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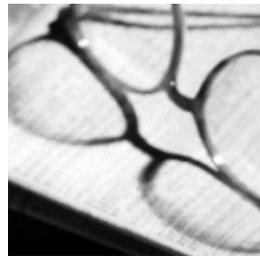
CIF

Centro de Investigación en Finanzas

Documento de Trabajo 07/2006

Exchange Rate Regimes in the 2000s: A Latin American Perspective

Eduardo Levy Yeyati
Universidad Torcuato Di Tella and IDB



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December 2005

1. Introduction

Since the demise of Bretton Woods, exchange rate policy has certainly been a topic that, in different guises, never ceases to stir some controversy in developing countries in general, and in Latin America in particular. The center of the discussion have evolved –not without some degree of circularity–, but consensus have always been ephemeral and, at best, partial. These disappointing results lie, perhaps, in the temptation to devise one-size-fits-all blueprints for an otherwise deeply diverse group of countries. In addition, the debate has been obscured by a wealth of rarefied neologisms and short-lived fads, a growing body of evidence that, while useful, is still open to criticism, and –last but not least– a changing environment that makes yesterday’s advice look dated today.

This paper has two objectives. The first one is to summarize the main ingredients of the exchange rate debate and its evolution in this 30 post-Bretton Woods years. To do that, I present the main theoretical arguments underlying the regime debate, and the evidence supporting or contradicting the implications of the theoretical literature. The findings on this front are sobering: theory had it right. In particular, the traditional tradeoff between nominal and real stability (more precisely, the intuition that pegs help lower inflation at the expense of greater output volatility) is verified in the data. This, together with recent research that shows that rigid exchange rate policies are associated with lower long-run growth, provides the key support for a growing preference for exchange rate flexibility in a context of subdued inflation –particularly after the Argentine experiment with a currency board showed the limits of the so-called “hard pegs” heralded by peg advocates as the realistic alternative to floats for emerging economies.

The second objective of the paper is to take stock of these different streams of thought to bring the debate to more practical policy grounds. With this in mind, I outline in section 3 what I believe are the questions that will dominate the exchange rate policy discussion in the wake of the new millennium. Some of them are natural spin-offs of the ongoing debate. For instance, de facto dollarization and the associated currency mismatch, to the extent that they make devaluations contractionary, has often been viewed as a motivation for interventionist exchange rate policies—which, in turn, may foster dollarization if the resulting exchange rate stability and the massive exposure to devaluations is perceived as an implicit exchange rate guarantee. Whether and how developing countries should conquer this “fear of floating” to avoid the vicious circle of exchange rate rigidity and dollarization still remains an open question.

Other questions relate to unsettled issues from the recent past. For example, the discussion about the optimal degree of exchange rate flexibility in the face of highly volatile –and procyclical– capital flows, a hot topic during the inflow period of the early 90s, is already back in the spotlight in many Latin American economies presently favored by international financial investors. The same can be said of the revived mercantilist view of the (overvalued) exchange rate as a temporary protection for local manufactures in their quest for international competitiveness. In many of these fronts, however, the intense rhetoric contrasts with the still scarce empirical evidence –and the difficulty of devising a convincing test.

Among the (few) new questions to have emerged in recent years, perhaps the most relevant involve the increasingly popular float-cum-inflation-targeting (FIT)

paradigm. Is it an evolutionary response to past experience and a new international environment, a repackaging of orthodox policy advice, or just this year's model, bound to prove inadequate at the next episode of capital account reversal? The preliminary conclusion of this paper is moderately optimistic. While the literal treatment of the FIT paradigm sometimes resembles the oversimplifications that plagued the exchange rate debate for years, its practical implementation could be viewed as a pragmatic solution to the nominal anchor problem in a new (low-inflation, financially globalized) context.

2. The exchange rate debate in the 30 years after Bretton Woods

For ease of exposition, it is useful to group the different arguments underlying the exchange rate debate into a *real* view, a *political* view and a *financial* view.

The real view, rooted in the standard Mundell-Fleming framework, argues that, in the presence of nominal rigidities, flexible (fixed) exchange rates are best fit to minimize output fluctuations in the presence of real (nominal) shocks.¹ For example, volatile terms of trade or capital flows should call for more flexibility. Moreover, to the extent that real shocks became increasingly important relative to nominal shocks in the last decades (due to global financial integration and a renewed emphasis on monetary discipline, among other factors) one should observe a steady move towards more flexible arrangements. According to this view, the countervailing side of the tradeoff is associated with the welfare gains

¹ Classic references on this are Fleming (1962) and Mundell (1963). Note that a natural implication of this view is that, if nominal rigidities are asymmetric (specifically, if prices are downward, but not upward rigid), the benefits of exchange rate flexibility should be particularly visible in the event of a negative shock.

from a stable exchange rate *vis à vis* the country's main trade partners. Specifically, economies that trade a large portion of their product with countries that use or target a given foreign currency will have incentives to peg their exchange rate to that currency.²

The political view refers to the use of the exchange rate as a nominal anchor to compensate for the lack of monetary credibility, typically in the context of large and chronic fiscal deficits and persistent inflation. Similarly, it can also be applied to the use of a peg (particularly hard pegs such as currency board agreements that limit *de jure* the degree of monetary autonomy) as a "policy crutch" to compensate for the lack of political power to fend off pressures to increase fiscal spending.³ Thus, this view would indicate that pegs should be associated with weak governments and poor inflationary records. Naturally, unless they are reversed, the very same factors that led to the adoption of a peg may conspire against its sustainability in the long run –an aspect that makes the empirical testing of this view rather problematic.

Finally, the *financial view* groups two arguments that have gained relevance only recently *pari passu* with the steady globalization of financial markets. The first one is, again, related with the traditional open macroeconomic literature. A key ingredient of the textbook Mundell-Fleming world is the idea that, in a world of perfect capital mobility (and international interest rate arbitrage), monetary

² The trade gains from exchange rate volatility found in the empirical literature are typically small. A larger positive impact has been found for the adoption of a common currency (e.g., Rose and van Wincoop, 2001), although most of these tests are based on a sample of very small countries and sub-national entities, and are subject to severe endogeneity problems. Micco and Stein (2003), testing the effect of the adoption of the euro, find a smaller increase in trade of around 15%.

³ See Drazen (2000), for an extensive review.

policies in open economies cannot be aimed both at maintaining stable exchange rates and smoothing out cyclical output fluctuations driven by real shocks. Hence, the traditional concept of the “impossible trinity” or “trilemma,” namely, the implication that policymakers can choose, at most, two out the three vortexes of the trinity (capital mobility, monetary policy and a fixed exchange rate). Based on this concept, one could characterize the evolution of exchange rate arrangements as a function of the historical phases of financial globalization.⁴ In particular, one could argue that, as financial globalization deepens, monetary policy becomes increasingly at odds with fixed exchange rates, inducing the countries to sacrifice exchange rate stability to preserve monetary autonomy.

The trilemma argument also underscores the so-called “bipolar view” of exchange rate regimes, according to which financial innovation and integration have gradually eroded the effectiveness of capital controls, rendering conventional bands and pegs more vulnerable to the monetary policy-exchange rate stability dilemma, as well as to speculative attacks and destabilizing capital flow reversals.⁵ It follows from this line of reasoning that emerging economies would tend to move (either voluntarily or forced by currency collapses) toward the extremes, adopting hard pegs (like the currency boards in Argentina or Bulgaria) or floats (as in the aftermaths of most crises in the 90s).

A second argument of this financial variety (which could be labeled the “unipolar view”) stresses the fact that, in financially dollarized economies, the associated currency mismatch offsets (and sometimes reverts) the expansionary effect of

⁴ See Obstfeld and Taylor (2002).

⁵ See, e.g., Fischer (2001).

depreciations, rendering the exchange rate instrument useless as a shock absorber.⁶ It follows that dollarized developing economies would rather peg than exposed themselves to destabilizing exchange rate fluctuations⁷ Currency boards and official dollarization are the regimes of choice in this case.

i. Exchange rate trends and fads

The previous views are easily associated with several fads that characterized the exchange rate policy discussion in the developing world over the years. Thus, the post-Bretton Woods trend toward more regime flexibility (the steady increase in the number of floats in the 80/90s) has been related to a growing financial globalization (Obstfeld and Taylor, 2002). Similarly, the political view of the exchange rate as nominal anchor inspired in the 70/80s (particularly in Latin America) various bands, “tablitas” and soft pegs that exploited the widespread indexation to the dollar to fight backward-looking inflationary expectations –the majority of which failed to elicit fiscal and monetary discipline and led to frequent realignments or sudden collapse. Partly in response to this disappointing outcome, and to the circumstantial success of the Argentine currency board in forestalling the contagion from the Mexican crisis in 1995, the late 90s witnessed the heyday of hard pegs as the plausible alternative to a float. This enthusiasm was founded essentially in the belief that de jure limits on money creation would leave rational

⁶ Financial dollarization is understood here as the holding by residents of foreign currency-denominated assets of liabilities (see Levy Yeyati 2006 for a review). Calvo (2000) presents a good exposition of the unipolar case.

⁷ See, e.g., Calvo and Reinhart (2002). An additional reason not to let the exchange rate to float emphasized by these authors is its incidence on inflation. However, rapidly falling pass-through coefficients in developing economies have rendered this factor less relevant from a policy perspective.

private investors as the sole financing source of the government, thereby ensuring fiscal sustainability.⁸ It is not surprising, then, that the years following the Argentine debacle witnessed a growing popularity of a new float-cum-inflation-targeting (FIT) “paradigm” that emphasizes the rewards of exchange rate flexibility and the use of inflation targeting (IT) as the substitute nominal anchor.

Thus, at least at first sight, the regime choice among developing countries appears to have been informed by continuous experimentation and a questionable penchant for the latest fad. This simplistic view, however, is not verified in the data.

Figure 1 presents a schematic illustration of the evolution of the distribution of de facto regimes in the post-Bretton Woods era, based on a recent extension of Levy Yeyati and Sturzenegger’s (2005) de facto regime classification to cover the first quinquennium of the 2000s.⁹ As the figure indicates, the distribution (and, in particular, the share of pegs) has remained relatively stable in the last fifteen years, partially contradicting both the bipolar and the FIT views. Latin America, however, paints a visibly different picture. There, the 2000s witnessed an increase in the share of de facto floats at the expense of more rigid regimes, in line with the FIT premise: countries are gradually learning how to live with (and profit from) exchange rate flexibility.

⁸ As noted, hard peg advocates also favor official dollarization as an alternative arrangement. El Salvador is the unique product of the de jure dollarization initiatives that flourished during these years. The debate on de jure dollarization, which I bypass here, is surveyed in Levy Yeyati and Sturzenegger (2003).

⁹ The classification, which can be downloaded at <http://www.utdt.edu/~ely/papers.html>, is built using cluster techniques as a function of the actual behavior of exchange rates and international reserves, as opposed to the IMF’s “official” exchange rate regime classification compiled based on official statements by monetary authorities.

At any rate, recent work has stressed that de facto exchange rate policy in developing economies can be generally explained by a few fundamentals highlighted by the theory (Levy Yeyati et al. 2004), notwithstanding the trends and fads that colored the exchange rate debate in the last three decades. In particular, the traditional Mundellian arguments still appear to prevail: the propensity to peg is positively associated with trade depth and concentration, and with financial dollarization, and negatively associated with the incidence of real shocks. Ultimately, the evidence points at a simple and intuitive rule: exchange rate flexibility is preferred to the extent that it can be instrumental for cyclical smoothing.

ii. Regimes & the real economy

Ultimately, the exchange rate regime debate in developing economies boils down to one simple tradeoff: enhanced monetary and fiscal discipline (lower inflation) at the cost of greater sensitivity to real shocks and greater output volatility...except under financial dollarization, where contractionary devaluations defeat the output smoothing objective. Is this theoretical tradeoff validated by the evidence? The preliminary answer provided by the empirical literature is, not surprisingly, positive.

Inflation

The typical association of fixed exchange rates with lower inflation rates is based on the belief that in a context of high (inertial) inflation and dollar indexation, an

exchange rate anchor coordinates expectations in a forward looking way around the announced exchange rate. In addition, by increasing the political cost of an unforeseen devaluation, it may work as a commitment mechanism for monetary authorities, inducing them to avoid excessively expansionary monetary policies. Empirically, the second effect would entail a slower and more stable money growth, while the first, short-run effect should reduce inflation for a given rate of money growth.

There is broad consensus on the impact of the exchange rate regimes on inflation, which has received much attention in the empirical literature: both effects are verified in the data conditional to the sustainability of the regime. Using a standard reduced money demand equation augmented to control for the regime in place, Levy Yeyati and Sturzenegger (2001) show, for a sample of developing countries in the 90s, that the mere presence of a peg reduces inflation by about 4.75 percent, in addition to a 3.77 percent decline in average money growth –although, as expected, the result holds only for the case of sustainable, long-lived pegs. Similar results are obtained by Ghosh et al. (2003) using several versions of the IMF’s de jure-based classification.¹⁰ In sum, despite the disappointing experiences with exchange rate-based stabilizations, the exchange rate appears to have been a useful coordination device that helped build up (but did not guarantee) nominal stability in high inflation countries.

Exchange rate as shocks absorbers

¹⁰ It is not surprising, then, that hard pegs are found to have an even stronger association with low inflation (Levy Yeyati and Sturzenegger, 2001, and Ghosh et al. 2003), given that they are typically longer-lived than conventional pegs.

The empirical literature has only recently addressed the link between regimes and output volatility, particularly in relation to the output response to terms of trade shocks. The findings confirm the priors: exchange rate rigidity is positively correlated with the real response to shocks (see Broda 2003, and Edwards and Levy Yeyati 2005).¹¹ More importantly, the evidence indicates that the benefits of flexibility are more significant in the event of a negative shock, as expected if one accepts that price rigidity is more acute when it comes to price cuts.

Table 1 illustrates the point. The table reproduces estimates of the deviation from the long-run growth rate as a result of positive and negative terms of trade shocks, under three different de facto exchange rate regimes: pegs, intermediate and floats. For both pegs and intermediates, the impact of a negative shock is significantly higher than that of a positive shock. Moreover, this difference is driven by the higher sensitivity to negative shocks displayed by rigid regimes, which more than doubles relative to a float. Thus, the ability of flexible regimes to accommodate real shocks is particularly important in the presence of negative external shocks.¹²

Output volatility and growth

The previous discussion offers a natural motivation for a link between exchange rate regimes and output volatility: the combination of (downward) price rigidity and exchange rate rigidity results in quantity adjustments (high unemployment

¹¹ The premise that flexible regimes are better suited to insulate the economy against real shocks goes back to the work of Friedman (1953) and Poole (1970), among others.

¹² Naturally, this presumes that exchange rate flexibility works in the standard way, in particular, that devaluations are expansionary which may not be the case in the presence of financial dollarization. I come back to this point below.

and depressed domestic demand) in the event of a (negative) real shock.¹³ For developing countries, this intuition is validated by the evidence reported by Ghosh et al. (2003) using a de jure based classification, and Levy Yeyati-Sturzenegger (2003) looking at de facto exchange rate policies: countries that tend to favor less flexible arrangements exhibit more volatile growth rates.

The implications of these exchange rate policies in terms of long-run growth performance are less obvious. On the one hand, there is some evidence of a negative link between output volatility and growth.¹⁴ However, to the extent that they reduce nominal volatility, a peg may stimulate investment and trade, lower borrowing costs and, if credible, reduce the incidence of speculative exchange rate fluctuations, all factors conducive to faster growth.¹⁵

Empirically, the results tend to favor the first channel. Levy Yeyati and Sturzenegger (2003) find strong evidence that, for developing economies, de facto pegs are systematically associated with lower growth rates than floats.¹⁶ As summarized in **Table 2** after correcting for the usual growth determinants, pegs have exhibited growth rates that are, on average, close to 2 percent higher than those of floats.¹⁷

¹³ In addition, pegs may be more prone to costly speculative attacks (see, e.g., Calvo, 1999).

¹⁴ See Ramey and Ramey (1995).

¹⁵ See, e.g., Mundell (1995) and Calvo (2000).

¹⁶ This last results is confirmed y Edwards and Levy Yeyati (2005).

¹⁷ The results hold also for the IMF de jure regime classification, once it is purged from its most obvious misclassifications: pegs that devalue. Ghosh et al. (2003), also based on de jure regimes, find no systematic link between regimes and growth, but find some evidence of lower growth rates under pegs for sub-samples of countries. More recently, Aghion et al. (2005), using their own de facto regime classification, find that exchange rate flexibility leads to faster productivity growth in financially advanced countries.

This said, the specific channel through which regimes may influence long-run performance has not been clearly identified in the data. This is particularly problematic from a policy perspective, given that the impact of exchange rate fluctuations (and, in particular, devaluations) in many developing economies tends to be at odds with the real view of exchange rate regimes underlying the previous analysis. Concretely, in the presence of contractionary devaluations, the decision to peg may not entail a loss of flexibility when the exchange rate no longer represents a viable smoothing mechanism.¹⁸ If so, the finding that a float leads to faster and more stable growth for those who can benefit from exchange rate flexibility does not imply that those who cannot should follow this lead. However, the limitations imposed by currency mismatches have been sometimes exaggerated and, at any rate, are not exogenous to monetary policy.¹⁹ This suggests that, despite current constraints, countercyclical exchange rate policy can be perfected by practice

iii. The bipolar view after Argentina

The empirical finding that exchange rate rigidity leads to output volatility and slow growth puts the bipolar view under attack. Indeed, most of these findings are shown to apply indistinctly to conventional and hard pegs.²⁰

¹⁸ See Frankel (2005) for a survey on contractionary devaluations. Alternatively, the loss of the exchange rate mechanism may be less taxing for low-income countries with underdeveloped financial markets and effective capital controls, as they preserve the capacity to conduct countercyclical monetary policy; hence, perhaps, the weaker regime-growth link found for this group of countries by Aghion et al. (2005).

¹⁹ De Gregorio and Tokman (2005) convincingly argue that the monetary tightening in Chile in response to the Asian crises was unwarranted. Chang and Velasco (2005) provide an analytical illustration of the two-way feedback between currency mismatches and monetary policy.

²⁰ See, e.g., Levy Yeyati and Sturzenegger (2001) and Edwards and Levy Yeyati (2005).

These misgivings are surely compounded by the debacle of Argentina's currency board in 2001. The implications of this episode go beyond the fact that Argentina was heralded as the poster hard peg after it successfully coped with contagion from the 1994 Mexican crisis. Indeed, the Argentine experience undermined the main premises under which the bipolar view was built, namely, that a legally bounding exchange rate regime would induce monetary discipline and that, by ruling out monetary financing of fiscal imbalances, it may force the government to balance the fiscal accounts.²¹

Fiscal sustainability in this case was predicated on the presumption that rational private lenders –the main remaining source of finance– would impose the government a realistic budget constraint at all times. Regrettably, private markets proved to be less forward-looking than theory presumes, extending funds at low rates to countries with substantial amounts of debts, and pulling out suddenly at the first sign of concern. As a result, the fiscal behavior in Argentina did not exhibit a visible change with the launch of the currency board. Rather, after exhausting the proceeds from the sale or concession of state-owned physical assets, the country continued to finance its deficits through the issuance of external debt – complemented by multilateral funding– building an external exposure that no doubt contributed to the sharp reversal of capital flows at the onset of the 2001 crisis (**Figure 2**).

²¹ Underlying the use of a monetary rule to tame inflation was the view that chronic inflation was rooted in the monetary financing of chronic fiscal deficits.

Perhaps more importantly, the crisis showed that not even monetary discipline could be enforced by the monetary rule. At a time when the currency board should have worked as an automatic stabilizer (on the one hand, forcing fiscal balance in the absence of external funds; on the other, raising interest rate at the time of the currency attack), the Treasuries (both at the central and sub-national levels) started issuing small-denomination bonds that were equivalent to currency in all but name, virtually nullifying this channel (**Figure 3**).

In the context of the exchange rate policy debate, the failure of the currency board in Argentina left the bipolar view with only one hard-peg variety yet to be tested: official dollarization. However, the issuance of fiat money in an officially dollarized economy may take place, if needed, much in the same way as in Argentina in 2001. Moreover, there is no reason to presume that the external discipline imposed by external markets could be tighter in a dollarized economy than it was in the Argentine case. Indeed, there is some evidence that dollarized countries do not display more fiscal discipline than the typical developing economy (Rose and Fatás 2001) nor better economic performance in general (Edwards and Magdenzo, 2002).²²

iv. Summing up

From the previous evaluation of the available evidence, one could preliminary conclude that theory was right: pegs in developing countries reduce inflation in the

²² It has to be noted that: i) this evidence relies largely on a group of very small sub-national entities hardly representative of a typical small open economy, and that ii) official dollarization may still be the only sensible option for a few small economies with widespread and entrenched financial dollarization.

long run, at the cost of greater sensitivity to real shocks and greater output volatility. To this one could add that pegs are characterized by slower growth, possibly as a result of the incidence of real volatility on long-run economic performance (Ramey and Ramey, 1995), or due to their higher propensity to suffer currency crisis with persistent negative real effects. Despite the fact that the scope for developing countries to exploit exchange rate flexibility to their advantage remains an open question, there are reasons to believe that whatever limitation there is on this front should be taken as a challenge rather than as an insurmountable impediment.

However, even abstracting from the usual caveats of cross-country macroeconomic testing, the empirical testimony is far from conclusive, leaving ample room for more qualitative policy discussion. To this I turn next.

3. The policy debate: where do we stand?

If we survey the exchange rate debate discussions in policy circles after the Argentine collapse, the main impression one gets is the perception that pegs are *passé*. At best, they are considered inefficient short-term policy crutches for credibility-challenged governments that, like any other crutch, may lead to atrophy if used extensively. At worst, they are seen as a source of financial instability.

This backlash from the hard peg rage in the late 90s appears to have given birth to what amounts to a unipolar view in reverse, where exchange rate flexibility (combined, in more sophisticated middle-income countries, with an inflation target) is pronounced the only viable option. Nowhere is this new consensus more

homogeneous than in Latin America, where it is endorsed even by heavily financially dollarized countries like Peru.²³ But is this FIT paradigm the reflection of the evolution of developing countries and the international context in which they move, or just the new *vogue* for a region always prone to embracing facile solutions? A serious characterization of FIT, far from the simple fix-float antinomy, provides a nuanced answer to this question.

i. The FIT paradigm

In perspective, FIT appears to be the center of a new consensus built out of a number of concurrent factors: i) previous experience (most notably, the frustrating experiences with exchange rate anchors); ii) institutional developments (most notably, inflation awareness, in the form of a growing preference for autonomous central banks and balanced budgets); and iii) a concomitant decline in inflation – and dollar indexation– across the board, which, by reducing the exchange rate pass through, detracts from the effectiveness of the exchange rate as a coordination mechanism. According to the new paradigm, the old exchange rate anchor should be directly replaced by an inflation target. The rest of the model follows directly from this changeover: generous dissemination of inflation data and projections (instead of international reserves) contributes the needed transparency, while multiannual targets substitute the “tablitas” in their quest for long-run predictability.

At any rate, floating does not imply that the exchange rate does not matter. Both under a FIT policy or, more generally, in the presence of a central bank with an

²³ See Mishkin (2000), and Corbo and Schmidt-Hebbel (2001) for early surveys.

autonomous mandate for price stability, monetary policy will inevitably respond to exchange rate fluctuations that may affect future inflation in three distinct ways: i) the standard expansionary effect of depreciations on aggregate demand; ii) the pass-through to prices, iii) the balance sheet effect of currency mismatches, which countervails –and often outweighs– the expansionary effect of a depreciation.²⁴ The intensity of the response would naturally depend on the factors that determine the intensity of the underlying channels: under FIT, we should observe smoother exchange rate variations in more open economies that exhibit larger pass-throughs, or in financially dollarized countries where balance sheet effects are more influential.

This should not be mistaken with dirty regimes where the exchange rate, rather than as an argument of the inflation target, is treated as the target itself. Exchange rate policy in developing countries appears to be always under suspicion. By contrast, the motivations of developed floaters with (implicit or explicit) inflation targets that (implicitly or explicitly) use the exchange rate as an argument of their monetary rules, and respond to exchange rate shocks by adjusting the intermediate target (typically, the interest rate), are seldom questioned.²⁵ One of the possible reasons underlying this bias is the fact that, in the developing world, FIT countries often resort to direct intervention in the foreign exchange market, particularly in

²⁴ It follows that the effects of exchange rate fluctuations are likely to be asymmetric, as both the pass-through coefficient and the balance sheet effect are bound to be larger in the event of a depreciation. Therefore, even disregarding any prudential concerns associated with balance sheet effects, the monetary policy response (and, as a result, the distribution of exchange rate changes) are likely to be biased in favor of small upward adjustments.

²⁵ Perhaps the clearer example of this behavior is the use of Monetary Conditions Indicators (MCI) that establish precisely the proportion between the exchange rate change and the needed interest rate adjustment. MCIs has been used as a policy guide by inflation targeters such as Canada, New Zealand, or the U.K.. See, e.g., Freedman (2000).

the face of intense market pressure. The reasons: higher short-run exchange rate volatility, and larger pass-throughs and currency mismatches than in the typical industrial country. In this instance, rather than an interest rate defense of a targeted parity, intervention should be considered just as a substitute for monetary operations when the shock is too extreme or the interest rate transmission mechanism too weak –situations in which direct intervention is not unknown in the developed world.²⁶

Once all these provisos are taken into account, this broad characterization of FIT, despite leaving a good number of faux floats outside, is still quite vague. As such, it defines not so much a new “paradigm” as the soft center around which many developing economies (in Latin America and elsewhere) are currently gravitating in a variety of different forms. Some of the limits of this model are well known and do not deserve more than a mention here: monetary and exchange rate regimes should not be expected to induce fiscal discipline, or stable, long-run growth; rather, they create incentives for the former, and smooth out the obstacles for the latter.

However, a serious forward-looking discussion should focus on other, less trivial, more Latin-American specific issues that are still controversial. Next, I try to summarize what I believe are the main open questions that should inform the debate and the related research agenda in coming years.

²⁶ It has to be noted that the difference between the monetary impact of open market operations and unsterilized foreign exchange intervention is far less obvious than what the demonization of the latter by IT purists would lead us to believe.

ii. Unsettled issues and new directions

Among the many unsettled issues surrounding this debate, two stand up as the most critical and potentially fruitful. The first one concerns the scope to use the exchange rate countercyclically if devaluations are contractionary –and the policies contributing to enhance it. Recent years have witnessed a growing body of work linking contractionary devaluations with currency mismatches, and exploring alternative ways of undoing the latter. As a result, some Latin American countries have passed regulation limiting foreign currency intermediation, and have made progress toward the substitution of domestic debt (typically denominated in the local currency) for external debt (typically dollarized). This progress notwithstanding, because the degree of actual monetary autonomy in many of these countries remains to be tested, FIT tends to adopt a hybrid form that targets both price and financial stability.²⁷ In the particular case of emerging economies, this concern is compounded by the procyclical nature of capital flows (both international and domestic), which raises the risk of a currency collapse if monetary policy is used to buffer adverse shocks.²⁸

This state of facts have led FIT skeptics to emphasize these limitations and declare the inanity of the effort, and FIT advocates to give a blind eye to the obvious idiosyncrasies of the way the scheme is implemented in the region. A more balanced view would emphasize the fact that flexibility is a question of degree (limited exchange rate fluctuations are still possible and useful in the absence of a

²⁷ See, e.g., Armas and Grippa (2005).

²⁸ Caballero et al. (forthcoming) stress this aspect in their analysis of the Chilean monetary tightening in response to the Asian crisis, although they ultimately conclude that this defensive reaction was not fully warranted.

devastating shock), and that even the perils of full flexibility have been sometimes overstated by governments wary of sailing uncharted waters. Given the dynamic nature of the problem, overcoming the fear of floating is one of the main challenges ahead of Latin American economies in their path to graduation.

But perhaps the most intriguing new direction in the exchange rate debate in Latin America relates to an old unresolved question: Does a temporarily high real exchange rate have a persistent positive effect on the real economy? Interestingly, this mercantilist view represents the inversion of the traditional exchange rate stabilization model in developing countries, where governments struggle to sustain depressed exchange rates aimed at bringing down inflation. In a context of subdued inflation, and with the adverse effects of overvalued currencies still fresh in the memory, governments now strive to keep exchange rates artificially high as a means of fueling economic activity, either by enhancing the international competitiveness of export producers, or the domestic competitiveness of import-competing industries. At any rate, whereas before the exchange rate anchor amplified the downside of the cycle due to price rigidities, the current high-dollar policy tends to amplify the upside of the cycle –in this case, with the concomitant impact on prices.

To be sure, the issue is not unrelated with the presence of currency mismatches and procyclical portfolio flows. First, because undervalued exchange rates during expansions minimize the adjustment due during recessions –and the associated balance sheet effects. Second, because intervention is seen as the only remedy to the distortionary excess volatility induced by procyclical (and largely exogenous)

swings in capital flows.²⁹ Thus, limiting the appreciation of the local currency through the accumulation of foreign reserves could be seen as a defensive strategy to limit the country's external vulnerability.

But there are clear indications that this is only part of the story. One could make the case for the exchange rate as a blanket protection for local producers that substitute for other, more industry-specific measures that proved to be highly ineffective in the past due to weak enforcement or pervasive corruption. However, the discussion along these lines has been so far surprisingly bland. On the one hand, the orthodox view emphasizes the inadequacy of protection in general, its distortionary effects and its substantial fiscal costs,³⁰ abstracting from any potential benefit. On the other corner, the heterodox view predicates the benefits on evidence that is circumstantial at best, without factoring in the costs. At any rate, serious empirical testing of this hypothesis (whether and under what conditions a high-dollar policy delivers the desired results) is notably missing, perhaps because of the difficulty of identifying a link that is highly dependent on the context (is the high dollar subsidizing producers or simply limiting the excess cyclicality of illiquid exchange rate markets prone to speculative swings?) and that may display important lags (as investment starts to materialize only when the scheme is sufficiently credible). These obstacles only make academic research on this issue more pressing.

²⁹ González Rosada and Levy Yeyati (2005) document the strong link between emerging market borrowing costs and global exogenous factors.

³⁰ Much in the same way as the defense of a peg entailed selling dollars too cheap, a high-dollar policy entails purchasing dollars at above-market price.

4. Taking stock: Where do we go from here?

Our panoramic review of the exchange rate policy debate may be summarized as follows:

- There is a fresh consensus favoring a FIT paradigm (flexible regimes coupled with an inflation target to substitute for the lost nominal anchor) towards which most Latin American countries appear to be heading in their own idiosyncratic way.
- This paradigm is not so much a fad as the result of the experience and the evolution of the macroeconomic context in the region. Low inflation (due to painful learning and a growing respect for fiscal balance and central bank independence) reduced the urgency of a crude nominal anchor such as a peg. In turn, domestic market development (due to painful learning and a growing concern for currency mismatches) gradually increases the scope to benefit from exchange rate flexibility.
- This paradigm per se does not ensure countercyclical monetary policies, but is a first step in that direction.
- Many countries are toying with the idea of limiting cyclical (low frequency) exchange rate volatility and, in particular, using an undervalued exchange rate as a subsidy for domestic producers, a premise in need of some empirical validation.

Now that the tradeoff between inflation and real volatility appears to favor the latter, the preliminary new consensus seems to be to “float with safeguards”. Whether this policy ultimately evolves to facilitate the definitive graduation of Latin American economies, or is put to test at the next downturn of international

liquidity, it should be seen as a welcome opportunity to generate much needed policy credibility and autonomy in a favorable international context.

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Table 1. Asymmetric response (developing countries)

	Flexible	Intermediate	Peg
$[g_j^* - g_{t-1,j}]$	0.926*** (0.039)	0.974*** (0.043)	0.803*** (0.033)
? tt*pos	0.032* (0.016)	0.031* (0.018)	0.062*** (0.015)
? tt*pos_1	0.027* (0.016)	-0.006 (0.018)	0.029** (0.013)
? tt_neg	0.065** (0.027)	0.079*** (0.023)	0.119*** (0.016)
? tt_neg_1	0.013 (0.018)	0.059*** (0.022)	0.055*** (0.016)
Obs	301	326	714
pos ^b	0.059*** [7.99]	0.025 [0.92]	0.091*** [25.30]
neg ^c	0.078** [5.99]	0.138*** [20.42]	0.174*** [64.79]
neg - pos ^d	0.019 [0.24]	0.113*** [6.82]	0.083*** [7.16]

Specification: $\Delta g_{tj} = \lambda [g_j^* - g_{t-1,j}] + \sum_{s=1,2} \phi_s I(\Delta g_{t-s,j} > 0) \Delta g_{t-s,j} + \sum_{s=1,2} \varphi_s I(\Delta g_{t-s,j} < 0) \Delta g_{t-s,j} + \xi_{tj}$ where g_{tj} is the rate of growth of per capita GDP in country j in period t , $g_j^* = \alpha + \mathbf{x}_j \beta + \omega_j$ is the long-run rate of real per capita GDP growth as a function of a vector \mathbf{x}_j of long-run growth determinants (initial GDP, investment, secondary school enrollment, openness, government consumption, a peg dummy and regional dummies for Latin America, Sub-Saharan Africa and transition economies), ω_j is a terms of trade shock, and ω_j and ξ_{tj} are error terms. The equation is estimated through FGLS.

Source: Edwards and Levy Yeyati (2005).

Table 2. Regimes and Growth (developing countries)

	Period averages (1974-1999)		5-year averages (1976-2000)
	(1)	(2)	(3)
PERCFIX	-1.89** (0.77)		
LYSAVG		-1.13** (0.47)	-1.88*** (0.70)
Obs.	73	73	299
R ²	0.522	0.523	0.210

Robust standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. PERCFIX: percentage of observations classified as e peg. LYSAVG: country average of the regime index (where 1 denotes a float, 2 an intermediate, and 3 a peg). Column (3) includes period dummies. Additional controls: investment ratio, initial per capita GDP, population and population growth, secondary school enrollment, government expenditure over GDP, civil unrest, openness, regional dummies (Latin America, Sub-Saharan Africa, transition economies).

Source: Levy Yeyati and Sturzenegger (2003).

Figure 1.a. Distribution of de facto exchange rate regimes (full sample)

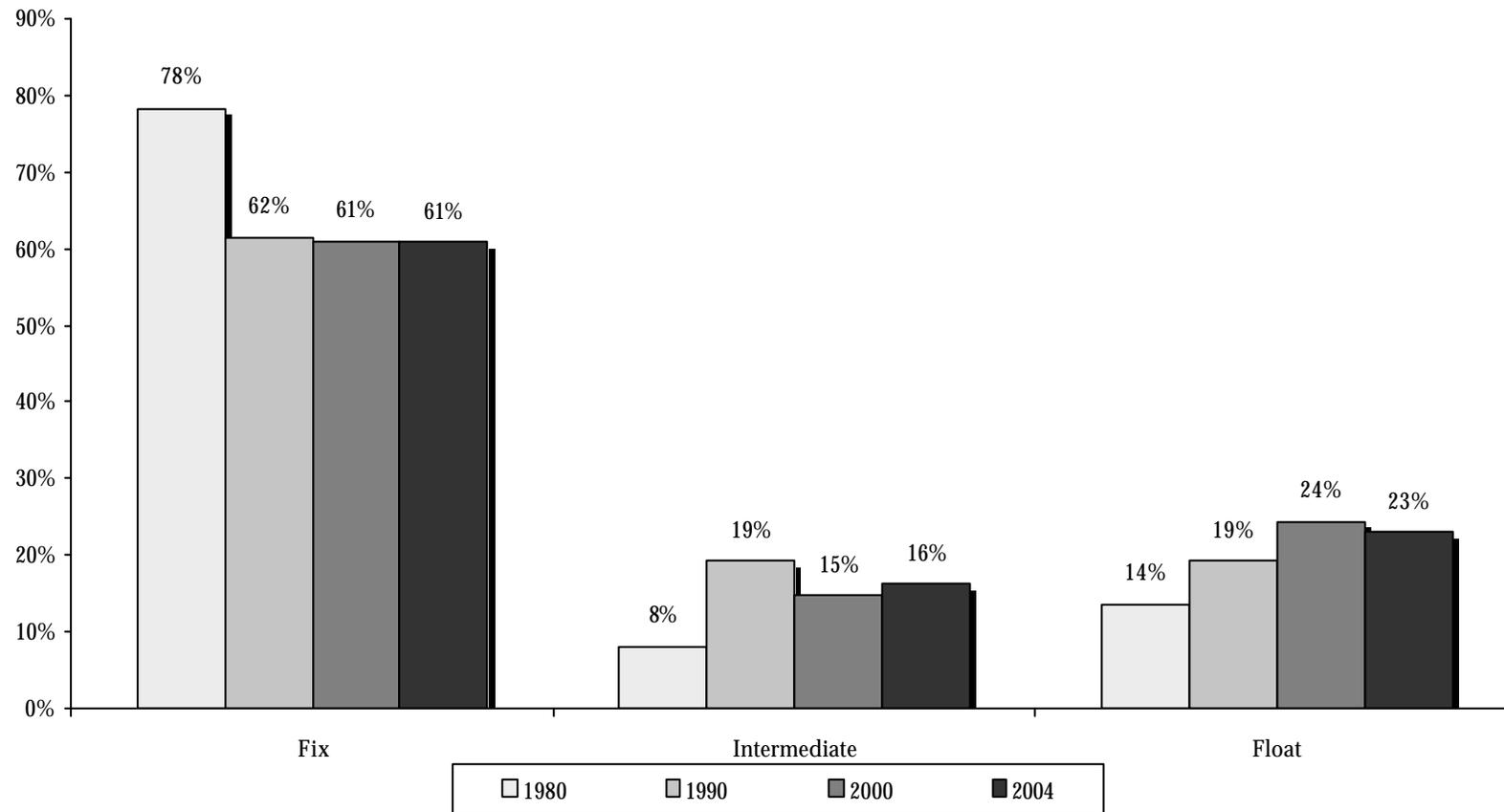


Figure 1.b. Distribution of de facto exchange rate regimes (Latin America)

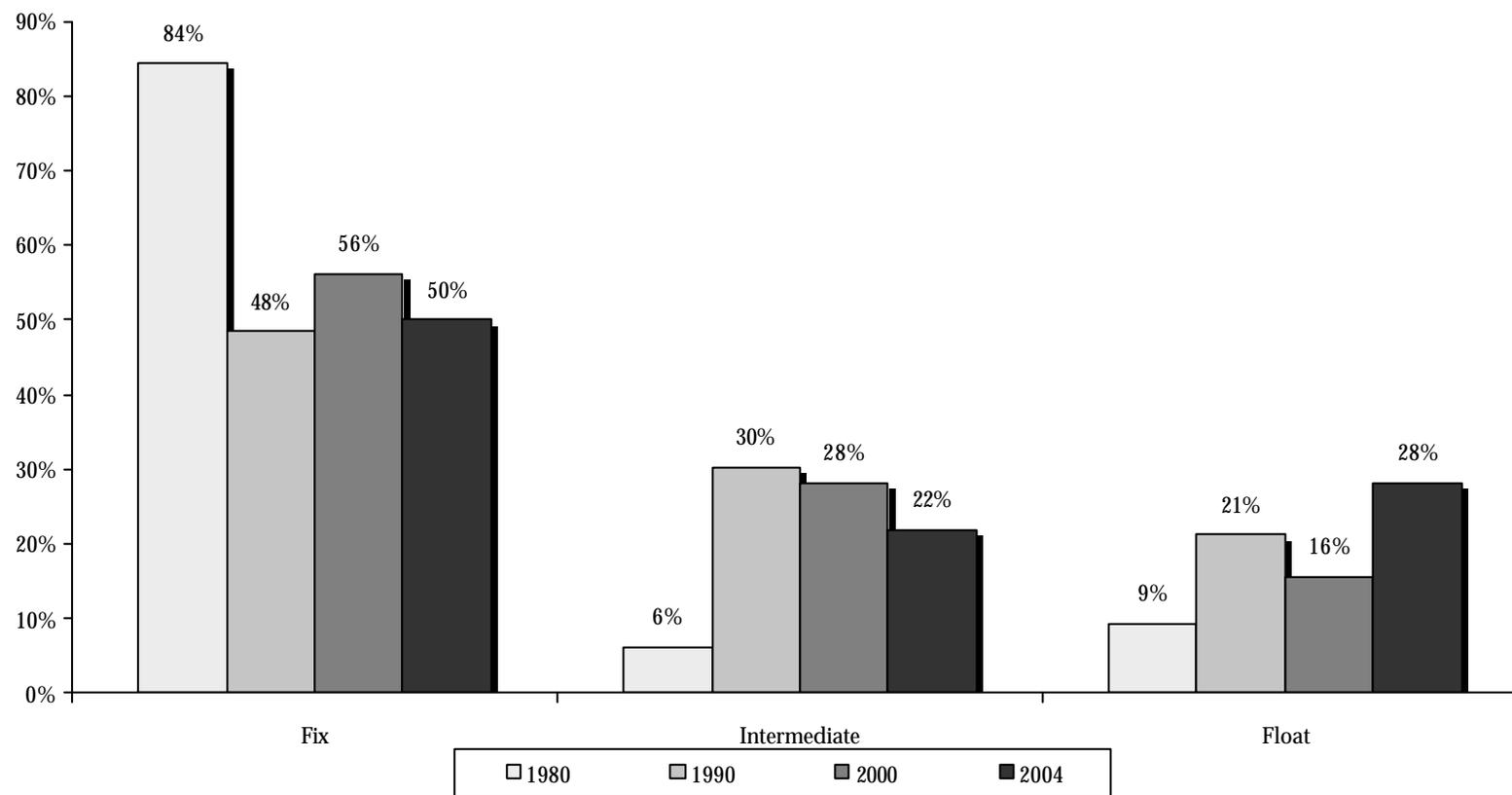


Figure 2. Argentina - Financing sources of the central government

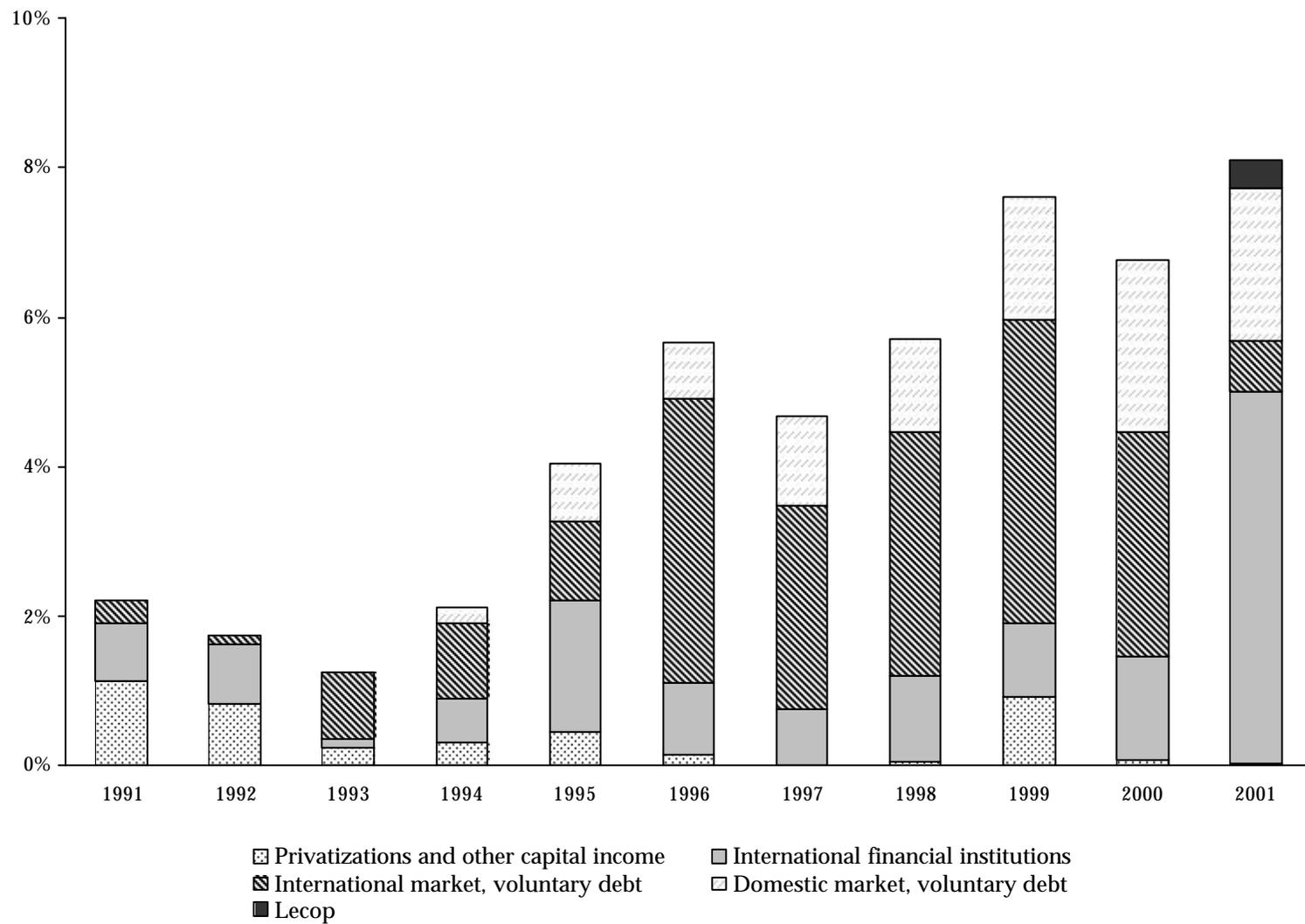


Figure 3. Hard pegs and monetary (in)discipline

