivity gains and, therefore, of economic growth. Also, we highlight that volatile international capital markets are behind both real and financial instability in EEs. National authorities have lost several degrees of freedom as a result of liberalizing reforms in the last decades, which has exacerbated the transmission of externally generated cycles, especially in international capital markets.

Under this new context for small open economies, we discuss a number of domestic policies in four areas – monetary policy, the regulation of capital flows, exchange rate regimes, and fiscal policy – to improve the quality of macroeconomic management, so to contribute to achieve sustainable growth and social equity.

INTRODUCTION

The economic and social performance of many developing economies during the last decades has been disappointing. In spite of the theories that predict convergence with developed countries under a context of trade and capital account liberalization, a significant part of the developing world has been diverging for more than two decades and experiencing a worsening in its already unsatisfactory social indicators, like poverty and income distribution.

Recently, two trends have taken place in the design of macroeconomic policies in the developing world. First, emerging economies (EEs) are resigning the use of
stabilizing instruments by sharply reducing or eliminating discretionality in fiscal, monetary, capital account and exchange rate policies. Second, the orthodox agenda has redirected its view from the trade, financial and macroeconomic liberalizing reforms pushed in the eighties and nineties to microeconomic and institutional fields, claiming for a new round of reforms of second generation as the new set of prescriptions to grow. The underlying assumption is that the first generation, including the macroeconomic task has been, in general, well done by EEs. This benign view is based on the success achieved in reducing inflation and improving fiscal balances. These are the two basic ingredients of the orthodox understanding of macroeconomic balances.

In our view, however, one main cause of the poor performance of several EEs relies heavily on the shortcomings with respect to a comprehensive approach to macroeconomics, an approach concerned about the contribution of the macroeconomic environment for economic growth. Both economic reforms and macroeconomic policies have exhibited deep failures, with pervasive effects on long-term economic growth. In particular, the increased proclivity to suffer external crises, and their effects on overall volatility, in a context of weak or ineffective domestic counter-cyclical policies, are key elements to understand the economic and social deficits of many EEs. The instability of economic activity, of aggregate demand and of macro-prices (such as the real exchange rate), have been an outstanding and pervasive problem in the last two decades. The failures in this area constitute macroeconomic imbalances, disregarded by the more financieristic approach in fashion. Therefore, these shortcomings should be in the core of a macroeconomic policy suitable for growth.

In section I we compare the contrasting economic performance of two groups of emerging economies, Latin America and East Asia. In section II, we analyze the importance of macroeconomic balances in the economic performance of the two regions. We highlight especially the role of real imbalances in explaining economic growth divergence and their connection with international capital flows in the last decades. In section III, we review the determinants of capital flows and the nature of their volatile features. In section IV, we discuss a number of domestic policies to improve the quality of macroeconomic management so to contribute to achieve sustainable growth and social equity.
I. Convergence in orthodox policies, divergence in growth and welfare

From an economic point of view, the world is increasingly integrated: trade and capital flows are much more intense than two or three decades ago (Bouzas and Ffrench-Davis, 2004). However, the expected benefits from globalization have been rather missing for a sizable proportion of the emerging and developing economies (see Stiglitz, 2002). A paradigmatic case is Latin America, where almost every country adopted the “globalizing” policy prescriptions based on the Washington Consensus1, achieving higher export dynamism and international financial integration, but also frustrating results in economic growth and social progress. As a matter of fact, the per capita output of Latin America is now nearly at the level of 1980; since inequality has increased over this period, the percentage of the population living under the poverty line exceeded in 2003 by more than 5 points that of 1980. At the outset of the new century, investment ratios and unemployment rates were even worse than during the so-called lost decade with the debt crisis of the 1980s.

East Asia, in turn (notwithstanding the Asian crisis), has recorded an impressive growth in the last decades. Today its per capita GDP is 130% larger than in 1980. In parallel, most social indicators, like poverty and income distribution have improved sharply. East Asian economies also have opened up their markets, but their processes have been rather gradual and many countries remain with significant degrees of public intervention.

[Table 1]

The different growth paths of Latin America and Asia can be seen in table 1, that presents rates of change of output per worker for 1971-2003, in both regions, and in the United States that is used as a (developed economy) benchmark to check the degree of convergence of our sample countries. The difference between the two groups of developing countries is shocking, considering that all the countries in this sample are capital-scarce, with comparable levels of per capita output at the beginning of the period.

1 The high degree of implementation of the Washington Consensus in Latin America is well documented. See, for example, IADB (1997); Lora (2001); Morley, Machado and Pettinato (1999), for a quantitative assessment of the degree of advance. For a more comprehensive and policy-oriented analysis, see Ffrench-Davis (2000); Stallings and Peres (2000); Williamson (2003); and World Bank (1997).
On the one hand, in Latin America, gross productivity per worker presents today, on average, the same level of 1970. Only two countries (Chile and the Dominican Republic) do not show divergence with the United States, and 8 out of the 19 economies produced in 2003 less output per worker than one third of a century ago. Indeed, Latin America as a whole experienced convergence during 1971-80 (actually, this was a sustained trend from 1950), and only fell into a phase of big divergence with the debt crisis in the 1980s and in the subsequent period of neoliberal policies (1990-2003). East Asia, on the contrary, has exhibited a marked and sustained convergence in the last decades, increasing its productivity per worker much faster than the United States in 1971-2003. Only Philippines was unable to converge with the United States in that period.

In other words, countries that have “converged” more rapidly towards a framework of open markets have diverged from the point of view of the output per worker. On the other corner, countries that liberalized their markets more gradually, maintaining a set of restrictions and regulations, present stronger convergence. Could we conclude that freeing highly intervened markets is bad for growth? We do not think so. Undoubtedly, Latin America needed a program of macroeconomic stabilization and a set of economic reforms in several areas in the early eighties. However, two kinds of problems emerged in the process. On one hand, the way in which economic reforms were carried out was usually biased towards accomplishing a limited set of macroeconomic goals (balancing public budgets and reducing inflation), at the expense of real and external balances. In doing so, some countries neglected the importance of reaching comprehensive macroeconomic balances as a necessary condition for sustainable high growth (see section II). On the other, the intensity and sequencing of some liberalizing reforms has been inadequate, given the degree of market imperfections in some key areas of EEs. This is the case of the domestic capital markets and financial flows, as we will discuss in section III, which have been the major source of business cycle instability in the EEs.

II. Macroeconomic balances and economic growth

1. The requirement of comprehensive macroeconomic balances
What are the main causes of the poor economic performance of Latin America? Why some emerging economies in East Asia have been able to grow so rapidly? Quite conscious of the decisive role of micro and meso dimensions, here we will focus on macroeconomics. We understand that the causes of economic growth can be found also in several other dimensions, from the neoclassical transitional factors to a wide set of crucial determinants like the dynamics of technological change, the quality of labor and capital markets, specific or horizontal public policies, institutions and politics, etc (see Ocampo, 2004). However, it is in the macroeconomic arena where the basic necessary preconditions for economic development are generated. Economic growth depends on market incentives and, consequently, even the most potentially profitable activities in capital-scarce economies or the best public programs need the existence of conditions of stability and predictability to be successfully carried out, referred normally as macroeconomic balances or “fundamentals”.

In this sense, there is a broad consensus that macroeconomic “fundamentals” are a most relevant variable for growth. But, there is wide misunderstanding about what constitutes “sound fundamentals”, and how to achieve and sustain them. As mentioned, the approach in fashion emphasizes macroeconomic balances of two pillars: low inflation and fiscal balances, together with full opening of the capital account. We call it financial macroeconomic balances. This orthodox approach assumes, either that that is enough for achieving productive development in a liberalized economy, or that it becomes enough with the addition of microeconomic reforms. What is missing in this view is that there is an important additional pillar: the macroeconomic real balances, which reflect the consistency between the productive capacity and its rate of utilization (employment of capital and labor) and several macro-prices and ratios. This third pillar –whose performance has been highly associated to the pervasive volatility of capital flows– has huge implications on the capacity to expand the productive capacity of a country, and on social indicators.

Actually, as we will see below, the association between capital flows and domestic economic activity has been an outstanding feature of the EEs during the last

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2 This is the approach, for example, of Stanley Fischer (1993). There he concludes that “the evidence reviewed and presented in this paper supports the conventional view that a stable macroeconomic
quarter century. This fact highlights the central role played by the mechanism by which externally generated boom-bust cycles in capital markets are transmitted to the developing world, and the vulnerabilities they generate. This implies that an essential objective of macroeconomic policies is how to reap the benefits from external savings, but reducing the intensity of capital account cycles and their negative effect on domestic economic and social variables. Thus, an external deficit consistent with the absorptive capacity of the economy and a profile of external liabilities linked to productive variables (in terms of maturities and currency matches) are key ingredients of sustainable macroeconomic balances.

All macroeconomic balances are necessary conditions to sustainable growth in a long-term view. However, in the short-run some imbalances can appear to be innocuous or even beneficial since they can contribute to some other macroeconomic stabilizing task, given that there are some short-term tradeoffs, for example:

i) Between the level of unemployment of labor and capital (that is, the output gap) and the rate of inflation (via the Phillips curve).

ii) Between the level of unemployment and the fiscal deficit (via the aggregate demand).

iii) Between the exchange rate appreciation (and consequently the external deficit) and the inflation rate (in small open economies, via effect of imported goods prices on CPI).

The story of pervasive macroeconomic imbalances is usually the story of bad management of these tradeoffs. Indeed, the over-emphasis in one macroeconomic dimension can generate imbalances in some other important area of the economy. When the latter are corrected, the initial gains in the former are frequently reversed. In other words, in order to reach a sustainable balance in any variable it is necessary to advance comprehensively in the comprehensiveness of macroeconomic management.

If we compare the successful economies of East Asia with Latin America, we will realize that in the first group the number of macroeconomic imbalances has been much lower during the last decades. Is this fact connected with the economic performance of the two regions? In figure 1 we develop a very simple exercise for a sample of 15
countries in order to link structural economic growth with macroeconomic disequilibria. We defined a set of episodes of macroeconomic imbalances, based on a set of conditions in the real sector, in the price stability, the fiscal accounts and in the external accounts (see notes in figure 1). The negative relationship between the episodes of macroeconomic disequilibria and economic growth is clear in all the areas considered, especially in the case of real imbalances. Moreover, there are positive correlations among the different kinds of imbalances, reflecting that short-term tradeoffs are not persistent in the long run. The causality has been diverse. In the seventies, a common externally generated shock – the rise in international oil-prices– simultaneously tended to depress output (and consequently fiscal revenues) and to stimulate price level increases in all oil-importing countries. In some other cases, necessary stabilization plans to correct inflation and fiscal deficits were accompanied by recessions (as in some Latin American countries in the late eighties and early nineties). In other episodes, imbalances in the external front caused currency crises and recessions; subsequently, devaluation provoked inflationary pressures and output drops worsened fiscal deficits (as in Latin America and the Philippines after the debt crisis, Indonesia after the Asian crisis and Argentina in 2002).

[Figure 1]

In the last decade both fiscal balances and inflation rates have shown significant improvements in EEs, and particularly in Latin America (see Ffrench-Davis, 2000). Often comparable to those of industrialized economies. However, the real economy of EEs has experienced high instability of economic activity, associated to outlier interest and exchange rates and to aggregate demand. Some observers (see World Bank, 1997) pointed out that now it was time to advance towards a new agenda in institutional and microeconomic issues, assuming that the macroeconomic management is satisfactory in most EEs. Figure 2 shows stylized indexes of real imbalances in Asia and Latin America for the period 1970-2003, based on the number of recessions in each region during 5-year windows. There, it is evident that real volatility has remained at high levels in Latin America, after peaking during the debt crisis, while in East Asia it intensified notably since the crises that started in 1997. The counter argument is that recessions are part of the business cycle, which, it is assumed, has no effect on trend economic growth. As we

sustained economic growth.”
will see below, both international evidence and theories, based on the implications of irreversible allocative decisions and heterogeneous agents, contradict this neoclassical hypothesis.

[Figure 2]

2. **Real Volatility and economic growth**

The negative relationship between real volatility and growth – that breaks the standard neo-classical dichotomy between growth and economic fluctuations – has been extensively documented. For example, Ramey and Ramey (1995) find a significant negative effect of GDP volatility on economic growth, both for a large sample of 92 countries and for a small sample of developed economies (OECD). Fatas (2002) also finds significant evidence of the negative effect of short-term real instability on economic growth with a sample of 98 countries, after correcting by a set of “bad” policies.

The channels that transmit the negative effect of volatility on growth are several. First, capital formation is highly sensitive to real balances. On the one hand, real volatility is associated to larger output gaps which implies a higher average underutilization of the stock of capital that discourages additional investment: if there is plenty idle capacity then there is less incentive to invest in new productive assets (Ffrench-Davis, 2000). On the other hand, larger volatility implies higher uncertainty and, consequently, it deters irreversible productive investment (Pyndick, 1991). These negative effects have been found significant by a number of econometric studies (see for example Aizenman and Marion, 1999; Moguillansky, 2002; and a number of essays on Latin America in Ffrench-Davis and Reisen, 1998). Finally, intense economic fluctuations tend to depress government revenues, which induces cuts in public investment. Figure 3 shows the significant negative relationship, in East Asia and Latin America, between output gaps and investment rates (both expressed as a share of potential GDP) during the last decades.

[Figure 3]

Second, real macroeconomic instability affects more intensely the poor (Rodrik, 2001; World Bank, 2003). Indeed, real volatility causes unemployment of capital and
labor, that is, an increase in output gaps. Since lower income groups (whose unique productive asset is their labor force) tend to suffer higher increases in unemployment rates under a recessive environment, crises tend to worsen income and welfare distribution. Higher income concentration and poverty levels have, in turn, negative effects on the formation of human capital, the quality of democracy and, consequently on economic growth (Galor and Zeira, 1993; Alesina and Rodrik, 1994). As a matter of fact, during the recent half lost decade (to use Ocampo’s expression for the 1999-2003 period) confidence on democracy as a political regime has declined notably in Latin America (Latinobarómetro, 2003).

Third, volatility seems to be bad for innovation or/and productivity gains. Instability rewards speculation over efficiency. Both Ramey and Ramey (1995) and Fatás (2002) find that the negative effect of volatility on growth goes beyond the response of investment and interpret this result as an indicator of how instability affects the capacity of the economy to measure risks and produce efficiently. In figure 4 we show the negative relationship between the output gap variation and the annual rate of change of TFP for the period 1970-2002, in both Asia and Latin America. However, since TFP estimates are highly sensitive to underutilization of capital and labor, it is difficult to separate how much of this relationship responds to changes in the actual use of productive inputs and how much is due to productivity gains. One implication of this analysis is that any serious research should control for the huge swings in the rate of capacity utilization when measuring productivity and the performance of policies and reforms.

[Figure 4]

When excess capacity is present, recovery naturally yields high private and social returns, but it is built on pre-existing disequilibria: on forgone profits, wages, taxes and employment whenever the economy is working below its productive frontier or economically potential GDP. Whether recovery opens the way to more sustained growth depends crucially on the characteristics of the economic recovery, on two different dimensions. First, on how fast capacity is expanded, through physical investment,
investment on human capital and productivity gains; these determine the future potential growth. Second, the sustainability of the macroeconomic environment that develops during the recovery, i.e., exchange and interest rates, current account deficit, domestic financial vulnerability, fiscal accounts and asset prices; the mix of these variables determines whether growth in aggregate demand can be sustained or will be subject to corrections associated with imbalances accumulated during recovery.

What has been the origin of real volatility in recent decades? In the case of Latin America, the main driving force of business cycles has been the volatility in international capital flows. From the mid-seventies, all major cycles in output of the region as a whole have been associated to changes in the supply of foreign capital (see Ffrench-Davis and Ocampo, 2001). In the nineties, this trend was reinforced in a context of more open capital accounts in combination with a change in the composition in the supply of foreign capital (see section III). The result was a higher propensity to balance of payment crises.

Figure 5 shows rates of GDP growth and capital flows as a share of GDP for a group of 7 Latin American countries, representing over 90% of the regional output. It is clear that economic cycles have been positively correlated with cycles in capital flows. However, a careful analysis reveals that, in addition, there is a causal relationship from capital flows to output dynamics. We run formal Granger causality tests finding that the probability that capital flows do not cause GDP growth is below 1% in our sample. On the other side, the probability that GDP growth does not cause capital flows is about 50%. Based on these results we can conclude that capital flows functioned as a leading (push) variable provoking major business cycles in Latin America. The direct policy implication is that to reduce the real volatility in the region, it is necessary to affect the supply (level, speed, composition) of capital flows and its transmission mechanisms to the domestic economy (see section IV).

[Figure 5]

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4 In section III we discuss that in boom-bust cycles there is a significant interplay between domestic and external variables, which is not considered in this exercise. In this sense, neither capital flows nor GDP growth is entirely an exogenous variable. However, the Granger causality test helps us to understand that movements in capital flows lead the business cycle and, consequently, policies aimed to affect them will have effects on the path of economic activity as well.
III. Pro-cyclical capital flows and real macroeconomic instability

As discussed above, movements in capital flows have led major fluctuations in aggregate demand and output. There has been a process featured by a boom stage, where foreign capital stimulate the domestic economy followed by a bust with a sharp reversal in the capital account causing a decline in rates of change of aggregate demand and of GDP growth. Most recent macroeconomic crises in East Asia and Latin America have shown this close association with strong swings of private capital flows. In this section, we analyze the causes of this main source of volatility.

1. Supply-originated imperfections in international capital markets

International capital markets are not perfect. There is an extremely relevant and interesting literature on the sources of financial instability: the asymmetries of information between creditors and debtors, and the lack of adequate internalization of the negative externalities that each agent generates (through growing vulnerability), that underlie the cycles of abundance and shortage of external financing (Krugman, 2000; Stiglitz, 2000; Harberger, 1985). Beyond those issues, as stressed by Ocampo (2004), finance deals with the future, and evidently concrete "information" about the future is unavailable. As he states, the tendency to equate opinions and expectations with "information" contribute to herd behavior and multiple equilibria. Actually, we have observed a notorious contagion, first of over-optimism, and then of over-pessimism.

Furthermore, there are two additional features of the creditor side that are crucially important (Ffrench-Davis, 2003). One feature is the particular nature of the leading agents acting on the supply side. There are natural asymmetries in the behavior and objectives of different economic agents. The agents predominant in the financial markets are specialized in short-term liquid investment, operate within short-term horizons, and naturally are highly sensitive to changes in variables that affect returns in the short-run.\(^5\) This explains why they may suddenly display a radical change of opinion.

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\(^5\) Persaud (2003), argues that modern risk-management by investing institutions (such as funds and banks), based on value-at-risk measured daily, works pro-cyclically in the boom and bust. Pro-cyclicality is reinforced by a trend toward homogenization of creditor agents. A complementary argument by Calvo and
about the economic situation of a country whose fundamentals, other than liquidity in foreign currency, remain rather unchanged during a shift from over-optimism to over-pessimism.

The second feature is the gradual spread of information, among prospective agents, on investment opportunities in EEs. In fact, agents from different segments of the financial market become gradually drawn into new international markets as they take notice of the profitable opportunities offered by emerging economies previously unknown to them. As discussed later, this explains, from the supply-side, why the surges of flows to emerging economies have been processes that went on for several years rather than one-shot changes in supply.

In addition, there have been some changes in capital markets with destabilizing consequences. As a matter of fact, the sharp, principally supply-led, increase of international financial flows since the early 1990s was notably more diversified than in the 1970s. But the outcome has been potentially more unstable, since the trend has been a shift from mid-term bank credit—which was the predominant source of financing in the 1970s— to a set of equity portfolio flows, liquid bonds, medium-and short-term bank financing, short-term time deposits, acquisitions of domestic firms by foreign investors. Thus, since the 1990s, there has tended to be a diversification toward highly reversible sources of funding; they tend to share the contagion of over-optimism and of over-pessimism. Evidently, the reversibility of flows is not observed during the expansive-boom stage of the cycles, but its pervasiveness, for real macroeconomic stability, explodes abruptly with the negative change of mood of markets. Notwithstanding the rising share of FDI along the past decade, the capital account still included a significant proportion of volatile flows, as well as inflows delinked from the direct generation of additional productive capacity, such as mounting mergers and acquisitions.

2. **Domestic adjustment in boom-bust cycles**

In the domestic side, the change in the composition of the supply of foreign capital –associated to technological innovation, institutional and policy changes in

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Mendoza (2000) examines how globalization may promote contagion by discouraging the gathering of
developed economies, led by the USA authorities and powerful lobbying forces (Bhagwati, 2004) was accompanied by a fast opening in the capital accounts of EEs, particularly in East Asia and Latin America; this opening was implemented in a period of abundant supply. The fact is that both regions moved into *vulnerability zones*: some combination of large external liabilities, with a high short-term or liquid share; currency and maturity mismatches; a significant external deficit; an appreciated exchange-rate; high price/earnings ratios in the stock market (plus low domestic investment ratios only in LACs). In parallel, as discussed below, agents specialized in microeconomic aspects of finance, placed in the short-term or liquid segments of capital markets, acquire a dominant voice in the generation of macroeconomic expectations.

Naturally, the rate of return tends to be higher in the productive sectors of capital-scarce EEs than in mature markets that are capital-rich. The EEs that have been converging with advanced economies have been accumulating fast physical capital. But, still, their stock per worker is low as compared to those in advanced economies. Then, there is space potentially for very profitable capital flows from suppliers in the latter to the former markets. The expected outcome in any EE moving from a closed to an open capital account, in those conditions, should tend to offer potentially high rates of return to be gained by creditors from capital surges directed to EEs.

Additionally, at the time of their financial opening, Latin American economies were experiencing recession, depressed stock and real estate markets, as well as high real interest rates and initially undervalued domestic currencies. Indeed, by 1990, prices of real estate and equity stocks were extremely depressed in Latin America, and the domestic price of the dollar was comparatively very high (see ECLAC, 1998; Ffrench-Davis and Ocampo, 2001). That was the environment found by the external supply when started to shift upward since the early 1990s. Evidently, then, capital inflows –under a binding external restriction– contributed effectively to a recovery of economic activity (to a drop of the output gap.

In the case of East Asia, when they opened their capital accounts during the 1990s, the international supply of funding was already booming. As compared to LACs, they were growing notably fast, with high domestic savings and investment ratios.

information and by strengthening incentives for imitating market portfolio.
However, equity stock was also cheap as compared to capital-rich countries (exhibited low price/earnings ratios), and liquid external liabilities were extremely small.

The outcome of the combination of capital account opening and plentiful international supply, in both emerging regions, for instance, was a spectacular rise in stock prices, multiplying in average the price index by four in 1990-94 and (after a drop with the Tequila crisis) by two in 1995-97 in LACs, and by two in East Asia in 1992-94 (see Ffrench-Davis, 2003, table 2.1). Other asset markets moved in the same direction, as well as foreign currency markets.

It is relevant for policy design that these adjustments proceed, in a given direction, for rather long periods. In fact, it must be made a distinction between two different types of volatility of capital flows, short term ups-and-downs, and the medium term instability, which leads several variables –like the stock market, real estate prices and the exchange rate– to move persistently in a given direction, providing "wrong certainties" to the market and encouraging capital flows, seeking economic rents rather than differences in real productivity. Private capital flows, led by mid-term volatility (or reversibility) of expectations, usually have a strong and costly pro-cyclical bias.

Because of its policy implications for the quality of trade and for macroeconomic sustainability, it is most relevant what happens with the behavior of exchange rates during the expansive or boom stage, when external imbalances and currency and maturity mismatches are being generated. During the boom is when the degrees of freedom to choose policies are broader. The increased supply of external financing in the 1990s generated a process of exchange-rate appreciation in most LACs, as well as, more moderately, in East Asia; the expectations of continued, persistent, appreciation encouraged additional inflows from dealers operating with maturity horizons located within the expected appreciation of the domestic currency. For allocative efficiency and for export-oriented development strategies, a macro-price –as significant as the exchange rate– led by capital flows conducted by short-termist agents reveals a severe policy

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6 For short-termist agents the actual and expected profitability were increased with the appreciation process. That same process, if perceived as persistent, would tend to discourage investment in the production of tradables intensive in domestic inputs.

7 The allocative role of the exchange rate was notably enhanced after the deep trade reforms implemented in Latin America. See ECLAC (1998, chs. III and IV).
inconsistency. The increase in aggregate demand, pushed up by inflows and appreciation, and a rising share of the domestic demand for tradables, augments 'artificially' the absorptive capacity and the demand for foreign savings. Thus, the exogenous change – opened by the transformations recorded in international capital markets– was converted into an endogenous process, leading to domestic vulnerability given the potential reversibility of flows.

3. The interplay of demand and supply of external financing

The interaction between the nature of agents and a process of domestic adjustment to changes in macro-prices explains the dynamics of capital flows over time: why suppliers keep pouring-in funds while real macroeconomic fundamentals worsen? When creditors discover an emerging market, their initial exposure is low or non-existent. Then they generate a series of consecutive flows, which result in rapidly increasing stocks of financial assets in the EE; actually, they tend to be too rapid and/or large for an efficient absorption.

The accumulation of stocks of assets in EEs by financial suppliers, until well advanced that boom stage of the cycle, and, then, a subsequent sudden reversal of flows, can both be considered to be rational responses on the part of individual agents with short-term horizons. This is because it is of little concern to this sort of investors whether (long-term) fundamentals are being improved or worsened while they continue to bring inflows to host countries. What is relevant to these investors is that the crucial indicators from their point of view –prices of real estate, bonds and stock, and exchange-rates– can continue providing them with profits in the near term and, obviously, that liquid markets allow them, if needed, to reverse decisions timely; thus, they will continue to supply net inflows until expectations of an imminent near reversal build up.

It is no coincidence that, in all three significant surges of the last quarter century, loan spreads underwent, in a process, a continued fall, notwithstanding that the stock of liabilities was rising sharply: spreads fell for 5-6 years in the 1970s; over 4 years before the Tequila crisis, and over a couple of years after that crisis.

This behavior of spreads has implied, during the expansive side of the cycle, a
downward sloping locus, drawing a sort of a medium-run supply curve, a highly destabilizing feature indeed. During all three expansive processes there has been an evident contagion of over-optimism among creditors and, rather than appetite for risk, there prevails an underestimation or assuming away of risk. With respect to debtors, in periods of over-optimism, most debtors do not borrow thinking in default; but expecting high yields: borrowers are also victims of the syndrome of financial euphoria.

Naturally, when the debtor markets have adjusted downward 'sufficiently', the inverse process tends to emerge and can be sustained for some years, like in 1991-94 or 1995-97, or short-lived like in 1999-2000. It is relevant for equity and average growth that the upward process usually tends to be more gradual or slower than the downward adjustment, which tends to be abrupt.

The creditor's sensitivity to negative news, at some point, is likely to, suddenly, increase remarkably when the country has reached a vulnerability zone, the creditors then taking notice of (i) the rising level of the stock of assets held in a country (or region), (ii) the degree of dependence of the debtor market on additional flows, which is associated with the magnitude of the current account deficit, (iii) the extent of appreciation, (iv) the need of refinancing maturing liabilities, and (v) the amount of liquid liabilities likely to flow out in face of a crisis. Therefore, it should not be surprising that, after a significant increase in asset prices and exchange rates, accompanied by rising stocks of liquid external liabilities, the sensitivity to adverse political or economic news and the probability of reversal of expectations grows steeply (Calvo, 1998; Rodrik, 1998).

In conclusion, economic agents specialized in the allocation of financial funding (we will call it microfinance, as opposed to macro-finance), who may be highly efficient in their field but operate with short-horizons “by training and by reward”, have come to play the leading role in determining macroeconomic conditions and policy design in EEs. It implies that a 'financieristic' approach becomes predominant rather than a 'productivistc' approach. Growth with equity requires improving the rewards for productivity enhancement rather that speculation and financial rent-seeking.

IV. Domestic policies and a macroeconomics for sustainable growth

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8 Vulnerabilities were still significant in EEs when negative signals reappeared in the world economy in 2000, including the subsequent downward adjustment in the USA economy.
Domestic macroeconomic policies face the challenge of achieving an environment of reduced macroeconomic volatility, sustainable fiscal and external accounts and price stability. This task is complex since national authorities have lost several degrees of freedom as a result of liberalizing reforms in the last decades, which has exacerbated the transmission of externally generated cycles, especially in international capital markets.

We have emphasized that some variables that explain a sharp difference between the response to a volatile supply of foreign capital in EEs and in developed economies are (i) the relative scarcity of physical capital, (ii) size of financial markets, (iii) the degree of completeness of capital markets and (iv) the significance and quality of counter-cyclical policies. Here we will focus, briefly, on four key policy issues from the point of view of developing economies – monetary policy, the regulation of capital flows, exchange rate regimes, and fiscal policy– to achieve comprehensive macroeconomic balances in a volatile world.

a) Monetary Policy

Monetary policy has increasingly taken the form of inflation targeting schemes in emerging economies. This trend has been, generally, accompanied by the adoption of flexible exchange rate regimes and an open capital account. The new policy mix imposes significant challenges to economic authorities, since it presents some crucial limitations in developing countries regarding their counter-cyclical capabilities.

Inflation targeting schemes in small open economies (like those of most EEs, particularly small as compared to the huge size of international financial markets) present significant pro-cyclical features. Indeed, given the importance of capital flows on business cycles in EEs (see figure 5), the turning points of the cycle will be probably

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9 The conditions that usually define an inflation targeting scheme are: (i) adoption of the inflation target as the economy’s only (or at least dominant) nominal anchor, (ii) operational independence in the conduct of monetary policy committed to attain the inflation target, (iii) technical capability to forecast inflation and react accordingly, and (iv) high levels of policy transparency and accountability (see for example, Corbo et al, 2002). In Latin America, countries with inflation targeting schemes are Brazil, Chile, Colombia, Mexico and Peru. Argentina and Uruguay are converging towards that system. In East Asia, the list of inflation targeters includes Indonesia, Korea, Philippines and Thailand. Other countries with this monetary policy scheme are the Czech Republic, Hungary, Israel, Poland and South Africa.
featured, in its upper part, by strong expectations of depreciation and downward pressures on aggregate demand and output and, in its lower part, by strong expectations of exchange rate appreciation and a recovery of aggregate demand and production. Given the fact that in more open economies, the importance of the exchange rate in the general price index is greater, the zones with expectations of exchange rate depreciation (appreciation) will be also zones with (out) expectation of inflationary pressures. Consequently, the incentives of a Central Bank with a single nominal target will be biased towards implementing a contractionary policy just when the economy begins to experience the downward part of the cycle, and towards applying an expansive monetary policy during the recovery; that is a straight pro-cyclical approach.

Thus, a first challenge in the implementation of the monetary policy regime should be the elimination of this pro-cyclical bias. There are a number of possible solutions to deal with this issue. For example, the use of a domestic price index instead of a general price index in the definition of the inflation target (Parrado and Velasco, 2002) or the consideration of a long run inflation target to filter the transitory effects of exchange rate fluctuations and their impact on general CPI (Ball, 1999). Also, it is possible the inclusion of targets on external deficits (Marfán, 2004; Medina and Valdés, 2003) in order to impede the transmission of volatility from capital movements to domestic output, or the implementation (or strengthening) of real targets like the level of employment or the consistency of actual GDP with its potential level\textsuperscript{10}.

As a matter of fact, Chile –frequently highlighted as a successful inflation targeteer during the nineties (Mishkin, 2002 and Schmidt-Hebbel; Corbo et al, 2002)– applied a pragmatic formula to reduce inflation, which was quite far from being solely based on the inflationary goal. Indeed, in addition to a formal target in inflation (which aimed a moderated rather than an abrupt reduction), used an informal target in the current account deficit (3 to 3.5% of GDP), and an exchange rate band to avoid excessive appreciation, in combination with a monitoring of the aggregate demand behavior (Ffrench-Davis and Tapia, 2001). This comprehensive counter-cyclical policy was quite systematic in the first half of the 1990s, and loosed coherency only gradually, during the

\textsuperscript{10} Other point refers to the weight of every variable in the policy reaction function of the Central Bank. In this sense, it is important to recall that in recent years we are living an era of low or moderate inflation in
rest of the decade.

However, even if the pro-cyclical bias is eliminated, the problem of an insufficient power in monetary policy may remain. Indeed, a redefinition of the targets of monetary policy will be insufficient to develop a counter-cyclical policy if the Central Bank is unable to affect domestic expenditure in the short and medium term.

During a boom, if monetary policy is managed to regulate aggregate demand by raising interest rates, then it is likely to generate the opposite net effect in the short and medium term. Residents will finance their investment projects with external credits and short-term foreign investors will be attracted by a higher international interest rate differential (frequently widened by expectations of exchange rate appreciation). Thus, capital flows may have a great stimulating effect in economies under significant output gaps and liquidity constraints (see section III). In this context, high real interest rates can live together with a troubled tradable sector (because of RER appreciation) and a boom in aggregate demand and in the non-tradable sector, financed with external savings that typically crowd-out domestic savings. The experience of Latin America in the nineties, under a strong capital surge, was paradigmatic in this sense (ECLAC, 1998; Titelman and Uthoff, 1998).

During a bust, in turn, the capacity of monetary policy to face shocks is even more restricted, especially if the country is in a vulnerability zone. Textbook theory states that a fall in the domestic interest rate, given the international rate, would cause capital outflows that will depreciate the exchange rate. Depreciation would favor the recovery in tradables output, stimulating overall GDP. In practice, however, in the short run the negative effects of depreciation on overall consumption and balance sheets are usually stronger than the positive pulls on tradables. If, on the contrary, monetary policy is used to stop the capital flight, the outcome is even more troublesome. In this context, the interest rate can be effective on the aggregate demand control (aggravating a recession), and ineffective on the capital flows under strong expectations of depreciation and contagion of pessimism. For instance, in order to compensate an expected devaluation of say 10% during one week it is needed a short-term interest rate exceeding an annual equivalent of well over 500%.

developed nations, in Asia and Latin America. Under low or moderate rates of inflation, additional efforts
In summary, the effectiveness of counter-cyclical monetary policy in a context of open capital account and flexible exchange rates is much more limited than what is predicted by the standard static textbook model. Therefore, the main policy implication of our analysis is that it is crucial to regulate capital flows as a way of making room simultaneously for complementary and coherent counter-cyclical exchange rate and monetary policies.

b) Regulation of capital flows

Capital account regulations may perform as a prudential macroeconomic tool, working at the direct source of boom-bust cycles: that is, unstable capital flows. If effective, they provide room for action 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 usual quasi-fiscal costs of sterilized foreign exchange accumulation. What is extremely relevant is that, in the other corner of the cycle, of binding external constraints, they may provide space for expansionary monetary and fiscal policies.\textsuperscript{11}

Overall innovative experiences in the 1990s of across-the board price restrictions on liquid and short-term financial inflows, indicate that they can provide useful instruments, both in terms of improving debt profiles and facilitating the adoption of counter-cyclical macroeconomic policies. The basic advantages of a price-based instrument applied to inflows, pioneered by Chile, are its simplicity, rather non-discretionary character, and its action through gradual or mini-adjustments to avoid accumulation of disequilibria. In that sense, they are directed to provide a rather more stable macroeconomic environment for (i) irreversible investment decisions; (ii) avoiding significant output gaps between actual and potential GDP; (iii) avoiding outlier macro-prices (exchange and interest rates), and (iv) macro-ratios (deficit on current account/GDP; price/earnings ratios of equity stocks; net short-term and liquid external

\textsuperscript{11} Ocampo (2003) emphasizes that capital account regulations also serve as a liability policy. The market rewards sound external debt structures, because, during times of uncertainty, the market responds to gross financing requirements, which means that the rollover of short-term liabilities is not financially neutral. This indicates that economic policy management during booms should seek to improve maturity structures, of both private and public sector liabilities.
liabilities/International reserves). The more quantitative-type Malaysian systems, geared intensively to outflows, have shown to have stronger short-term macroeconomic effects (Ocampo, 2003). Traditional exchange controls as in China and India (e.g. prohibitions on short-term financial borrowing) may be superior if the objective of macroeconomic policy is to significantly reduce the domestic macroeconomic sensitivity to international capital flows.\footnote{See, for instance, Ffrench-Davis (2002, chapter 10), Ffrench-Davis and Tapia (2004) and Le Fort and Lehmann (2003) on Chile; Kaplan and Rodrik (2001) and Mahani, et al. (2004) on Malaysia.}

It is evident that prudential regulations and supervision of the domestic financial systems are needed for the sake of transparency, honesty and microeconomic efficiency. The record was negative in many cases of liberalization of domestic finance, without the previous reform and strengthening of regulation and supervision. A severe banking crisis in Chile in 1983, costing the Treasury one-third of GDP, interestingly had been lost in the memory of financial reformers of the 1990s in Latin America; most bulky errors were replicated in the financial reforms implemented under the aegis of the Washington Consensus.

The typical results were credit booms, maturities and currencies mismatches, and eventually banking crises. As seen in the paradigmatic Chilean case (but also later in Mexico, East Asia, and Argentina), the errors by public or private domestic actors themselves could provide the basis for such crises; if combined with external shocks, the situation becomes far more severe (Ffrench-Davis, 2002, ch. 6). Government rescues tended to follow a standard package. In general, they involved takeover of non-performing loans, recapitalization of banks, and liquidations and mergers, usually involving (crowding-in) foreign institutions.\footnote{There have been sizable acquisitions in the banking activity of EEs, particularly in Central Europe and Latin America. For instance, in Argentina half of banks assets belonged in 2000 to foreign controlled banks. Interestingly, foreign ownership has implied that offshore lending by those banks has converted to onshore lending (see Hawkins, 2003). The conventional argument that the local presence of foreign banks would assist EEs in facing financial shocks, apparently, has not been supported in the case of Argentina.}

Thus prudential regulation and supervision should take into account not only microeconomic risks, but also the macroeconomic risks associated to boom-bust cycles (Ocampo, 2003). In particular, counter-cyclical devices should be introduced into prudential regulation and supervision, involving a mix of: (i) forward-looking provisions for latent risks, on the basis of the credit risks that are expected throughout the full
business cycle; (ii) more discrete counter-cyclical prudential provisions decreed by the
authority on the basis of objective criteria (e.g., the rate of growth of credit as compared
to GDP); (iii) counter-cyclical regulation on the prices used for assets given in guarantee,
and (iv) capital adequacy requirements focussed on long-term solvency criteria rather
than on cyclical performance.

In the literature and in policy-making there is a widespread view that these direct,
price-based or quantitative, regulations on capital flows can be partly substituted by
prudential regulation and supervision on domestic financial institutions. As argued by
Ffrench-Davis and Ocampo (2001), the main problem with this option is that it does not
take care of the external borrowing of non-financial agents and, actually, may encourage
their borrowing abroad (a severe problem, for instance, in the crises of Korea and
Thailand); a large part of inflows in several crises has originated in sources other than
domestic bank intermediation. Accordingly, financial regulations would need to be
supplemented with other disincentives to external borrowing by those firms, deterrents
that may become cumbersome and extremely difficult to implement. They may include
restrictions on the class of firms that can borrow abroad, restrictions on the terms that
corporate debts can be contracted, and tax provisions that raise the cost of direct
borrowing in foreign markets. Price-based capital account regulations may thus be a
superior alternative and much simpler to administer.

c) The exchange rate regime

The exchange-rate regime has become a much more influential variable in EEs,
both on trade and finance. It is subject to two conflicting demands, which reflect the more
limited degrees of freedom that authorities face in a world of reduced policy effectiveness
(see Ffrench-Davis and Ocampo, 2001; ECLAC, 2002). The first demand comes from
trade: with the dismantling of traditional trade policies (tariff and non-tariff restrictions),
the real exchange rate has become a key determinant of international competitiveness and
a crucial variable for an efficient allocation of resources into tradables. It is noteworthy
how the two corner solutions disregard this fact. The second is from the capital account.
Boom-bust cycles in international financial markets generate a demand for flexible
macroeconomic variables to absorb, in the short run, the positive and negative shocks
generated during the cycle. Given the reduced effectiveness of traditional policy instruments, particularly of monetary policy, the exchange rate can play an essential role in helping to absorb shocks. This objective cannot be easily reconciled with the trade-related goals of exchange-rate policy; particularly, of a growth strategy based on export expansion and diversification.

The relevance of this bipolar demand is ignored in the call to limit alternatives to the two extreme exchange rate regimes, either a totally flexible exchange rate or a currency board (or outright dollarization). Intermediate regimes, of managed exchange-rate flexibility—such as crawling pegs and bands, and dirty floating—, attempt to reconcile these conflicting demands (see Williamson, 2000). They are crucial for achieving sustainable real macroeconomic equilibria.

Completely rigid exchange rate systems tend to amplify external shocks, because they put too strong and unrealistic requirements on domestic flexibility, in particular on wage and price flexibility in the face of negative shocks. Currency boards certainly introduce built-in institutional arrangements that provide for fiscal and monetary discipline, but they reduce radically any room for stabilizing monetary, credit and fiscal policies, which are all necessary to prevent crises during mid-term capital surges and to facilitate recovery in a post-crisis environment. Convertibility allows the domestic transmission of external shocks, generating strong swings in economic activity and asset prices, with the corresponding domestic financial vulnerability. There is an amplification effect when agents consider that an external shock that is strong enough can induce authorities to modify exchange rate policy; this is particularly so when the rate appears to be an outlier price, too appreciated (see Ffrench-Davis and Larraín, 2003).

Notwithstanding the pitfalls of the family of nominal pegs, there are cases in which it can work efficiently. The currency board in Argentina, assisted by the capital surge to LACs since the early 1990s, was quite effective in contributing to defeat hyperinflation, evidently the more harmful problem of that economy in 1991. The most severe mistake of the Argentinean authorities—encouraged by the subsequent good ratings and appraisals received from IFIs—was not to use the opportunity provided by the international environment, in 1992 or 1993 and again in 1996-97, to flexibilize the exchange rate when inflation and the budget already were evidently under control, capital
inflows were vigorous and spreads to EEs, quite explicitly including Argentina, were falling. It was an opportunity to shift to an intermediate regime and regain the exchange rate as a macro-policy tool.

On the other hand, the volatility characteristic of freely floating exchange rate regimes is not a problem when market fluctuations are short-lived; in such case they are easily faced with derivatives (see Dodd, 2003). But fluctuations become a major concern when there are longer waves, a longer-lasting process, as has been typical of the access of EEs to capital markets in recent decades. In this case, persistent appreciation of that macro-price during capital surges tends to generate perverse effects on resource allocation in irreversible capital formation. Moreover, as discussed above, under freely floating regimes with open capital accounts, counter-cyclical monetary policy exacerbates pro-cyclical exchange rate fluctuations, with their associated allocative and income effects.

The ability of a flexible exchange rate regime to smooth out the effects of externally-induced boom-bust cycles thus depends on the capacity to effectively manage a counter-cyclical monetary and credit policy without enhancing pro-cyclical exchange rate patterns. This is only possible under intermediate exchange rate regimes cum-capital-account regulations (see section IV.1). That was, clearly, the case of Chile in the first half of the 1990s (see Ffrench-Davis, 2002, ch. 10; Le Fort and Lehmann, 2003).

In many cases bands did not behave well during the Asian crisis. That was partially induced by the actual management of the band. The huge increase in capital inflows to emerging economies, that took place between 1990 and 1997, did put severe upward pressure on exchange rates. The frequent response, in terms of expanding the size of the band or appreciating it, induced a credibility loss. Subsequently, bands already with a too appreciated rate, -and domestic economic structures growingly accommodated to the relative price change– had trouble in adapting to the sharp shift in the market mood brought by the Asian crisis, when capital inflows suddenly stopped. These facts aggravated the mismanagement of bands, and therefore induced a further credibility loss.

14 That policy reaction was, most probably, encouraged by the strong belief in fashion that financial crises were gone for long (or ever?). Recall, for instance, the proposal by the IMF, with the pressures of the Treasury of the United States and Wall Street to change its articles of agreement in order to force member countries to across-the-board capital account opening (see Bhagwati, 2004, pp. 204-5, for what he calls “the energetic lobbying of Wall Street and the Wall Street-Treasury complex” leading that process).
The major benefit of managed flexibility, including bands, arises in times without severe shocks. In that case, bands induce more real exchange rate stability, keeping the ability to partially absorb the effects of moderate shocks. Consequently, the exchange rate fulfils more efficiently its allocative role between tradables and non-tradables.

Obviously, intermediate regimes may also generate costs and shortcomings (see Ocampo, 2003). First, intermediate regimes are subject to speculative pressures if they do not achieve credibility in markets, and the costs of defending the exchange rate from pressures under these conditions are very high. Second, sterilized reserve accumulation during long booms may become financially costly. Lastly, the capital account regulations needed to manage intermediate regimes efficiently are only partially effective. But, all things considered, intermediate regimes offer a sound alternative to costly outlier macro-prices.

However, a policy suitable for a given macroeconomic environment may not be so in another. In this sense, one crucial element to bear in mind when adopting a given policy is how costly it may be to switch to an alternative policy (Ffrench-Davis and Larraín, 2003). Credible pegged systems may be useful when a crisis, with hyperinflation, has bottomed, and there is plentiful supply of external funding. Floating systems are useful in times of financial distress, when authorities have doubts concerning the level of the real rate, or the nature of the shock they face; flotation allows them not to put in jeopardy their reputation defending a wrong price. Finally, bands or managed flexibility contribute to stabilize the real exchange rate. Stability in the real exchange rate has a positive upgrading effect on exports and on growth (see ECLAC, 1998, ch. IV). But bands suffer a weakness if a "big shock" appears and authorities fail to have avoided vulnerability zones during the previous boom. In that case, they open the way to speculation, inducing significant financial instability, which can be faced, more efficiently, moving temporarily to a fully flexible rate.

Corner solutions do not have symmetric consequences. With a capital surge, each policy will deliver different combinations of the evolution of the current account, of asset prices increase and of the real exchange rate. With a peg, capital surges create a demand boom, pulling-up asset prices, probably with a crowding-out of domestic savings and a worsening of the external balance (see Frenkel, 2004). Under a floating regime, a
nominal appreciation will tend to take place making the process of real appreciation deeper (and henceforth potentially more disruptive) than with the peg. Pegs tend to work better in the upward phase of the cycle, but after the inflection point the float does it better in terms of the necessary expenditure switching. But, in this type of cycle there is the possibility of multiple equilibria based on self fulfilling beliefs: expectations of more inflows (outflows) may further appreciate (depreciate) an already appreciated (depreciated) currency.

Large deviations from equilibrium of the real exchange rate are costly for the real economy. Central Banks should be concerned with both the level and the stability of this macro-price. In this sense, despite what has happened since the Asian crisis, managed flexibility, with or without bands, is still a policy to be considered by policy-makers. They need to be careful with across-the-board liberalization of the capital account, as the behavior of capital flows tend to be inconsistent with real macroeconomic stability, particularly in terms of the sustainability of the exchange rate and economic activity. In this sense, authorities need to have flexible policy packages rather than single rigid policy tools (Ffrench-Davis and Larraín, 2003).

d) **Fiscal policy**

Fiscal policy should look at macroeconomic instability in two senses. On the one hand, since public revenues and expenditures are sensitive to business cycles, it is crucial to ensure a path of public consumption consistent with the transitory needs that surge during the downturn (social subsidies) and with stable fulfillment of the permanent goals of the government (regular budget, including public investment). On the other hand, fiscal policy has also a macroeconomic role, in terms of the sustainability of public accounts and the regulation of aggregate demand.

Fiscal policy has been at the core of the debate on adjustment programs in EEs (see ECLAC, 1998; Ocampo, 2002). Both in East Asia and Latin America the more conventional recipes recommended achieving current or annual fiscal balances, under recessionary conjunctures that had depressed tax proceeds. That is a typically pro-cyclical behavior. In recession, usually fiscal policy has been directed towards keeping under control financial solvency, while during booms expenditure tends to expand with the
cycle. This pro-cyclical stance tends to restrict the room for social programs or reduce the scope of public investment during recessive periods and, in doing so, strengthens the negative effects of volatility on living standards and future economic growth, respectively. In addition, a pro-cyclical fiscal policy exacerbates the boom and deepens the bust in the private sector, increasing macroeconomic instability and complicating the functioning of monetary and exchange rate policies.

Development of counter-cyclical fiscal mechanisms in LDCs is especially relevant for two reasons. First, because markets in developing countries tend to be much more volatile than in those developed. This implies that the effect of the business cycle on the public accounts is stronger, and consequently the need of budgetary flexibility greater. Second, because developing economies face significant constraints to the use of fiscal policy. On the domestic side, the size of automatic stabilizers tends to be smaller than in developed economies; on the external side, the capacity to manage deficits is more limited, given the pro-cyclical character of international capital markets.

How to deal with these problems? As part of a counter-cyclical policy package, the concept of \textit{structural fiscal balance} is the most outstanding fiscal component. There are different definitions, but the essential component is the measurement of the balance across the business cycle, estimating at each point of time what would be the public expenditure and income in a framework of sustainable full employment of human and physical capital. If the terms of trade fluctuations are relevant for fiscal proceeds –via profits of public or private exporters– the purchasing power of potential GDP should be estimated at the trend terms of trade as well as public income.

Developing countries typically concentrate their international trade on a few commodity exports, which are subject to highly volatile market prices. Especially, when a significant export –like copper in Chile, and oil in Colombia, Mexico or Venezuela– is public property, the establishment of a stabilization fund can contribute to both fiscal and overall macroeconomic sustainability. Also the coffee fund in Colombia has played, for long, a significant stabilizing macroeconomic role; since coffee is a private product, the fund contributes directly to stabilize the current account and private domestic expenditure. Above the trend or "normal" public proceeds from that source are saved in the fund, so to finance public expenditure when proceeds are below "normal". It is highly
recommended to initiate it in a scenario of high prices in comparison to trend prices, so that the fund could actually finance subsequent negative price scenarios.

The same principle of stabilization funds can be used for deviations in tax proceeds from their structural level. For instance, when the external deficit is above a "sustainable" level, because of excess domestic absorption, then the proceeds of the value added tax (VAT) would exceed the structural level. That excess should be automatically saved in the fund. That would contribute to push aggregate demand downward towards equilibrium. Moving further, flexible tax rates have been proposed as an additional counter-cyclical device. For instance, it has been proposed to increase the VAT rate during booms and to compensate it with drops during slack periods. Of course, the most direct tool is regulation of flows when they are the source of disequilibria.

All the mentioned measures help to develop a cyclically-neutral fiscal policy, where current expenditure is tied to its structural level—smoothing public consumption—, separated from current revenues. In some recessive situations, however, governments may decide to carry out expenditure expansive shocks in order to stimulate domestic demand, running structural deficits. If this is the case, a subsequent recovery to the potential sustainable output will not be enough to stabilize the public debt level. Therefore, additional measures should be taken after recovery in order to reduce the structural deficit.15

The fiscal instruments chosen to implement counter-cyclical policies must be carefully chosen. During booms, for example, a reduction in public expenditure will be probably insufficient to compensate an excess of expenditure of the private sector led by capital inflows. An increase in taxes, instead, can affect directly the agents with a higher propensity to spend. During an economic downturn, a tax relief may be ineffective under a depressed macroeconomic environment and a private sector reluctant to consume and invest. Public expenditures in non-tradables can, in this latter case, be a more effective instrument.

Fiscal policy ought to be part of the flexible policy package. Given that EEs are especially vulnerable to global economic downturns, over reliance on monetary policy may bring poorer macro results, as compared to a more balanced framework of counter-
cyclical fiscal, exchange rate, and monetary policy, as well as prudential regulation of capital flows. The use of counter-cyclical fiscal policy requires as a precondition to be on a path of solvent and sustainable fiscal accounts. Additionally, a more active role of counter-cyclical fiscal policy may emerge when transmission channels of monetary policy to the output gap are weak or show significant lags. Moreover, to spread the adjustment burden between fiscal and monetary policy may bring better macroeconomic results, with each macro-price (interest and exchange rates) closer to sustainable equilibria.

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Table 1
East Asia, and Latin America: Growth of GDP per worker, 1971-2003
(average annual rates)

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Sources: Based on ECLAC data for Latin America; based on Groningen Growth Development Centre
data for East Asia and the United States.

In the case of Latin America, the denominator is the labor force. In the case of East Asia and the United States the denominator is the number of employed persons.

Data for 2003 is provisional.
Definitions:
Recession Episode, if annual growth of actual GDP is less than zero.
Hyperinflation Episode, if annual rate of inflation is higher than 40 per cent.
Fiscal Imbalance Episode, if annual fiscal deficit is higher than 4 per cent of GDP.
External Imbalance Episode, if annual deficit on the normalized current account (with a trend dollar denominated GDP) is higher than 4 per cent of GDP.

Notes: Economic growth for the period 1970-2000 is defined using estimates of potential output, calculated by the authors.

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<th>Correlation matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recession</td>
</tr>
<tr>
<td>Recession</td>
</tr>
<tr>
<td>Inflation</td>
</tr>
<tr>
<td>Fiscal</td>
</tr>
</tbody>
</table>

Figure 1
East Asia and Latin America: Real macroeconomic imbalances and Economic growth, 1970-2000
The indices of real volatility measure annually a summatory of the number of recessions in the last 5-years in each continent as a share of the total number of observations for each period.

East Asia includes 6 countries and Latin America includes 9 countries.

Source: Authors' calculations.
### East Asia (6): Output gap and Investment Rate, 1975-2002

**I/PIB* = -0.955 Gap + 29.609**  
\[ R^2 = 0.477 \]

### East Asia (6): Output gap and Total Factor Productivity, 1975-2002

**d(TFP) = -0.8569 Gap + 0.975**  
\[ R^2 = 0.7313 \]

### Latin America (9): Output gap and Investment Rate, 1950-2002

**I/PIB* = -0.782 Gap + 21.171**  
\[ R^2 = 0.522 \]

### Latin America (9): Output gap and Total Factor Productivity, 1970-2002

**d(TFP) = -1.0133 Gap + 0.6188**  
\[ R^2 = 0.8206 \]

**Source:** Authors' calculations.

Latin America includes Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Peru, and Venezuela.

East Asia includes Indonesia, Korea, Malaysia, Philippines, Taiwan, and Thailand.

In the case of East Asia, the period 1975-2002 was chosen because it presents stationarity in investment rates.
Granger Causality Test on quarterly data: (5 lags)

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>F-Statistic</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP growth does not cause Capital Flows</td>
<td>0.889</td>
<td>0.4966</td>
</tr>
<tr>
<td>Capital flows do not cause GDP growth</td>
<td>3.574</td>
<td>0.0086</td>
</tr>
</tbody>
</table>

Source: Based on information from ECLAC, IMF and national sources. Moving annual averages.