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**Exchange Rate
Arrangements
for Emerging Market
Economies**

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I. New Answers to Some Old Questions

Which is the most appropriate exchange rate arrangement for developing countries? This time-aged question has been given new urgency by the 1997-98 Asian crisis, with its offshoots in Eastern Europe and Latin America. Adjustable or crawling pegs were in place in almost every country that experienced serious difficulties over the last two years: first in Thailand, Indonesia, and Korea, then in Russia, Brazil, and Ecuador. The pressure brought by massive capital flow reversals and weakened domestic financial systems was too much to bear, even for countries that followed reasonably sound macroeconomic policies and had seemingly plentiful reserves. Pegs came crashing down almost everywhere.

The failure of adjustable or crawling pegs has caused a scramble for alternatives. Much recent thinking reflects the view that there is apparently no intermediate exchange rate regime suitable for emerging markets. Hard pegs (a fixed exchange rate that is intended to be permanent) or free floats are, allegedly, the only options.

By this logic, lack of credibility and the resulting endemically high interest rates were key factors that brought these pegs down. The way to convince skeptics then is to ensure credibility at any cost: hard pegs such as under a currency board, or even full abandonment of the domestic currency. After all, one cannot easily devalue a currency that does not exist, or one whose exchange rate is set by law. If conditions for such radical fixing are not present,

one should go to the other extreme and let the currency fluctuate freely. A third way to ensure credibility is not to make any promises about the exchange rate at all.

The starting point of this emerging consensus is sound. Revocable pegs, whether crawling, adjusting, or constant, appear indefensible in a world of high and volatile capital mobility. If this was true for rich countries with large reserves (Europe in 1991-92), it is even more true for middle-income, reserve-constrained, emerging markets.

There is much yet to be learned, however, before this new consensus can serve as a useful guide for policymaking. Its empirical foundations, for one, are weak. A good deal of the current enthusiasm for currency boards owes to the case of Argentina over a fairly brief period of time. All other experiences, except for Hong Kong's, have been too short-lived to be informative.¹ At the same time, pure free floats do not exist, since there are no central banks in the world that completely abstain from intervention in the currency market. When assessing empirically the virtues of floating, then, one has to look at mixed regimes with wide intervention bands or periodically adjustable pegs. Mexico, Peru and Chile are recent examples of this in Latin America. A quick review of their recent performance, compared to that of several currency board economies, should help shed some light on which system has performed best.

Confusion also remains about which countries should adopt which polar system. Based on the Mundell (1961) criteria for optimum currency areas, economists used to recommend fixed exchange rates to small economies wide open to international trade.² Large economies, or small economies subjected to shocks uncorrelated to those buffeting the country to whose currency they might have pegged, were advised to choose flexible rates. This prescription is not antediluvian, as it was contained, for instance, in the 1997 IMF *World Economic Outlook*. But in the midst of their respective crises there was no shortage of pundits advising Russia and Brazil (not exactly small countries) to adopt currency boards, as if short-term credibility considerations should necessarily take precedence over all other considerations.³

Finally, details of implementation are complex. What kind of dirty float (a flexible exchange rate actively influenced by government intervention in the foreign exchange market) should a country pursue? Should there be a "monitoring band," as Williamson (1998) has suggested and some countries seem to employ in practice?

Should monetary policy react systematically (either by targeting monetary aggregates or interest rates) to movements in nominal or real exchange rates? Is an inflation target the best way to endow flexible systems with a nominal anchor?

Currency boards also face serious implementation problems, such as what currency to peg to and at what rate? Pegging to the wrong anchor in a world of great volatility in the cross-rates among the three major currencies can be devastating, as the countries of Southeast Asia discovered recently. Further, how is it possible to guarantee the stability of the domestic financial system in the absence of a domestic lender of last resort?

This paper analyzes these three sets of issues. Section II reviews some empirical evidence on the recent performance of alternative exchange rate arrangements in emerging markets. Sections III and IV examine the concrete circumstances under which either polar regime should be adopted. Section V studies how to make flexibility work in practice, with special attention to inflation targets and alternative monetary policy rules. Section VI focuses on the possible role of capital controls as a complementary policy. Section VII states the paper's conclusions.

II. A Brief Look at the Evidence

Argentina's economic performance during the 1990s has been encouraging, especially when compared with the hyperinflation the country suffered in the late 1980s. However, enthusiasts of Argentina's currency board often fail to distinguish between the role of the board itself and the effect of the important structural reforms (e.g., on trade, privatization and the fiscal sector) of the last decade. Most of the spectacular turnaround of the Argentinean economy in the present decade is due to those structural reforms. The currency board can be credited with the reduction of the country's inflation to world levels (and below) since 1994, which is no minor achievement. At the same time, enthusiasts tend to overlook the fact that the particular adjustment mechanism of the currency board has been a major factor in the recessions of 1995, when GDP declined by 4%, and the likely drop of 2% to 3% expected for 1999. Similarly, Hong Kong can show relatively low inflation rates (though higher than Argentina's) and a sharp recession in 1998 and 1999, with GDP declines of 5.1% and an expected 3%.

In contrast, a number of small open economies have had successful experiences with exchange rate flexibility, often coupled with inflation targeting. Countries like Australia, New Zealand, Sweden, Israel, Mexico and Chile stand out.⁴ In these countries, moderate or low inflation has coexisted with growing degrees of flexibility. In reviewing the experience of countries experimenting

with more flexible arrangements in the early and mid-1990s, Leiderman and Bufman (1996) conclude: "Despite fears that flexibility and enhanced monetary policy autonomy would lead to uncontrolled high inflation, there has been a substantial decrease in the rate of inflation in most countries."

The more recent experience of Mexico and Chile is also encouraging. In the years since the 1994 crisis, Mexico has coupled a government-controlled money supply with a de facto dirty float. The same is true of Chile, where a wide exchange rate band exists. In both countries the central bank is legally independent. Several econometric studies show that in both Chile and Mexico policy has tightened systematically in response to expected inflation, and since the mid-1990s inflation has been trending downward.⁵

In the course of 1998, both Mexico and Chile suffered large terms-of-trade shocks, and their currencies came under pressure. Both countries allowed moderate depreciation (larger in Mexico than in Chile) which resulted in some real depreciation as well. Inflation did not get out of hand: it continued to fall in Chile, while it temporarily rose, and then has been falling again in Mexico. The result has been a soft landing (softer in Mexico than in Chile) with lower but still moderate growth and reduced current account deficits. Mexico grew 7% in 1997, 4.8% in 1998, and is forecasted to grow between 2.5% and 3% in 1999. Chile grew 7.1% in 1997, 3.5% in 1998, and will likely expand by around 0 to 0.5% this year.

This evidence is purely anecdotal and it is beyond the scope of this paper to undertake a systematic review of the performance of countries operating under alternative exchange rate regimes. However, it is possible to be a bit more systematic. Table 1 presents a summary of some stylized facts from three pairs of countries: Group 1 (G1) includes the currency boards, Argentina and Hong Kong; Group 2 (G2) comprises two small developed economies with floating rates, Australia and New Zealand; and Group 3 (G3) shows two emerging economies with flexible rates, Chile and Mexico.

Currency board countries have a clear advantage on inflation over Chile and Mexico, but not so over Australia and New Zealand. G2 central banks enjoy political independence and high professional standards, and monetary policy is oriented towards domestic price stability. In the past year, these countries have suffered a sharp decline in world export prices. Their currencies have depreciated sharply, and thereby helped offset the shock to domestic output, by

**Table 1. Hard Pegs and Flexible Rates
A Few Stylized Facts for Selected Countries**

Countries	Real GDP Growth (%)				Inflation (%)				Terms-of-Trade (% change)			
	1995	1996	1997	1998	1995	1996	1997	1998	1995	1996	1997	1998
Currency Board Countries (G1)												
Argentina	-4.0	4.8	8.6	4.2	1.6	0.1	0.3	0.9	0.3	8.1	-2.4	-3.9
Hong Kong	3.9	4.5	5.3	-5.1	7.0	6.6	5.2	2.6	-1.5	0.9	0.7	1.2
Flexible Rate Countries												
Developed (G2)												
Australia	4.1	3.7	2.8	4.9	4.6	2.6	0.3	0.9	3.7	1.3	1.9	-3.2
New Zealand	3.0	2.6	3.3	-0.7	3.8	2.3	1.2	1.3	-1.6	-0.8	-1.7	-0.5
Emerging (G3)												
Chile	10.6	7.4	7.1	3.4	8.2	6.6	6.0	4.7	14.8	-16.6	3.8	-10.5
Mexico	-6.2	5.2	7.0	4.8	52.1	27.7	15.7	18.6	-1.3	2.8	-0.1	-2.6

Sources: International Financial Statistics (IMF), 1999; JP Morgan (several issues); and national sources.

spurring production in the tradable sector. Inflation has remained modest even as the currencies have depreciated. Perhaps most importantly, all of these countries have avoided panics or runs, since the exchange rate depreciation has been gradual and without drama.⁶

In terms of GDP growth, we have already mentioned that G1 economies have experienced sharp recessions, whereas G3 economies have suffered only a deceleration of their annual growth rates (though sharp in the case of Chile). This is also the case of Australia and, to a lesser extent, of New Zealand, which suffered a mild recession in 1998. The contrast is even starker if we control for terms-of-trade changes. Chile has been the hardest hit economy of the six on this front, with a collapse of over 10% in its terms-of-trade in 1998, followed at a distance by Argentina and Australia (3.9% and 3.2% drop, respectively). Interestingly, Hong Kong's terms-of-trade actually improved in 1997, and again in 1998, thereby placing more of the blame for its sharp 1998 recession on the currency board.

A quick revision of the evidence would also show that hard pegs have performed better than revocable pegs (a-la Thailand, Korea, Russia and Brazil) during the recent crisis. But this is not enough evidence to endorse hard pegs. Several flexible rate countries appeared to have fared better than currency boards in many of the key macroeconomic variables.

III. The Pros and Cons of Hard Pegs

The increasing popularity of hard pegs stems from some of the experience discussed above. We now review the theoretical arguments behind this popularity, and ask two sets of questions: What kind of country is best served by adopting a hard peg? And what pitfalls should the adopting country strive to avoid?

Credibility

The main argument in favor of hard pegs is the need to make monetary policy credible. If credibility cannot be built at home, then it can presumably be imported by fixing the exchange rate to a hard-money country. This is what Club-Med countries⁷ attempted by pegging to the Deutschemark (DM), and what Argentina has tried with the U.S. dollar. Many theoretical and practical objections to the argument exist. Where the political costs of abandoning a peg come from and whether they are large enough to prevent unpleasant surprises is less than clear. Many an “irreversible” peg has come undone, as the European Monetary System (EMS) troubles in the early 1990s show. Yet if the political will is sufficient, and the institutions designed to express that will are robust enough, interest rate spreads and other indicators of the public’s skepticism can come down sharply and stay there. Europe in the run-up to European Economic and Monetary Union (EMU) is a good example.

The strength (and also the potential weakness) of hard pegs lies in the absence of escape clauses. It has been argued that a fixed exchange rate is an implicit contract in which the Central Bank commits to retaining the peg, unless one of more of several unspecified but painful factors kick in. If they do, devaluation need not be punished by a loss of credibility, for in devaluing the authorities have adhered to the implicit contract. When the short-term pain of defending the peg is large enough that it outweighs the long-term benefits of retaining the fixed rate regime, the country could exercise an “escape clause,” or engage in an “excusable devaluation.”

Is this a plausible view of the world? Whether “excusable devaluations” exist in emerging markets is unclear, just as there may be no “orderly devaluations” either. This is probably because the exogenous shocks that could render them so are not fully observable, or perhaps not even fully exogenous, in the sense that governments could try to manipulate economic variables to justify an abandonment of the peg. When in doubt, a weary public may justifiably choose to be skeptical.⁸

Obstfeld (1997) has argued against escape clauses in fixed exchange rates because they can open the door to multiple equilibria.⁹ The government is allowed to devalue if the situation gets too nasty, but the expectation that the government may devalue could lead the private sector to take actions (demand large wage increases and high nominal interest rates) that make the situation nasty to begin with. If the government does not devalue, it has to live with costly high real wages and real interest rates. If it does give in and devalue, it has created a self-fulfilling prophecy: devaluation takes place exclusively because agents expected it. This means governments should think long and hard before hinting that they view devaluation in some circumstances as “excusable.”

Discipline

The other important reason that leads many to advocate hard pegs is their alleged ability to induce fiscal or monetary discipline. This is a close cousin of the credibility story. Presumably, fixed rates induce more discipline because adopting lax fiscal policies must eventually lead to an exhaustion of reserves and an end to the peg. Presumably, the eventual collapse of the fixed exchange rate would imply a big political cost for the policymaker. That is to say, bad behavior today would lead to a punishment tomorrow. Fear of suffering this punishment leads the policymaker to be disciplined,

and if the deterrent is strong enough, then unsustainable fiscal policies do not occur in equilibrium.

But, as Tornell and Velasco (1998, 1999) have argued, the conventional wisdom fails to understand that a hard peg is not the only way to achieve discipline: under flexible rates, imprudent behavior (especially fiscal laxity) has costs as well. The difference is in the intertemporal distribution of these costs. Under fixed rates, unsound policies manifest themselves in falling reserves or exploding debts. Only when the situation becomes unsustainable do the costs begin to bite. Flexible rates, by contrast, allow the effects of unsound fiscal policies to manifest themselves immediately through movements in the exchange rate and the price level. All of this means that if inflation is costly for the fiscal authorities, and they discount the future heavily, then flexible rates, by forcing the costs to be paid up-front, can provide more fiscal discipline.

Recent empirical work supports this revisionist view. Tornell and Velasco (1998) and Gavin and Perotti (1997) show that in Latin America fiscal policies have been more prudent (after controlling for a host of factors) under flexible than under fixed rates. Those results were mostly for soft pegs (fixed exchange rates that can be adjusted or changed), so we are left with the question of whether hard pegs would perform any differently? The evidence in this regard is limited. Tornell and Velasco (1999) show the same for Africa, comparing the experience of francophone countries that have pegged to the franc versus the rest. Since pegs in the Communauté Financière Africaine (CFA) are an artifact of colonial rule, they are supported by a French commitment to intervene, and since currency rates have been changed only once since 1948, they could conceivably be thought of as hard. The bad news is that African countries under that regime seem to have exhibited less fiscal discipline, defined as average deficits, after controlling for a host of factors, than did the others studied.

When to Adopt a Hard Peg?

Hard pegs, then, seem to have some important (though not unambiguous) advantages, but a currency board or full dollarization is not for everyone. A short list of conditions ought to include:¹⁰

- The criteria for optimal currency areas must be satisfied. This means, among other things, that large countries are worse candidates than small countries, and that pegging to a country subject to asymmetric real shocks is likely to prove problematic.

- The bulk of the adopting country's trade should take place with the country or countries to whose currencies it plans to peg. This means that, all things being equal, Mexico or Central America are much better candidates for dollarization than Argentina, Brazil or Chile.
- The adopting country must have inflation preferences broadly similar to those of the country to which it plans to peg. This may be easily achieved in countries with a history of high inflation, which now want price stability at all costs (e.g. Argentina). It may prove trickier in countries which have never experienced full-blown hyperinflation, and where the population is less unanimous in its willingness to take pain to ensure stable prices (e.g. Ecuador, Brazil, Venezuela).
- Flexible labor markets become more essential than ever, and countries considering a hard peg are well advised to undertake labor reforms first. The argument is sometimes made (especially in Europe), that the very presence of a hard peg will create the political impetus for labor market deregulation. That may well be so, but it seems like a very risky gamble to take, especially for countries with political systems more unwieldy than Europe's.
- The banking sector must be strong, well-capitalized and well-regulated, since a hard peg prevents the local central bank from serving as a lender of last resort to domestic banks.
- Hard pegs are most necessary for countries with weak central banks and chaotic fiscal institutions. But making hard pegs work requires high-quality institutions, and a rule of law that matters in ways seldom discussed. A currency board for instance, is a commitment to adhere to a set of very strict rules governing monetary policy. It may also involve putting the exchange rate into the law, as Argentina has done. These arrangements only make sense in countries where governments adhere to their own rules and where laws cannot be changed by fiat.

Choosing the Right Currency

In a world of floating rates, pegging to one currency means floating vis-à-vis most others. This is not a problem for countries whose trade is more or less geographically concentrated, and who peg to the currency of their dominant trading partner. Otherwise, cross-

rate fluctuations can do serious damage, as East Asian economies whose currencies were pegged to the dollar discovered in 1997. The sharp appreciation of the dollar vis-à-vis the yen caused substantial appreciation in the real effective exchange rate of several East Asian countries, helping pave the way for the crisis that followed.¹¹ Of course, part of the problem followed from the fact that these countries pegged to the dollar while their trade was quite diversified.

Pegging to a basket and not to a single currency is a possible way out. In principle, at least, this could help insulate countries from cross-rate instability. But the implementation problems are many, and difficult. Under a currency board the weights used to calculate the basket would have to be public information; this is not the way in which banks have traditionally preferred to manage such baskets. There is also the need to change the weights in response to structural change. Who is to do that and according to what criteria? Discretionary manipulation of weights can easily become arbitrary even when done by independent and respected central banks, as the recent experience of Chile suggests.

If the main virtues of a currency board are simplicity, transparency and observability, moving toward a complex and ever-changing basket system may undermine the very foundations of the policy. And, of course, pegging to a basket means that pairwise exchange rates fluctuate as much as international cross rates do, and this adds risk to certain kinds of transactions. Much of the appeal of current Argentine policy comes from the constant and one-for-one exchange rate, which all Buenos Aires taxi drivers know and can brag about. A complex arrangement in which the price of the U.S. dollar fluctuated unpredictably every day might not command the same kind of support, and would almost certainly not impose the same degree of transparency upon monetary policy.

Exchange Rate Stability versus Financial Stability

In essence, a currency board severely limits the ability of the authorities to extend domestic credit. This may be good for preventing inflation, but it can be bad for bank stability, as under a currency board or the gold standard, domestic banks are left without a lender of last resort. In a world of fractional banking¹² and imperfect deposit insurance, this amounts to an invitation to self-fulfilling bank runs. A conclusion, couched in modern language, that economists have known at least since Bagehot: systems that tie

the central bank's hands and prevent it from printing money, also prevent it from coming to the rescue of banks at times of trouble. As Chang and Velasco (1998a) demonstrate, a currency board makes balance of payments crises less likely only at the price of making bank crises more likely. For emerging markets, the price of low inflation may be endemic financial instability.

Alternatively, fiscal policy may be used instead of monetary policy to help troubled banks. But since emerging markets are typically rationed at times of crisis, it is not feasible for the government simply to borrow against the present value of future tax receipts and then hand over the money to the bankers. Ready help at times of trouble requires that the fiscal authority build, via sustained surpluses, a liquid "war chest". For a country to "self-insure" its banking system in this way is, at least in theory, costly but perfectly possible. Even glossing over the political difficulties, the financial costs are large. Imagine, for example, a country with M2 equal to 66% of GDP, which keeps half that amount in time deposits in Zurich. Such deposits pay 50 basis points below the London Interbank Offered Rate (LIBOR), while domestic interest rates in the country in question (quite likely lower than the marginal product of capital) are 2.5% above LIBOR. Hence, the lower band for the net cost of holding the war chest is 1% of GDP per annum.

Can the country do better by purchasing such insurance abroad? After all, if lenders can diversify away the risk of country-specific bank runs, such insurance need not be expensive. This is presumably the logic of the Argentine policy of contracting a line of credit (for which a premium is paid annually) to be used in case of bank troubles. The idea is appealing, but not without potential difficulties. First, if there is regional or global contagion, the risk of bank runs need not be easily diversifiable for lenders. Second, the obvious potential for moral hazard makes such contracts hard to write and enforce. Third is the issue of size: press accounts put the Argentine line of credit at U.S. \$6 billion, which is less than 10% of M2. Whether larger amounts may be provided by the market at a reasonable premium is unclear.

Not everyone feels this is a problem. Dornbusch (1998) has recently written: "The counter-argument that currency boards or full dollarization sacrifice the lender of last resort function are deeply misguided... Lender of last resort can readily be rented, along with bank supervision, by requiring financial institutions to carry off-shore guarantees." But how exactly does one rent such a

lender? We saw that contingent credit lines are not without problems. A currently fashionable alternative is to encourage foreign ownership of domestic banks, hoping that equity holders abroad will serve as lenders of last resort. Again, this is probably a good idea, but a completely untested one. Will Citibank U.S. ride to the rescue every time a Latin or Asian bank in which it has a 10% equity stake gets into trouble? Perhaps, but hanging a whole financial system's health on that conjecture seems risky indeed.

Is there a Case for Dollarization?¹³

The dollar has been used widely as an alternative currency in regions with a record of macroeconomic instability, such as Latin America. We may call this unofficial dollarization: the dollar is utilized informally, sometimes illegally, as a store of wealth or in large transactions. Baliño et al (1999) report that foreign currency deposits exceeded 45% of broad money in 18 countries while they were still significant (over 16% of broad money) in 34 other countries during 1990-95. Porter and Judson (1996) estimate that 55% to 70% of the total amount of dollars issued are held by foreigners, mostly in Latin America and Russia.

Official dollarization, that is, the situation in which a country relinquishes the issue of domestic notes and coins and adopts the dollar as the national currency, is much less frequent. Only a handful of independent countries (four in total) are officially dollarized. The best-known, and the only small but not minute country among them, is Panama.¹⁴

A number of proposals for full dollarization have been floated in recent months. Schuler (1998, 1999) advocates dollarization for Hong Kong and elsewhere, while Hanke and Schuler (1999) make a similar proposal for Argentina. The Argentine government itself has announced plans to study dollarization. Recently, Calvo (1999) argued for a monetary treaty between Argentina and the United States, while Hausmann et al (1999) advocated the benefits of dollarization for Latin America. On the other hand, Alan Greenspan and Lawrence Summers have recently warned about the difficulties in the decision to dollarize, and stressed that the Federal Reserve is not ready to act as lender of last resort for other countries. Krugman (1999) has also forcefully argued against dollarization.

On the plus side, dollarization tends to make domestic inflation converge to the U.S. rate, and limits the rise of local interest rates

due to the elimination of currency risk. Of course, interest rates do not converge to U.S. levels due to country risk. The main costs of dollarization are the loss of independent monetary policy, the lack of a lender of last resort (and thus the need for additional dollar assets), and the loss of seigniorage.¹⁵

The first two issues we have discussed already, but what about the fact that dollarizing amounts to handing over seigniorage to the United States? For a developing economy under responsible monetary management (meaning a single-digit inflation rate), this can mean giving up between 1% and 2% of GDP from seigniorage. Several proposals have been put forward to share the seigniorage between the dollarized economy and the United States (e.g., Calvo, 1999), but U.S. acceptance is crucial and has so far, not been forthcoming.

The costs and benefits of dollarization also depend on initial conditions. Calvo (1999), for example, correctly argues the need to recognize that Argentina's liabilities are already highly dollarized. Baliño et al (1999) stress that dollarization of liabilities is relatively widespread in Latin America. This makes the banking system more vulnerable to exchange rate changes and complicates the use of monetary policy. Argentina, Hong Kong and others have already abdicated the bulk of their monetary independence. Hence, the costs of moving toward full dollarization would be lower than for economies with a revocable peg or a float.

Are Monetary Unions an Alternative?

Monetary unions share much with currency boards and dollarization, though important differences remain. A monetary union implies, by definition, an irrevocably fixed rate among members, but may retain flexibility vis-à-vis other currencies. This is the case of the European Union. For other regions of the world, such as Mercosur¹⁶ and NAFTA,¹⁷ currently considering this arrangement, arguments go back to the discussion of whether a region is an optimal currency area, and hence to issues of factor mobility, trade integration and similarities in economic structure.¹⁸

Eichengreen (1998) considers four essential prerequisites for a smoothly functioning monetary union: i) an independent central bank insulated from the political business cycle; ii) wage and price flexibility; iii) a strong financial sector; and iv) significant barriers to exit the union. For the first condition to be met, for example, debt and deficit ceilings must guarantee that countries will not issue

debt with the hope that there will be an inflationary bailout by the central bank, whose cost is borne by all countries. If other economic, social and political agreements are attached to the monetary arrangement, the exit costs will be higher and the currency union more credible.

The most immediate benefit of a currency area is the elimination of transaction costs associated with the exchange of currencies to conduct trade and financial exchanges. Other benefits include the greater attractiveness for foreign investment of a more integrated, larger area (as monetary union normally goes together with other forms of integration), and the possibility of a large monetary area to capture additional seigniorage.¹⁹ The costs are associated with the loss of an independent monetary policy. Whether net benefits are positive or negative is an empirical matter that needs to be judged on a case-by-case basis.

The more two countries trade among themselves the more they will value exchange rate stability. Nonetheless, differences in the production structure and the composition of exports between countries make it more likely that they will be subject to different external shocks and, thus, will need to rely on nominal exchange rate adjustments.²⁰ Also, the more diverse is a country's production base, the less likely that a sectoral shock will require inter-country adjustment and, thus, the better the country is as a candidate for a currency area.²¹

Currency unions may also have dynamic effects. Fatás (1997) argues that increased regional specialization makes cycles more pronounced, whereas increased demand linkages and intra-industry trade will lead to greater synchronization of regional cycles. Evidence indicates that higher trade integration leads to lower exchange rate variability (Bayoumi and Eichengreen, 1998), but Marsden (1992) argues that regional integration and the resulting product market integration lead to decreased market power so that labor markets become more responsive to short-term conditions. In sum, there may be a better case for currency areas ex-post than ex-ante.

IV. Exchange Rate Flexibility

Currency boards, dollarization, and monetary unions are certainly not the only way forward. The alternative is greater exchange rate flexibility. That is indeed the direction in which many emerging markets, overwhelmed by the difficulties inherent in soft pegs, have been moving. Is there a good case for flexibility?

The Basic Case for Flexibility

Milton Friedman's (1953) classical argument in favor of flexibility still holds much water: if prices move slowly, it is both faster and less costly to move the nominal exchange rate in response to a shock that requires an adjustment in the real exchange rate. The alternative is to wait until excess demand in the goods and labor market pushes nominal goods prices down, a process likely to be painful and protracted. The analogy that Friedman used is revealing, and accurate: every summer it is easier to move to daylight savings time than to coordinate large numbers of people and move all activities by an hour.

The case for flexibility is especially strong if the country in question is often buffeted by large real shocks from abroad. The logic here is once again due to Mundell (1963). If shocks to the goods markets are more prevalent than shocks to the money market, then a flexible exchange rate is preferable to a fixed rate. Of course,

foreign real variability is likely to be particularly large for exporters of primary products and/or countries highly indebted abroad (a profile that fits many emerging market countries). Indeed, the 1990s so far have produced large fluctuations in the terms-of-trade and international interest rates relevant for these countries. Note also that the preference for flexible exchange rates among countries with a heavy natural resource base extends into the OECD: Australia, Canada, New Zealand, and some of the Scandinavian countries are good examples.

These arguments in favor of exchange rate flexibility for emerging markets have recently come under attack from a number of fronts. One claim is that depreciations, like increases in the money supply, only work if they surprise the public, and of course, no government can surprise all of the public all of the time. Repeated depreciations only cause inflation, without real effects. This claim is correct, but also perfectly irrelevant. The Friedman case for flexibility certainly does not advocate attempting to use the nominal exchange rate to keep real activity away from its natural equilibrium level. On the contrary, it advocates letting the nominal exchange rate move to adjust relative prices to the new equilibrium level, after a shock has rendered the old relative prices obsolete.

Hausmann et al (1999) have recently raised a more relevant objection. They argue that the classic case may be right in theory, but wrong in practice for Latin America. One problem, in their view, lies in the prevalence of wage indexation. Understanding that nominal depreciation is unlikely to lead to real depreciation, central banks are reluctant to use it for countercyclical purposes. Another problem is the classic peso problem: in countries with a skeptical public rendered so by decades of currency debauchery, movements in the nominal exchange rate tend to be anticipated by changes in nominal interest rates, so that real rates do not fall (and may in fact rise) in response to adverse shocks. Hausmann et al (1999) test these two claims with Latin American data, and find some qualified support. Their influential conclusion is that exchange rate flexibility does not deliver much insulation or monetary policy autonomy, while lacking the credibility value of a hard peg. Currency boards or dollarization are a better option.

This revisionist view has a grain of truth, but does not generally invalidate the claim that exchange rate flexibility, if properly managed, can be stabilizing. The key, as with fixed rates, lies in having credibility. Ongoing depreciations that follow from imprudent or