

Regional Monetary Arrangements For Developing Countries

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First Draft: September 2000. This version: November 2000

1. Introduction

The last decade witnessed a marked rise in regionalism across the developing world. Trade coalitions such as Mercosur became the subject of lively debate in academia and policy circles. And the World Trade Organization has estimated that, by the beginning of the millennium, virtually every developing country had joined some regional commercial agreement.

At the same time, several countries were successively hit by crises that devastated their financial systems and forced drastic changes in the exchange rate arrangements.¹ In particular, the existence of a close link between financial crises and the collapse of currency pegs has convinced many that attempting to fix exchange rates is futile.

These two parallel developments have motivated the review of existing monetary institutions and the search for new and creative arrangements that may lead to improved stability and faster growth. So far, the debate has emphasized the choice

between two alternatives: an irrevocably fixed exchange rate, as implemented by Argentina's currency board, or, more extremely, unilateral dollarization as in Ecuador and El Salvador; and a regime of flexible exchange rates, as chosen by Mexico or Peru. But, while these two positions would seem polar extremes, they have something important in common: they are *unilateral* arrangements whose implementation would be independent of multilateral agreements of any kind.

In this paper we shall examine a third alternative: to create some form of a *regional* monetary arrangement. This possibility has been mentioned in East Asia as a way to cope with its recent financial instability; likewise, the idea of a common currency for Mercosur countries has been advanced to further trade and growth in the Southern Cone. An urgent issue facing developing countries is, therefore, to decide whether and to what extent regional monetary integration may be possible or beneficial. This paper attempts to shed light on this topic.

Section 2 reviews different kinds of monetary arrangements, with special reference to existing agreements such as the CFA zone and the Latin American Reserve Fund. One lesson from the discussion is that, for a regional agreement to make a substantial difference, it may need to evolve towards its extreme incarnation, a monetary union with a common currency. Consequently, the rest of the paper is devoted to a deeper discussion of the costs and benefits of regional monetary unions. The costs are discussed in section 3, and the benefits in section 4. Section 5 discusses the feasibility of regional monetary unions, emphasizing the potential conflicts of

¹ See Chang (1999) for a review.

interest that may emerge between prospective members. Finally, Section 6 concludes with a summary and some conclusions for policy.

2. Varieties of Regional Monetary Integration

What exactly should be understood by “regional monetary integration”? What comes to mind is some sort of agreement or treaty between a group of nations to cooperate in monetary and financial policy. But such a loose definition leaves the door open for a multitude of arrangements that can be very different from each other. And, of course, one can conceive of an infinite number of alternatives.

In practice, however, regional monetary arrangements have been few and, following Edwards (1985), can be readily classified into three big groups: regional payments agreements, agreements for balance of payments financing, and monetary unions. We shall discuss each in turn.

2.1 Regional Payments Agreements

Regional payments agreements are international mechanisms designed to facilitate payments between residents of the participating nations. The need for such agreements is easy to understand. If a resident of Peru wants to purchase some good from a resident of Colombia, the Peruvian has to find a way to pay for the good with some currency that the Colombian is willing to accept. Such a currency may be the Colombian one, or some international vehicle currency such as the US dollar. In both cases, the Peruvian is faced with the cost of obtaining a currency different from his own in order to pay for the Colombian good. While the cost may be small for an

individual transaction, it may be large in the aggregate, since in a modern economy there will typically be a need for large numbers of similar payments.

Given such a situation, two countries may reduce transactions costs by having their central banks (or a similar agent) act as clearinghouses for payments between them. Both central banks may agree to record and pay their own residents for eligible purchases from residents of the other country, thus extending credit to each other, and settle the accumulated net differences periodically, at the end of each quarter for example. Such an agreement would economize in currency flows, and the associated transactions costs, on at least two counts:

- First, if the periodic settlement of the two accounts is done in a *net* basis, meaning that transactions of equal value cancel each other, the amount of each settlement would only reflect the *difference* between accumulated sales and purchases during the settlement period. In contrast, if all transactions are paid individually, as would happen in a decentralized system, *all* sales and purchases would involve an international currency flow.
- Second, in order to pay for the bilateral trade between the two countries, the central bank of the country in deficit only needs to transfer a reserve currency *at the end* of the settlement period. In comparison, in a decentralized system each central bank would need to maintain enough international reserves to finance bilateral payments continuously during the period. Coupled with net settlement, this feature implies that each central bank can safely reduce its holdings of reserve assets.

The last fact, reducing the need to hold international reserves was the primary motivation for the establishment of a number of regional payments systems, starting with the European Payments Union lasted from 1950 to 1958. An example of a similar system for a group of developing countries is the Reciprocal Payments and Credits Agreement of the Latin American Integration Association or ALADI. It is instructive to review the ALADI case.

While the ALADI payments agreement was subscribed in 1982, ALADI itself dates back to the Montevideo Treaty of 1960, which set the agenda of creating a Latin American Free Trade area. This means, in particular, that the payments agreement was created to support the wider agenda of increased economic integration between Latin American economies, and consequently the payments agreement was assigned a somewhat subsidiary role. In terms of its functioning, the member central banks agreed to act as clearinghouses for trade related payments of each member country vis a vis the others, settling the balances only every four months. Hence, the ALADI payments system worked essentially as we described above.²

Whether or not an eligible transaction goes through the ALADI payments system is voluntary and left to decide to the parties involved. It turns out that the “popularity”

² A distinctive and noteworthy feature is that the ALADI system includes a system of guarantees for payments. In particular, there is a guarantee (the Reimbursement Guarantee) to exporters that the system will pay them the monies owed for their eligible exports, even if the importers eventually default on what they owe to the system. This feature may obviously provide distorted incentives and, therefore, has been subject to review recently.

of the system, after improving up to 1990, has decreased sharply since. This can be seen from Table 1 below.

Table 1: Usage of ALADI's payments system

Year	Amount of Operations	Intra ALADI Imports	Operations as % of Imports
1983	6.5	8.1	79.6
1984	6.8	9.1	74.2
1985	6.7	8	83.6
1986	6.7	7.7	86.6
1987	7.5	8.5	88.2
1988	8.8	10.2	86.1
1989	10.1	11.2	90.9
1990	10	12.4	80.9
1991	11.6	15.6	74.3
1992	13.8	20.1	68.4
1993	13.2	23.1	57.1
1994	11.7	28.7	40.9
1995	14	35.1	40
1996	9.6	40.4	23.8
1997	7.9	47.5	16.5
1998	5.6	45.8	12.2
1999	3.9	34.4	11.4

Source: ALADI's web page (<http://www.aladi.org>)

The last column of Table 1 reveals that the amount of transactions processed via the ALADI payments system, relative to intra ALADI imports, has fallen to just over ten percent in 1999 after reaching more than ninety percent in 1989. This reflects not only the growth in the amount of trade between ALADI countries but also a substantial reduction of operations processed through ALADI. While an in depth study of the causes of this decline is yet to be performed, four facts appear to be relevant:

- The rapid development of financial technology and the increased integration of international financial markets, which has lowered the costs of transacting with different currencies relative to the bureaucratic cost of obtaining permission to make payments through ALADI;
- The increased degree of de facto dollarization of many ALADI members which, together with the evolving penetration of international banks, implies that exporters and importers may be more likely to settle transactions with US dollars and using a foreign bank as an intermediary;
- The switch, in several ALADI countries, towards more flexible exchange rate regimes, which reduces the need to hold international reserves and, hence, the value of the ALADI payments system; and
- The fact that ALADI's payments system was created as a support mechanism to trade integration rather than an objective by itself, which implies that the system would be allowed to languish as long as the growth of intra regional trade was not disrupted.

One additional and noteworthy aspect of the evolution of ALADI's payments system, evident in Table 1, is that it apparently played no essential role in helping deal with the recent sequence of crises that hit Latin American countries. In fact, it is clear that the system's importance fell very quickly between 1994 and 1999, the period in which financial turbulence was greatest. One thing to keep in mind, however, is that ALADI's payments system was restricted to *trade related* payments. What would have been the system's performance if *capital account* related payments had been allowed for is, at this point, unclear.

Our discussion of ALADI's payments system yields a number of lessons that may be valid for similar attempts at regional integration. First, the relative value of regional payments systems may be falling over time. This is both because the need for official international reserves may be reduced as countries switch to more flexible exchange rate regimes, and because the evolution of financial technology and integration make it easier for international payments to be channeled via private institutions. Second, regional payments systems may be of little value if the reason for regional monetary integration is coping with financial instability and crises. Third, and as a consequence of the previous two, regional payments systems will have little chance of survival in the longer term unless participating governments decide to support the system as an independent goal.

2.2. Institutions for Balance of Payments Support

In a number of cases, a group of countries have set up a common pool of international reserves and, at the same time, granted each individual country the right

to borrow from the pool under specified circumstances. Such circumstances have been mostly related to temporary balance of payments problems, although it is conceivable for an agreement of this kind to allow members to borrow for longer term purposes.

The regional institutions just described are clearly patterned after the International Monetary Fund. Our leading example for development nations is the Latin American Reserve Fund (FLAR). FLAR evolved from the Andean Reserve Fund, which operated between 1978 and 1991. Its current members are Bolivia, Colombia, Ecuador, Peru, and Venezuela; in addition, Costa Rica's parliament is currently considering formal incorporation into FLAR.

At the end of 1999, FLAR's capital was US\$ 1 billion, paid with contributions of US\$ 250 million each by Colombia, Peru, and Venezuela, and of US\$ 125 million by Bolivia and Ecuador. A second source of FLAR's funds is given by demand deposits and time deposits of member central banks. FLAR has used the resources thus obtained to grant loans to financial institutions of member countries in order to support trade and, in some circumstances, to assist member central banks experiencing a need for international liquidity. But a large fraction of FLAR's resources are, however, invested in marketable securities, such as US Treasuries. This reflects that, historically, FLAR's main investment criterion has been the preservation and long run growth of its capital rather than assisting member governments in financial trouble.

From a monetary policy viewpoint, however, it is the balance of payments support role of FLAR that merits attention. In particular, recent theories of financial and

exchange rate crises emphasize that the availability of a sufficiently large “war chest” of international reserves may prevent speculative attacks on the currency or the financial system (Chang and Velasco 2000). Hence, a regional institution such as FLAR may help achieving financial stability, in principle, by increasing the size of the war chest that each individual country may have access to.

This view may not be as sanguine to FLAR and related arrangements once it is recognized that the gains from FLAR depend on the existence of economies of scale in the following sense. A member of FLAR, such as Colombia, may have access to more dollars than what it had itself put into FLAR’s common pool only if, at the same time, there is some other member that has less dollars available to it than its share. In other words, it cannot be the case that all members have simultaneous access to more than their respective shares of FLAR’s resources. This is an important qualification to FLAR’s role, given that recent crises in emerging markets have been characterized by “contagion.” However, to the extent that, in a crisis, contagion is less than complete across FLAR members, some scale economies may remain and, hence, FLAR may still play an stabilizing role.

A related point is that, by pooling the resources of its members, FLAR or a similar institution may have better access to foreign creditors than if its members had acted individually. In such a case, the existence of FLAR would also help reducing financial instability.

While the preceding discussion suggests that FLAR may have played a stabilizing role, the question remains of whether FLAR can play such a role effectively given the size of its resources. And it seems that the answer, at least so far, has been negative.

This is because the same theories that imply that a war chest of international reserves may prevent crises also imply that that chest has to be sufficient to cover the potential short term net liabilities of the financial system. In practice, this means that the war chest may have to be as large as M2 and, from this perspective, the current size of FLAR seems far from enough. In fact, the role of FLAR in providing its members with international liquidity assistance has been limited to a 1998 loan of US\$ 411 millions to Ecuador and a 1999 very short term loan of US\$ 125 million to Colombia coupled, in the latter case, with the extension of a US\$ 375 million contingent credit facility. While both cases of assistance must have helped to some degree, the amounts involved were too small, especially in the Colombian episode, to have made much of a difference.

Expanding the effective size of FLAR may be difficult, particularly in contrast with institutions, such as the IMF, that include advanced countries as members. This is because FLAR member central banks cannot produce convertible currencies on demand. Hence an implicit promise that one of the members will have access to enough international liquidity to transfer to FLAR in case of need is unfeasible. In contrast, the analogous promise that the government of the US or other advanced countries will grant enough international currency to shore up IMF's operations if needed is technically feasible, if not already implicitly in place.

What are the lessons that can be drawn from reviewing FLAR's experience? We see that, in theory, regional arrangements for balance of payments financing may be helpful in dealing with financial instability, in particular to the extent that international contagion is not a strong problem. However, to be effective, such

agreements must have access to substantial amounts of international liquidity. And the cost of financing those amounts remains a major obstacle.

2.3. Regional Monetary Unions

The idea of regional currencies has received increasing attention in developing countries, in particular following Europe's lead with the establishment of the Euro as its single currency. Ultimately, a monetary union would involve the establishment of a common central bank that would issue a common currency and implement a single monetary and exchange rate policy for all members of the union. Presumably, the common central bank may also take other functions that have traditionally been assigned to central banks, such as serving as a lender of last resort for financial entities of union countries and, perhaps, providing clearinghouse services for the region.

The key example of a monetary union in developing countries is the CFA franc zone, which encompasses fourteen African countries. Those countries are former French colonies and are grouped into two different zones, one West African and the other Central African, each with its own central bank. The currency for both zones is, however, the same CFA franc. The CFA franc was created in 1948 and its value was fixed at 50 CFA francs per French franc until 1994, when it changed to 100 CFA francs per French franc.

The *modus operandi* of the CFA franc zone and its ties to the French central bank are key. Convertibility of the CFA franc is guaranteed by the fact that zone members are given unlimited overdraft facilities at the French treasury, provided they keep at

least sixty five percent of their gross foreign exchange reserves in a Treasury deposit. This implies that the French government has implicitly agreed to take the role of lender of last resort in the CFA zone. This feature may help explaining why financial crises have not been as prevalent in Africa as in other emerging regions, although Africa's relative poverty and its degree of financial development may also have been relevant.

A second important feature of the CFA franc zone is its decision to peg its value to the French franc. This implies, in particular, that the competitiveness of CFA zone countries *vis a vis* France may deteriorate if African costs of production rise relative to French costs. In addition, competitiveness will also be hurt *vis a vis* countries other than France if the French franc appreciates against those countries' monies. In fact, the International Monetary Fund (1998) has argued that the 1994 devaluation of the CFA franc was ultimately caused by a several real appreciation between 1985 and 1993, which resulted in a severe growth slowdown and large current account deficits. The CFA real appreciation was, in turn, caused by an increase in labor costs, adverse terms of trade shocks, and a nominal appreciation of the French franc against the US dollar.

A final noteworthy aspect of the CFA franc zone experience is that, in spite of monetary integration, the long term economic growth performance of member countries has not been outstanding. As an illustration, note that per capita GDP growth in the West African subzone was a negative three percent between 1990 and 1993, and a meager 1.8 percent between 1994 and 1997; the respective numbers for all developing countries are 3.4 percent and 4.3 percent respectively (IMF 1998).

This reflects both that the ratio of investment to GDP remains low compared with other developing regions,³ and that members trade relatively little between them.⁴ The last fact can be explained by the persistence of high tariff and nontariff barriers to international trade, although efforts at trade liberalization have taken center stage in recent years.

The CFA franc zone experience thus yields at least three lessons. First, a regional monetary union may indeed help deliver long periods of financial and exchange rate stability: the fact that the CFA franc had to be drastically devalued in 1994 should not obscure the fact that the parity was fixed for more than 45 years. Second, pegging the exchange rate between a regional currency and countries outside the region, as in the case of the CFA franc against the French franc, may invite trouble. And finally, a regional monetary union may fail deliver faster growth and even an increased amount of intraregional trade.

2.4. Lessons from existing experiences

Our review of the different kinds of regional monetary arrangements strongly suggests that, from a macroeconomic viewpoint, the importance of regional payments systems and of regional funds for balance of payments support is likely to decrease over time. This is the case, in particular, for regional payments systems, given the

³ The ratio of private investment to GDP in the West Africa subzone was only 10.1 percent in 1994-97, compared with 16.6 for the average developing country in the same period (IMF 1998).

⁴ In the West African subzone, intraregional exports in 1996 reached only 9.1 percent of total exports. For European Union countries, the respective figure is 61.2 percent (IMF 1998).

increased integration of international financial markets and the development of financial technologies, both of which have the consequence of reducing transactions costs associated with international payments. Regional funds for balance of payments support may help prevent crises, but the importance of international contagion (itself derived from the financial integration) and the size of the international liquidity that would be necessary seem formidable obstacles.

Regional currencies may offer a more promising alternative for developing countries attempting monetary integration. As we have seen in the example of the CFA franc zone, a common currency may deliver exchange rate stability for long periods of time. This fact, and the belief that some of the shortcomings of the CFA franc zone may be caused by that zone's particularities, has been the reason why monetary unions are receiving increased attention. It is revealing, in particular, that FLAR economists have recently argued that FLAR should aim to become a "Latin American Monetary Fund" (FLAR 2000). For all of these reasons, in the rest of the paper we restrict focus to the possibilities associated with regional monetary unions.

3. Regional Monetary Unions: The Obstacles

There is a vast literature on the implications of supranational currencies, much of it derived from the seminal work of Robert Mundell (1961). Most existing studies have (implicitly or explicitly) focused on a world of only two countries considering a monetary union. There are relatively few works that focus on the implications of regional currencies in the context of a many country world. In spite of this, we can extract a number of implications that are relevant to our concerns. We now turn to

such implications, starting with the possible costs of establishing a common currency.

3.1 Criteria for Optimal Currency Areas

The traditional wisdom about the desirability of a supranational currency was first laid out by Mundell (1961) and has come to be known as the *theory of optimum currency areas*. Mundell argued that a group of countries would benefit from adopting a single currency because of the reduction of transactions costs in international trade. On the other hand, each country would give up its ability to alter its bilateral exchange rate vis a vis the other members of the monetary union. This would involve a welfare cost to the extent that the socially optimal response to economic disturbances or shocks may require a relative price adjustment best achieved via an exchange rate change.

Mundell's logic suggests a natural way to assess the costs of giving up sovereign currencies in exchange for a single one: the need for exchange rate adjustments between two countries must be less when the countries are systematically hit by the same shocks. From this perspective, therefore, a group of countries is a good candidate for a monetary union if the correlation between the disturbances affecting their economies is strong and positive. If such a correlation is small or negative, however, the case for a common currency is harder to make.

In practice, exploiting Mundell's criterion to identify regions that may be ripe for monetary unification is difficult because economic shocks are not directly observable and can be measured only under strong assumptions. However, there exist some

important attempts at tackling this issue, notably the work of Bayoumi and Eichengreen (1994). Bayoumi and Eichengreen examined time series macroeconomic data for 39 countries during the period 1969-89 and, exploiting sophisticated econometric tools, estimated the series of shocks to aggregate demand and aggregate supply affecting each country. Given these series, Bayoumi and Eichengreen computed the correlations between the shocks affecting each pair of countries in Asia, Latin America, and Europe.

Table 2 reproduces Bayoumi and Eichengreen's results for Latin America. Each entry of the table is the estimated correlation between the aggregate disturbances in the row and column countries: entries above the diagonal refer to demand correlations, while those below the diagonal refer to supply correlations. Hence, for example, the southwestern most number, 0.23, is the correlation between supply shocks in Mexico and Chile.

Table 2: Correlations of Aggregate Disturbances in Latin America

	Mex	Col	Ven	Ecu	Per	Bra	Bol	Par	Uru	Arg	Chi
Mexico	1	-0.27	0.2	-0.21	0.5	0.27	0.06	0.23	-0.01	0.08	0.06
Colombia	0.25	1	0.29	0.24	-0.33	0.08	-0.02	0.39	0.07	-0.08	0.21
Venezuela	-0.42	0.15	1	0.61	0.05	0.7	-0.2	0.5	-0.26	0.35	0.37
Ecuador	0.27	0.2	0.36	1	-0.09	0.52	-0.19	0.13	-0.45	0.29	0.37
Peru	0.37	0.07	0.1	0.28	1	0.35	0.18	-0.04	0.25	0.35	-0.26
Brazil	-0.08	0.07	0.13	0.4	0.38	1	0.02	0.38	0.24	0.15	0.11
Bolivia	0.65	0.18	0	0.29	0.54	0.17	1	-0.18	-0.13	0.01	0.26
Paraguay	0.37	0.06	0.12	-0.07	0.16	0.22	0.39	1	0.08	0.33	0.37
Uruguay	-0.26	-0.35	0.05	-0.21	0.01	-0.06	-0.2	-0.08	1	-0.41	-0.24
Argentina	-0.18	0.1	0.27	-0.01	0.36	0.34	0.06	0.06	-0.48	1	0.05
Chile	0.23	0.09	-0.33	-0.41	0.19	-0.23	0.17	0.21	-0.33	0.21	1

Entries above (resp. below) the diagonal denote demand (resp. supply) correlations. Source: Bayoumi and Eichengreen (1994)

Recall that application of the Mundellian approach requires one to how large a correlation must be in order to be considered “strong enough.” Fortunately, Bayoumi and Eichengreen provide the answer: statistically positive correlations are those that are 0.39 or more, and are marked with bold characters in Table 2.

From inspection, it is apparent that aggregate shocks are not strongly correlated in Latin American countries. This is also the conclusion of Bayoumi and Eichengreen.

Further, they note that:

All [of the estimations] point toward three economic groupings that constitute plausible monetary unions: a Northern European bloc made up of Belgium, Denmark, France, Germany, and the Netherlands; a Northeast Asian bloc comprised of Japan, Korea, and Taiwan; and a Southeastern Asian area made up of Hong Kong, Indonesia, Malaysia, Singapore, and possibly Thailand. (Bayoumi and Eichengreen 1994, page 29)

It is notable that the only emerging markets region where the Mundellian criteria would suggest a monetary union is that group of Asian countries most affected by the 1997-98 financial crisis. This finding provides ammunition to those that have

advocated a common currency for those countries. In contrast, there is little support for a common currency for Mercosur, or for other possible combination of Latin American countries.

3.2.The relevance (or irrelevance) of other arguments against fixed exchange rates

A regional currency is an irrevocable commitment to fixing the bilateral exchange rates between the countries conforming the monetary union. One must, however, be careful when adapting existing arguments against fixed exchange rates to assess the costs of a regional currency. This is because, with a regional currency, exchange rates are fixed (more precisely, they disappear) *within* the region, but the exchange rate between the common currency and currencies of countries *outside* the region need *not* be fixed.

A common and powerful criticism of fixed exchange rates is that a central bank cannot fix the exchange rate and, at the same time, serve as an effective lender of last resort of its financial institutions (Chang and Velasco 2000). This is because, in order to prevent financial crises, a lender of last resort must be able to funnel liquidity assistance on short notice to banks and other financial institutions in trouble. This requirement may often be satisfied by the central bank, which can create credit just by printing domestic currency. But the printing of money may, in turn, conflict with a commitment to fix the exchange rate; recognizing the conflict, speculators will successfully attack the exchange rate peg.

It is important, however, to recognize that the preceding argument need not apply to a regional currency union, if the common currency is *not* bound to keep a fixed parity against international vehicle currencies such as the US dollar or the Euro. In such a case, the regional central bank can stand ready to assist financial institutions experiencing a crisis without worrying about the exchange rate implications of liquidity assistance. But that stance can deter speculative attacks from happening, as shown recently by Chang and Velasco (2000).⁵

A regional currency union would also be immune to the criticism, raised against current proposals for official dollarization in Argentina and elsewhere, that the revenues from money creation (known as seigniorage) would be captured by the US Federal Reserve. This is indeed the case with dollarization since seigniorage is collected by the issuer of high powered money. But, in a currency union, it would be the regional central bank that would print the regional currency and, hence, appropriate seigniorage revenue. The remaining issue would be the relatively minor one of how to divide seigniorage revenues among the members of the union.

Finally, even the political and cultural aspects of a regional currency may be advantageous relative to unilateral dollarization or fixed exchange rates. It has been argued, for example, that currencies are national symbols, and hence dollarization would be costly in terms of national pride and self respect. Economists usually dismiss arguments of this kind, perhaps of the lack of adequate analytical tools to

⁵ Note that the CFA franc zone may be immune to this problem, even if it has chosen to keep a fixed parity against the French franc. This is because, as noted earlier, the French Treasury is committed to act as the lender of last resort for CFA union countries.

understand them. But one does not need to take sides on the issue to observe that a regional currency will not be as politically disruptive as dollarization, specially if national governments succeed at convincing their citizens that it involves not the loss of a national symbol but the gain of a regional one.

4. Regional Monetary Unions: The Benefits

Our discussion of the possible costs of regional monetary unions may have been somewhat discouraging, as we showed that there is little evidence that the costs may be small except for a bloc of Southeast Asian countries. But a regional currency may still be worth it, if its creation would result in important gains. Accordingly, now we turn to what such gains may be.

4.1. The Effect of a Common Currency on Policy Discipline

One of the most compelling arguments in favor of monetary union in Europe, as well as of dollarization in Ecuador, Argentina, and other Latin American countries, has been that the elimination of a national currency in favor of, say, the Euro or the US dollar would allow some countries to import the monetary policy discipline of the Deutsche Bank or the Federal Reserve. The contention is that some governments are so prone to monetary or fiscal excesses that they would be better off if their policy levers were turned over to a more responsible partner.

The discipline argument works in theory, but it provides at best weak support for common currencies for developing economies. There are many reasons why this is so:

- In the last decade, fiscal imbalances and rates of inflation came down substantially in most developing countries. At the same time, the developing world witnessed a shift towards more flexible exchange rate regimes. These two facts imply that achieving macroeconomic discipline was not necessarily coupled with surrendering the exchange rate as a policy adjustment tool;
- In theory, the argument works for countries with “irresponsible” policymakers that associate to “partner” countries that can guarantee monetary policy discipline. The obvious examples were Italy and other Mediterranean countries in Europe that, in joining the European monetary union, sought to benefit from the discipline of the Deutsche Bank. But this means that a group of developing countries may benefit from the disciplinary effect of a monetary union on policy only if one of them can be the “enforcer” of discipline, a condition that may not be satisfied in some cases such as Mercosur. In addition, the discipline argument clearly implies that, instead of creating a regional currency, developing economies may be better off by adopting the US dollar or the Euro.
- Finally, there is little evidence that the discipline argument is important in practice. In particular, on the basis of a study of over 180 countries, Jeffrey Frankel and Andrew Rose recently stated: “Apparently currency union in and of itself does not raise output by e.g. improving credibility and monetary stability.” (Frankel and Rose 2000, page 15).

4.2. Monetary Unions and the Volume of Trade

The “obvious” advantage of a currency common to a group of countries is that it reduces costs associated with international transactions, thus enhancing international trade. This was, indeed, the main benefit that Mundell (1961) identified as pushing towards a single currency world. Until very recently, however, such savings were considered to be quantitatively insignificant. In the transition towards the Euro, for example, some studies calculated the savings to be in the order of one quarter of one percent of European output, and even those estimates were criticized as too optimistic. This impression was reinforced by the observation that, as we noted earlier, countries in the CFA franc zone trade relatively little among themselves.

However, recent empirical work, in particular that of Jeffrey Frankel and Andrew Rose (2000), implies that monetary unions may have a greater impact on trade than previously believed. Frankel and Rose examined a data set of 186 countries observed every five years between 1970 and 1995. Hence their data included almost 8000 observations.

Frankel and Rose then proceeded to estimate a statistical model approximating the volume of trade between two countries as a function of a number of explanatory variables such as geographical distance, country incomes, the existence of trading agreements between them and, most relevant to our discussion, the membership in a monetary union. Their results are striking: other things the same, two countries that share a common currency trade three times as much as two countries whose currencies are independent of each other. Moreover, the empirical evidence also shows that such an effect is separate from the existence of a trade agreement between the two countries in question. Finally, Frankel and Rose show that the effect on

bilateral trade does not come at the expense of trade with third countries; in other words, a common currency promotes overall openness.

Frankel and Rose's results are thus strongly supportive of the view that regional currencies would provide a significant boost to trade among developing countries. And, since it is universally accepted that international trade is in turn conducive to economic growth, there is the strong presumption that regional currencies would result in higher incomes and welfare. Indeed, Frankel and Rose (2000, page 1) estimate that "every one percent increase in trade (relative to GDP) raises income per capita by roughly one third of one percent over twenty years." Combining this finding with their previous one on the effect of currency unions on trade, Frankel and Rose state that a currency union increases output, on average, by about four percent.

Two caveats must be mentioned. The first is that Frankel and Rose's empirical evidence is rather recent, and as such its validity is still to be confirmed by subsequent studies. It must be noted, though, that Frankel and Rose's work is already very detailed and fairly exhaustive, in particular given the availability of data.

The second caveat may be more important for our purposes. Frankel and Rose find that the effect of a monetary union on a country's trade is "stronger if the partner is one with whom one trades" (page 17). This implies that the option of adopting a currency common to other developing economies may not be, for some countries, not as beneficial as adopting the US dollar or the Euro. Indeed, Frankel and Rose (2000) place special emphasis on the benefits to each country of joining a dollar bloc or a Euro bloc.

5. The Feasibility of Regional Monetary Unions

Even if it is decided that a monetary union is desirable from the viewpoint of a group of developing countries, its creation may be problematic if it leads to a conflict between prospective participants. Such a possibility may induce some countries to look for a solution that they can implement on their own. Indeed, one of the attractions of current proposals for dollarization as in Ecuador and El Salvador is that a country can may it happen on its own, without the need to engage in perhaps protracted and painful negotiations with neighbors.

What are the conflicts that prospective members of a potential monetary union may face? The recent example of the European Monetary Union (EMU) suggests at least three. The first one is how to distribute the revenue from creating the union's currency, or seigniorage, that would be collected by the common central bank. Creating a monetary union would impose no restrictions on how the union's seigniorage can be allocated to different countries. One alternative may be to distribute seigniorage in proportion to economic size, however defined. But it may also be the case that the poorer members of a union demand more than their proportional share, in order to help reduce wealth disparity.

The significance of seigniorage distribution may be more political than economic. In the EMU case, there was quite a bit of discussion about whether and how EMU should employ its resources, including seigniorage, to subsidize its poorer members. On the other hand, the amount of seigniorage collected in the EMU case was

expected to be rather small, as the nascent European Central was designed to inherit the toughness of the German Deutsche Bank.

This leads to a second source of potential disagreement between potential participants of a union: the objectives to be assigned to the common central bank. Two aspects of those objectives are particularly important and controversial: how tough the central bank should be in maintaining a stable price level, even at the possible cost of less economic growth and more unemployment; and how generous the central bank should be in providing last resort funds for financial institutions in trouble. Disagreement is likely because there is no consensus in the economic profession about the answers to these questions. In addition, even when there is agreement on the economy works along these dimensions, it is often the case that what is desirable for one nation may not be the best strategy for its neighbor. Consider, for example, the current position of Argentina and Brazil with respect to devaluation. That the Brazilians were inclined to accept a devaluation of the real while Argentina has defended the peso to the end may be due, to a large extent, to the fact that Brazil is much more reliant on international trade than Argentina, so that a devaluation there would be expected to provide a much stronger boost to the economy. It is not hard to see that, if Argentina and Brazil had had common currency in recent years, a conflict would have emerged as to whether to devalue it against the US dollar.

The last source of potential conflict, which is closely related to the previous one, is whether a successful establishment of a monetary union would require supranational restrictions on *fiscal* debts and deficits. It may sound paradoxical that a

monetary union may call for supranational norms on the *fiscal* side. However, the paradox disappears if one accepts some economic theories that predict that a monetary union may in fact provide incentives for lax fiscal behavior (Hallett, Hutchinson, and Jensen 1999). This was a major issue for the EMU, which at the end decided to require that national budgets be balanced in the medium run, providing for steep fines to deviant nations. But such a resolution, in the EMU case, came after a long and intense debate, and even today the issue remains controversial.

It is not hard to think of other sources of potential conflict between a prospective union's members. Our point here, though, is twofold. First, even if a regional monetary union can be shown to result in net gains for a region as a whole, its creation may be delayed (or worse, it may never take place) until a number of disagreements are resolved. Second, such disagreements may be identifiable in advance. Many of them are well known by economists and, perhaps more importantly, they have emerged in practice. This means that governments attempting to establish a common central bank may take appropriate steps to prepare for and minimize the costs of the inevitable negotiations that would be necessary.

6. Conclusions

We have reviewed theory and some actual experience related to the prospects for regional monetary arrangements in the developing world. We saw that existing regional payments arrangements and cooperative agreements for balance of payments financing have not been significant in economic terms, and that their survival is in question, particularly in light of the increased integration of financial markets and

advances in payments technology. Regional monetary unions offer more of a promise, and hence they deserve special attention.

We reviewed evidence suggesting that the net benefits of regional currencies are decidedly mixed. The study of the economic disturbances affecting developing countries shows that, with the exception of countries in Southeast Asia, cross country correlations tend to be low among developing countries. Hence giving up exchange rate management may be a dear price to pay for the establishment of common currencies. On the other hand, there is evidence that the benefits of common currencies, and in particular their beneficial impact on trade among developing countries, may also be large.

For those groups of developing countries that are considering a monetary union, our study identifies two important questions that have yet to be settled. The first is whether the (presumably large) costs of a regional currency are justified by its (also presumably large) benefits. The second question is whether those countries would be better off with a regional currency than by adopting a major currency such as the US dollar or the euro.

Our review suggests that regional currencies are likely to be good for developing countries, in particular because of their strong effect on intraregional trade. In particular, existing evidence implies regional currencies may be superior to the existence of independent sovereign currencies. However, joining a US dollar bloc or the Euro bloc may be an even better alternative. In view of these findings, which should be considered as preliminary given the state of knowledge on the subject, developing country governments may want to adopt one of two positions. One is to

wait for further evidence to decide whether to push for regional solutions or to seek associations with major currencies. The other is to push for regional currencies now since, even if they may not be the best available option, they are still probably welfare improving. The latter option may be preferable if the coordination of policies between developing country governments is easier and faster to achieve than dialogues involving both advanced and emerging nations.

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