

Common currency and economic integration in Mercosul

Abstract: Latin America has a long history of attempts to achieve regional integration, yet success has been modest. This paper contends that this is essentially due not so much to protectionist practices in the various countries, but to the lack of a common currency or, at least, of a tightly managed exchange rate band. We reviewed the optimum currency area criteria that indicate it is prudent to increase economic integration before attempting to establish exchange rates coordination. It seems fair to say that diminishing exchange rate instability could encourage trade and investment flows across Latin American economies. We also performed a very simplified exercise to understand how feasible efforts would be between policymakers in two large economies (Brazil and Argentina) to achieve exchange rate parity stability and step toward adopting a common currency.

Key words: common currency, exchange rate, Mercosul (Southern Cone Common Market).

Latin America has a long history of attempts to achieve regional integration, yet success has been modest. The only experience that may be credited a certain success is Mercosul (Southern Cone Common Market), but it is limited. This paper contends that this is essentially due not so much to protectionist practices in the various countries, but to the absence of a common exchange rate or, in other words, the lack of a common currency or, at least, of a tightly managed exchange rate band. For instance, to illustrate simply with trade integration of two countries, if in one country a good is protected with a 25 percent tariff and its currency appreciates 20 percent, the effective tariff will be zero, taking into consideration the exchange rate variation. Thus, the huge relative instability of the vari-

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ous exchange rates makes tariffs meaningless and represents a major obstacle to increased trade within the region. The goal of a common currency seems to many too demanding to achieve and thus distant, but this paper argues that it would not be so difficult to reach an agreement on this subject. This could begin with agreement on a band that, after few years, would evolve into adoption of a common currency. Our assumption is that, in economic engineering problems such as economic integration, there are times when one must either chance a leap ahead or concede defeat and fall back. If the leap ahead is not as difficult as most imagine, it will be the obvious alternative to follow.

To discuss this problem, we present some selected stylized facts that could be helpful in understanding the suitability of the adoption of an exchange rate fluctuation band as a step toward a common regional currency. As we show, there is a clear correlation not only between relative appreciations and trade-balance deficits or surpluses but also between exchange rate instability and trade volume. We review past discussions of the subject in the region and discuss the necessary conditions for the establishment of a monetary band and its subsequent evolution into a common currency. We then concentrate on the exchange rate arrangements in most Latin American economies and show that after a long history of divergence, the economies converged to allowing floating exchange rates. Then we discuss how to arrive at the basic exchange rates that would provide the basis for the new currency, and how countries should manage their exchange rates to keep them within the band while the new currency is not actually created. We offer a discussion in broad strokes of the realistic and viable characteristics of a common currency and of how the problems that might arise from it should be confronted and possibly resolved.

Throughout this paper, we support the idea that common currency can encourage economic integration, which is converse to the recommended policy of the conventional optimal currency area approach. We are suggesting that in line with the experience in the European Union, because monetary and fiscal policies have also been much more credible and because of the region's converging exchange rate arrangements.

Would Mercosul economies adopt a common currency?

Stylized facts

The balance of advantages and disadvantages of each exchange rate regime can be translated into Robert Mundell's criteria for an optimum currency area (OCA), as adapted by textbook discussions about the

convenience of pegging local currencies *versus* letting them float. As the degree of economic integration with the rest of the world increases, so do the benefits of fixed exchange rates, whereas the advantages of flexible exchange rates tend to fall. This happens because of larger potential gains in terms of lower transaction costs and currency risks, higher inflationary credibility and heavier weight of nominal anchor via hard pegs, and lower losses derived from the loss of monetary policy. According to this approach, full capital mobility implies that markets avail themselves of arbitrage or speculative opportunities whenever there is some misalignment between active monetary and exchange rate policies. Therefore, one of these has to be given up—that is, one policy has to follow the other.

As in Frankel (1999), it is possible to have something like “half” monetary independence and “half” discretionary exchange rate policy. Bresser-Pereira (2004), in turn, rejects the “fix or float” or bipolar alternative, and says that the realistic option is to “manage” the exchange rate within the context a floating regime. As long as boundaries of coherence (alignment) among policy instruments and targets continue to be respected, a mix of monetary and exchange rate policies can be (softly or loosely) pursued. Until 1999, Chile combined its inflation-targeting monetary regime with broad exchange rate bands. Most countries do not hesitate to manage or influence their exchange rate while keeping it floating. The “dirty float” concept is just a biased valorative concept (“dirty”) to designate a common practice.

The main drawback in the conventional wisdom of most analyses on exchange rate regimes relative to the adoption of a common currency originates in the narrow cost–benefit analysis. In McKinnon (1963) and Mundell (1961), if the degree of factor mobility between regions within a country or between countries is low, monetary union is undesirable. Economies with diversified industrial and export structures are expected to reap the benefits of a fixed exchange rate. Such criteria for the adoption of a common currency may be conflicting, because a country may present an open economy, suggesting joining a monetary union, but it may at the same time lack internationally mobile labor or productive diversification. Conventional wisdom comes out with formal models (Bayoumi and Eichengreen, 1994) that offer a theory of the OCA based on maximizing the net benefits of a common currency.¹

¹ For a critique of the growth with foreign savings policy, see Bresser-Pereira (2004), Bresser-Pereira and Gala (2008), and Bresser-Pereira and Nakano (2002); for the singling out of this policy as the main cause of the balance-of-payments crisis of the 1990s, see Gonzalez (2007).

In line with the conventional wisdom inspired in OCA theory, De Grauwe (2005) lists three different factors that determine whether a **monetary union would be a suitable alternative currency strategy**: (1) the degree of economic integration between the prospective members of the union, (2) the degree to which these countries' economies are subject to asymmetric shocks, and (3) the degree of flexibility in the labor markets. Hochreiter et al. (2002) adds another—that is, a sound financial sector as a precondition. Berg et al. (2002) emphasize the comovement of the economic variables assessed according to a well-known Blanchard and Quah (1989) methodology. In this case, “[t]o assess the desirability and feasibility of a common currency, supply shocks are clearly more relevant, as one might expect demand shocks . . . to become more correlated under a common currency” (Berg et al., 2002, p. 7). Calderon et al. (2002) and Larrain and Tavares (2005) made similar remarks, and indicate that the degree of synchronization of output movements is quite low in the region. De Grauwe (2005) also points out the lack of credibility of the institutions as an additional reason such a monetary strategy is unlikely to be embraced soon.

Edwards (2006) showed that the prerequisites for joining a currency union have increased significantly. According to him, these may include the following in addition to those discussed above: different (or diversified) composition of output and trade across countries; price and wage flexibility across members of the union; similar inflation rates across countries; absence of “fiscal dominance” in the individual countries; and low, and similar, levels of public-sector debt in the different countries.

The only conclusion of these works is that a common currency in Latin American economies, including Mercosul, is remarkably undesirable. There is no sufficient degree of economic integration, either trade or financial; even their business cycles are not intraregionally coordinated. The economies are far more susceptible to international (out-of-region) financial and economic shocks. Generally, the authors come out with comprehensive data to show that the European zone has a higher level of economic integration; but they use current data, and the euro zone was notoriously less integrated than it is currently. Before the adoption of the euro, predictions that it would be a failure were common in the specialized literature on the subject.

According to this same conventional economic literature, Latin American economies had only two relevant choices in the matter of currency arrangement—fully dollarize or fully float. Dollarization was particularly suited to small economies with poor institutional records

(such as Ecuador, Panama, and El Salvador) so that small and troubled economies might embrace the U.S. dollar and borrow the credibility of the North America monetary policies. Dollarization would work as a kind of shortcut to faster development of strong institutions. As in Berg et al. (2002), Latin American countries would benefit from dollarization. By accepting the U.S. dollar as means of payment, they also import the monetary stability provided by the U.S. Federal Reserve. Nothing is said about the fact that by dollarizing, the country is relinquishing control over the most strategic of macroeconomic prices—the exchange rate. Alternatively, bigger economies such as Brazil and Argentina should combine flexible exchange rates and inflation-targeting regimes. Fluctuations would indicate the surrender to the “fear of floating” (Calvo and Reinhart, 2002)—an expression heavily burdened of normative content.

Some authors assert that dollarization has the advantage of encouraging greater economic integration with the United States. We simply do not understand why a similar advantage is not present in the alternative policy of exchange rate coordination within Mercosul. This aside, it is important to note that authors actually recognize that a monetary union provides benefits after adoption, but others reject the possibility, as does Berg et al., who stress: “As far as trade is concerned, there is some evidence that the use of a common currency is a factor that encourages bilateral trade among countries that share a currency” (2002, p. 13). This is an important point. According to OCA theory, countries would only consider a common currency if they showed high levels of economic integration; however, there is reason to believe that exchange rate coordination and a step forward in the direction of a common currency could encourage economic integration inside the region.

First, an avenue of literature has shown that the criteria listed above as prerequisites for belonging to a currency union are endogenous to the monetary and exchange rate regimes (Agénor and Aizenman, 2008; Frankel and Rose, 2000; Fritz and Mühlich, 2006; Rajan, 2002; Rose, 2000). According to these authors, the “trade first” sequence lacks support in the experience of the countries’ trade strategies. Generally speaking, a regional trade arrangement could encourage industrial specialization and interindustry trade, which could increase similarity and symmetry in terms of supply and demand shocks with its partners.

Second, gravity-based cross-sectional evidence indicates that belonging to a currency union more than triples trade with other members of the zone (Frankel and Rose, 2000). Moreover, every 1 percent increase in trade raises income per capita by roughly one-third of a percent over

20 years. Simply put, the benefits of the currency unions for economic performance come through the promotion of trade rather than through a commitment to noninflationary monetary policy.

Third, as properly pointed by Rajan, practices such as “competitive devaluations may generate a protectionist backlash which goes against the purpose of the regional trade arrangement and possibly even threatens its existence, as the recent experience of the Mercosul seems to suggest” (2002, p. 3).

Ultimately, why could exchange rate coordination not precede regional trade arrangements? Why have currency union and regional trade arrangements not ever been established simultaneously? What really happened with the paradigmatic experience of the European Union? Did this experience really follow the “trade-first” conventional wisdom?

In the process of arranging common currency, previous exchange rates parity alignment across the region’s economies would not be expected. The European Union shows how broad the constellation of local currency parities against the U.S. dollar was.² As a benchmark, the European Union was built under those conflicts. Some economies were relatively open (e.g., Belgium’s openness ratio in the 1980s was near 70 percent), others were not (e.g., Germany’s ratio was about 25 percent). Most economies allow the free movement of capital among member states in the aftermath of stable exchange rates. Actually, “the stability of the exchange rate encourages the member states to press forward” (Neal, 2007, p. 103). It seems that conventional wisdom prescribes certain criteria for an optimum monetary union, but the practice indicates that when stable exchange rates are reached, member states are encouraged to step forward in eliminating several kinds of trade and financial restrictions. Even the trade criteria (extension and diversification) are enhanced through lower trade costs, which are among of many benefits of belonging to regional trade and currency arrangements (Alesina and Barro, 2000).³

² See figures 5.1a and 5.1b in Neal (2007, pp. 96, 98).

³ Many authors, such as Alesina and Barro (2000) and Edwards (2006), extend their analysis to the idea of giving up domestic currency and relate this policy to a cost–benefit analysis. Actually, they associate this problem with dollarization and its disadvantages and advantages. As is generally known, a country that gives up its currency loses a stabilization device to target domestic shocks; on the other hand, it may gain credibility and thereby reduce undesired inflation. However, in this paper, we use exchange rate coordination from a different perspective, including currency union, instead of the idea of “giving up” the local currency, and exchange rates as an instrument to enhance regional trade and investment. Therefore, costs and credibility issues are not considered relevant.

Latin American exchange rate regimes

Latin America has had a wide variety of experiences with exchange rate regimes since the 1980s—a decade in which the region experienced a major debt crisis and high rates of inflation. The spectrum goes from adoption of “hard pegs” (currency board, dollarization), to experiences with fixed, but adjustable, exchange rates or sliding bands, with these “soft pegs” ending up superseded by regimes with more flexible nominal adjustments of the exchange rate. The most common sequence begins with the adoption, at some moment, of either exchange rate “soft pegs” (fixed-but-adjustable rates, crawling bands) or “hard pegs” as a basis for inflation stabilization programs. Given residual rates of inflation—mostly from prices of nontradable goods and services—and the tendency to exchange rate overvaluation, as a result of the growth with foreign savings policy, the Dutch disease and exchange rate populism cycles took place (Bresser-Pereira 2008). Loss of trade competitiveness often led to current account deficits in the balance of payments, easily sustained by abundant capital flows to emerging markets in the first half of the 1990s. Simultaneously, an excessive “dollarization of liabilities” tended to occur (both as unit-of-account and as means of payment), as well as a corresponding currency (and often maturity) mismatch in portfolios, given declining perceived exchange rate risks.

After the ensuing balance-of-payments crisis in the 1990s and early 2000s—which tended to be more or less damaging depending on whether the pegs were “hard” (such as the Argentinean currency board) or “soft” (such as the Brazilian one)—pegs were replaced by exchange rate fluctuation, usually after a period of overshooting of the local currency devaluation caused by the balance-of-payment crisis. Chile had the smoothest recent experience of change, replacing its band with a floating regime. In turn, Argentina’s currency board was maintained during Mexico’s and Brazil’s soft peg exchange rate regime upheavals, but it turned out to be unsustainable, sending Argentina into turmoil in the beginning of the 2000s and leading to a huge real and nominal depreciation of the Argentinean peso. Since then, a deliberate policy to avoid reappreciation of the peso has met with success, while the Brazilian real overappreciated gradually from the 2002 crisis until 2008, when the world financial crisis emerged and the real suddenly depreciated.

Table 1 illustrates how pegged exchange rate regimes became widespread in Latin America until the end of the 1990s. With the exception of Panama, all hard-pegged regimes disappeared. Therefore, the “bipolar view” of surviving exchange rate regimes in emerging countries,

Table 1
Pegged exchange rate regimes in Latin American countries (1979–2008)

1979	1982	1985	1988	1990	1991	1995	1998	2008
Bolivia	Ecuador	Guatemala	Ecuador	Haiti	Argentina	Argentina	Argentina	
Chile	El Salvador	Haiti	El Salvador	Panama	Nicaragua	Brazil	Brazil	
Costa Rica	Guatemala	Nicaragua	Guatemala	Dominican Republic	Panama	Panama	Panama	Panama
Dominican Republic	Haiti	Honduras	Haiti		Mexico			
Ecuador	Honduras	Paraguay	Honduras					
El Salvador	Mexico	Peru	Nicaragua					
Guatemala	Nicaragua	Venezuela	Paraguay					
Haiti	Panama	Panama	Panama					
Honduras	Paraguay		Peru					
Nicaragua	Dominican Republic		Venezuela					
Panama	Venezuela							
Paraguay								
Venezuela								

Source: Annual Report on Exchange Arrangement and Exchange Restrictions (EAER), IMF (various issues).

Note: Both soft and hard US\$-pegged regimes (including dollarization).

according to which only extreme regimes are intertemporally sustainable when the emerging country is fully open to capital mobility (Eichengreen, 1999; Fischer, 2001), is not sustainable. In the 1990s, each of the major balance-of-payment crises in emerging economies involved some local sort of exchange rate soft peg at corresponding core countries—Mexico (1994); Thailand, Indonesia, and South Korea (1997); Russia and Brazil (1998); Argentina and Turkey (2000)—the main cause of the crises, however, was not the exchange rate regime, but the growth with foreign savings policy adopted by many developing countries since the early 1990s and the ensuing major current account deficits that these economies faced in the precrisis moment.

It is true, though, that either one or the other policy tends to remain subordinated. An example comes from an inflation-targeting framework in which direct and indirect instruments of intervention in foreign exchange markets are used as a complement to interest rate policy in order to prevent exchange rate hikes from passing through to inflation. Even when there is some (implicit and temporary) exchange rate level target, interventions aim at the inflation rate and not the other way around.

The evidence is clear that Latin American countries moved from crawling and hard pegs to soft pegs or managed floating regimes, on the assumption that they are consistent with monetary policy and better able to cope with moderate balance-of-payment crises caused by the growth with foreign savings policy, loss of credit, and the consequent decision of foreign creditors to suspend debt rollover. Crawling pegs and hard pegs were abandoned for managed floating, consistent with a relatively autonomous monetary policy in a world of high capital mobility, practically rejecting either full hard pegs or full floating. The advocates of passive monetary policies argue for “hard pegs,” whereas those who are skeptical about the capability of the real side of Latin American economies to appropriately adjust to shocks tend to recommend (re)active monetary policies and passive (flexible) exchange rates, but, in fact, these countries are following a middle-of-the-road alternative.

Such a middle-of-the-road alternative is a practical rejection of the “triangle of impossibility,” or the bipolar view. In fact, countries do not work on the sharp angles of the triangle. Instead, they rely on some combination of control of capital flows, monetary and exchange rate policy. This requires monetary authorities to play an active role in pushing ahead monetary and exchange rate policies. Critiques of this middle-of-the-road alternative assume lack of monetary authority credibility to manage the exchange rate. This is just a prejudiced view. Balance-of-payments crises in Latin America were not a consequence of an inability to man-

age the exchange rate, but of the recommended policy of growth with foreign savings (or current account deficits), or of using a nominal anchor to control inflation, or from "exchange rate populism."⁴ One must not forget, on the other hand, that this credibility will only be sustained once stabilization gains have been settled, and if the latter are followed by good performance in other macroeconomic criteria as well (such as growth, high employment, low default risks, etc.).

Frankel (1999) draws attention to various possible hypotheses of what tends to occur over time with respect to income correlation as cross-border trade rises. The only unambiguous conclusion is that there is no single regime right for all countries or at all times. In this respect, the difficulties exiting hard peg strategies should be taken into account. The Argentinean experience on this matter was quite remarkable.

As concerns the current exchange rate regimes in Latin American economies, at this point we propose the following intuitive observations: (1) there was a trend to switch from fixed to floating regimes, but there is nothing to allow any expectation that the present managed float configuration will remain as such in the future, or converge toward either one or the other ends of the continuum; (2) current levels of foreign trade among the Southern neighbors are relatively large—and sectorally important enough to support currency pegging among them. At the same time, those levels are perhaps high enough to undermine national currency pegs to outside regions; and (3) notably, in the case of Mercosul countries, OCA trade-based criteria adapted to optimum exchange rate regimes disregard some relevant financial dimensions of macroeconomic interdependence. Contagion and other neighborhood financial effects could turn their interdependence into a more significant fact than it may appear from a trade perspective. These are the points to be discussed next.

Table 2 shows simple and important trade statistics for Argentina and Brazil. One of several criteria for ascertaining the feasibility of a common currency area relates to trade diversification, dissimilarity of commodity composition of production, and trade baskets. This is a fair concern because monetary arrangements could be weakened on behalf of domestic monetary policy and even more flexible exchange rates as a means to face asymmetrical shocks in the region.

Table 2 also shows that, on one hand, Argentina is well integrated with the region and Brazil shows an ample trade with the rest of the world, although all Latin American countries have a significant share of Brazilian trade. On the other hand, Brazil–Argentina trades are significantly

⁴ For details, see Hallwood and MacDonald (2000, ch. 18).

Table 2
Argentina and Brazil: trade statistics (2007)

	Brazil		Argentina	
	Exports	Imports	Exports	Imports
In U.S. dollars	197,942	173,197	55,780	44,707
Partners (percent)				
Euro area	18.62	20.87	15.92	14.41
United States	17.98	16.26	8.69	12.58
Other LACs	15.3	8.36	22.16	8.32
Argentina	8.52	8.82	—	—
Brazil	—	—	17.3	34.4
China	6.1	8.75	7.53	9.14
Japan	2.83	4.2	0.87	2.73
Others	30.6	32.7	27.5	18.4
Total	100	100	100	100
Trade specialization				
Primary products	30.6	19.04	43.97	6.02
Natural-resources-intensive manufactures	23.59	18.5	25.12	15.2
Low-technology-intensive manufactures	9.15	7.12	5.77	10.97
Medium-technology-intensive manufactures	26.44	32.84	19.4	46.1
High-technology-intensive manufactures	7.66	21.98	2.37	19.7
Others	2.56	0.52	3.37	2.01
Total	100	100	100	100

Source: IMF, *Directions of Trade Statistics* (www.imfstatistics.org/dot/) and CEPALSTAT/ECLAC (www.eclac.cl/estadisticas/bases/).

Note: Euro area and Other LACs (Latin America and Caribbean Economies) include only countries with at least 0.5 percent share.

synchronized with commodity prices (primary products), because the share of primary goods in total exports reaches levels as high as almost 31 percent in Brazil and 44 percent in Argentina. However, according to the Organization for Economic Cooperation and Development (OECD, 2008), using the Herfindahl–Hirschman index (HHI) to assess trade concentration in Latin American economies, Brazil and Argentina show relatively low concentration levels in terms of both destination and product. The HHIs by products are 0.033 and 0.0493 for Brazil and Argentina, respectively.⁵

Therefore, even though the two economies show general differences in terms of international trade, they also present similarities in their trade patterns, implying relatively similar synchronism with the international business cycles. Their responses are just barely different during international shocks.⁶

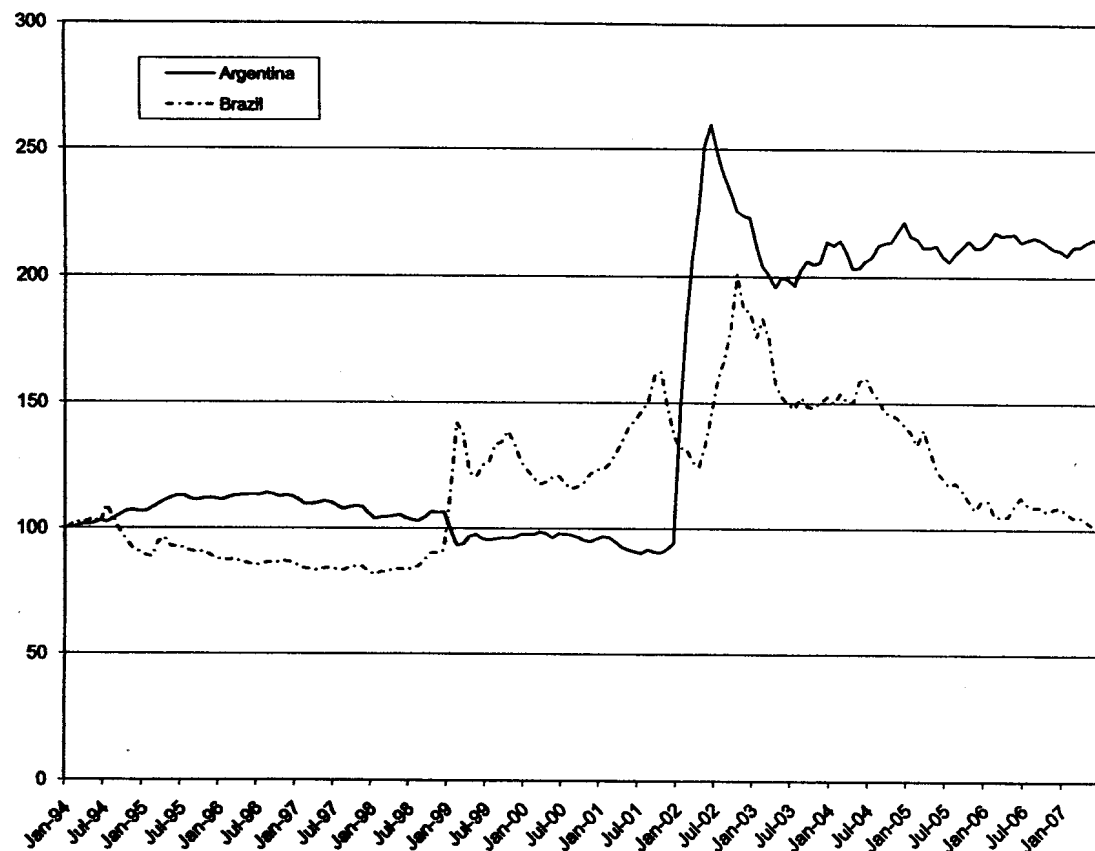
To summarize, over the last decade, the major Latin American economies have moved away from fixed exchange rate regimes toward floating rates. Opposite solutions have also been adopted, such as hard pegging to the U.S. dollar in Ecuador and El Salvador. However, allowing exchange rates to float was the way important Latin American economies found to deal with financial and currency crises. Since 2003, most important Latin American economies have converged to the same *de facto* flexible exchange rate arrangement, and it is fair to ask if a common currency could work sooner for some of them. Some stylized facts can be considered to evaluate the feasibility of adopting a common currency in Mercosul, and particularly between Brazil and Argentina. It is important to emphasize that exchange rate coordination in line with fluctuation bands should be considered as a first step in this direction.

The facts are as follows. First, as the largest Mercosul economies have experienced floating exchange rate regimes, they have allowed exchange rates to float much more broadly than predicted. However, fluctuations do not delivery stability. In nominal terms, by 2008, the Argentinean peso had depreciated more than 100 percent relative to the currency board period (1991–2001), while the Brazilian real was overappreciated by

⁵ The HHI by products averages 0.25 for the Latin American economies; Venezuela shows the highest HHI (0.776). HHI is a measure of concentration that takes into account the weighted average of each product and country. HHI ranges between zero and one; the higher the index, the more exports are concentrated in few products.

⁶ During the financial crisis of 2008, it is undeniable that even the euro zone's economy was strongly synchronized with the turmoil in the United States. It is not the adoption of the euro that intensified this, but rather more financial and trade globalization.

Figure 1 Real and effective exchange rate in Argentina and Brazil (1994–2007)—January 1994 = 100



Source: Bank for International Settlements (www.bis.org/statistics/eer/index.htm).

more than 25 percent relative to the average of the full floating regime period (1999–2008), as seen in Figure 1. In the aftermath of the currency crises, even though the parities are somewhat out of equilibrium, it would be fair to state that short-term monetary agreements between these two countries would help them reach exchange rate stability much faster. This is particularly true for Brazil, as the Argentinean exchange rate has been stable in recent years.

Actually, observing the real and effective exchange rates in both economies, it is fair to say that the parities are closer than might appear at a first glance. The Brazilian real has depreciated because of the recent international financial crisis, showing that it was in fact overappreciated. On the other hand, the Argentinean peso would be more appreciated than Figure 1 indicates if one were to consider private inflation surveys instead of the official index.

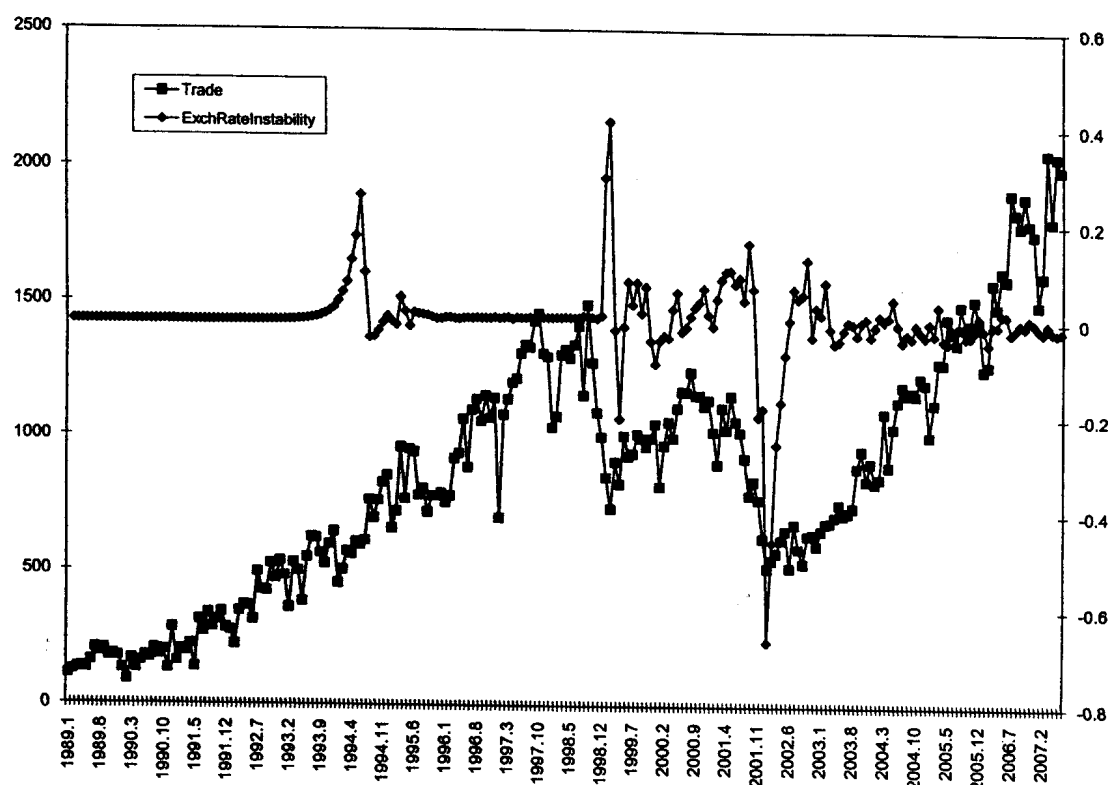
Second, according to the selected macroeconomic indicators for selected Mercosur economies (Table 3), far more similarities than differences exist. Inflation rates are the lowest ever seen; they are all relatively

Table 3
Argentina and Brazil: selected macroeconomic indicators (1997-2007)

Country/indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007F
Inflation rates											
Argentina	0.3	0.7	-1.8	-0.7	-1.5	41	3.7	6.1	12.3	10	9.5
Brazil	5.2	1.7	8.9	6	7.7	12.5	9.3	7.6	5.7	4.3	4
Trade openness											
Argentina	23.3	23.3	21.3	22.4	21.7	40.5	39.2	43.4	43.7	46.4	46.9
Brazil	20.4	20.9	27.5	27.3	33.1	34.7	34.7	34.9	32	36.6	37.7
Dollarization ratio											
Argentina	57.3	58.4	61.1	66.6	72.5	2.9	6.1	10.3	12.8	6.4	4.4
Brazil	0	0	0	0	0	0	0	0	0	0	0
Dollarization vulnerability indicator											
Argentina	92.2	101.8	112.1	122.6	213.2	4.4	10.4	16	15.6	NA	NA
Brazil	0	0	0	0	0	0	0	0	0	NA	NA
External vulnerability indicator											
Argentina	189.5	185	171.8	180.4	260	333.9	347.2	217.4	192.4	103.8	62.3
Brazil	117.5	105.3	206.2	182.1	164.9	144.5	117.2	104.6	144.4	73	53.9
Current account balance (billions of U.S. dollars)											
Argentina	-12.13	-14.48	-11.95	-8.99	-3.29	8.69	8.04	3.3	5.44	4.32	2.91
Brazil	-30.45	-33.42	-25.33	-24.22	-23.21	-7.64	4.18	11.65	14.19	8	4

Source: Moody's data set.

Notes: Inflation Rates = Consumer Price Index % Dec-Dec; Trade Openness = Sum of Exports and Imports of Goods and Services/GDP; Dollarization Ratio = Total Foreign Currency Deposits in the Domestic Banking System/Total Deposits in the Domestic Banking System; Dollarization Vulnerability Indicator = Total Foreign Currency Deposits in the Domestic Banking System/(Official Foreign Exchange Reserves + Foreign Assets of Domestic Banks); and External Vulnerability Indicator = (Short-Term External Debt + Currently Maturing Long-Term External Debt + Total Nonresident Deposits Over One Year)/Official Foreign Exchange Reserves. NA = not available; F = forecast.

Figure 2 Trade ratio and exchange rate instability (1989:01–2007:06)

Source: Funcex (www.funcex.com.br), Ipea (www.ipeadata.gov.br), and authors' calculations.

Notes: Trade Ratio = Total Export and Import between Argentina and Brazil/Sum of Brazilian Export and Import; Exchange Rate Instability = Variation of Real and Effective Exchange Rate.

open economies, likely more convergent than European economies in the early stages of integration; the level of dollarization (deposits dollarization) in Argentina is no longer high. They are still marked by significant external vulnerability ratios. Exchange rates coordination could help deal with such vulnerability.

Third, Figure 2 points out an interesting role played by exchange rate stability. The intensity of trade between Brazil and Argentina only increased steadily when the exchange rate was relatively stable (1992–98); otherwise, trade followed an unpredictable path. We are aware of the short duration and recent history of macroeconomic stabilization.

It is conventional to associate an independent common currency with a suitable degree of economic integration so that “an independent common currency does not seem appropriate for Latin America because the necessary degree of political and economic integration is absent” (Berg et al., 2002, p. 27). As we see it, a challenge for the Mercosul region would be to coordinate their exchange rates in a kind of widely discussed and

regularly evaluated fluctuation band. This would be a step subsequent to the adoption of floating regimes and would enhance trade and financial integration in the region. Moreover, this political decision would help economies stabilize their local currencies.

How integrated are the Mercosul economies? Would increased trade and financial integration advance toward common currency? Would a peg to the U.S. dollar always mitigate cases of sudden exchange rate regime change (currency crises), exchange rate misalignment, high stock market volatility, and financial turmoil?

Other experiences, such as the European Union's, testify to the difficulties in achieving currency agreement as described by Neal (2007), who regards the European Economic Community's (EEC) effort to achieve economic and monetary union as ambitious. In 1970, the EEC proposed to achieve the common currency by 1980 in three stages. The first stage would comprise coordination of macroeconomic policies in order to narrow exchange rate fluctuations among member currencies to within a smaller range than authorized by the International Monetary Fund (IMF) (then still ± 1 percent).

Regardless of the controversy as to whether a country should allow its currency to float, and how intensive should be such fluctuation, which exchange rate regime is better, or even when one economy should waive its own currency to adopt another's, the cornerstone of this work lies in the fact that developing economies need to control their exchange rates. According to Bresser-Pereira (2009, ch. 4), developing countries show a tendency to exchange rate overvaluation as a result of structural causes, principally the Dutch disease and the appeal that the higher rates of profit and of interest in these countries have for foreign capitals. Markets do not make national currencies fluctuate around an equilibrium point as economic theory assumes; instead, they gradually appreciate until they cause balance-of-payment crisis, followed by a sudden stop and a sharp depreciation. Thus, regional agreements aside, developing countries are supposed to neutralize this tendency in order to avoid cyclical financial crises associated either with the growth with foreign savings policy or with exchange rate populism. For countries that aim to integrate, the adoption of coordinated macroeconomic policies and an exchange rate band with a single currency in mind helps the participants keep their currencies competitive because, with one currency tied to another, policymakers will be able to do their job more effectively: overvaluation will only happen if the policymakers in all the involved countries accept it.

According to this approach, the central problems involved with the exchange rate are not choosing a regime—because the “float or fix” alterna-

tive is false—or choosing between exchange rate volatility and exchange rate “misalignment,” but a specific form of volatility and misalignment: overvaluation leading to balance-of-payment crises. Recurring financial crises in these countries do not derive principally of fiscal problems and the twin deficits hypothesis but of the inability of many countries to neutralize the tendency to exchange rate overvaluation. Bresser-Pereira et al. (2009) demonstrated this claim by studying the financial crises of middle-income countries in the 1990s and early 2000s.

Exchange rate coordination in practice in Mercosul

In Mercosul, the endogeneity issue and also the tendency toward exchange rate overvaluation set serious limitations to the prerequisites of OCA area conventional wisdom. Theoretical and practical shortcomings exist. On the other hand, both should be considered if the Mercosul countries, principally Brazil and Argentina, decide to engage in building a common currency area. Let us suppose that this decision is a way to overcome structural causes of exchange rate overvaluation tendency in Mercosul insofar as the “trade first” sequencing no longer works.

Let us assume four important elements from a practical standpoint. First, that there is an *initial level* of the exchange rate in each economy, Argentina and Brazil, that could be considered reasonable. This is a difficult decision because the countries will have to consider (1) the relative ratio between the two currencies and (2) the initial level relative to a basket of other currencies. In this second decision, they should consider the Dutch disease that moderately but effectively plagues these countries. As an illustration, let us assume that these two decisions for the two countries led to an initial 3.5 Argentinean peso per U.S. dollar and 2.5 Brazilian real per U.S. dollar. Second, that there is a *band of fluctuation* of about ± 2.5 percentage points, with those initial levels as the center of the band. These two devices are quite similar to the European snake.⁷ For the sake of simplicity, we assume only two economies—Argentina and Brazil.⁸ Some current statistics may help us in our simulation. In 1999, Brazil implemented a floating exchange rate regime in the aftermath of the currency crises, while Argentina was still experiencing a pegged

⁷ According to Neal, the snake was a “response to the acrimony generated over the realignment of the French and the West German currencies, which had been carried out bilaterally in 1969, the EEC launched an ambitious effort to achieve economic and monetary union” (2007, p. 97).

⁸ As the monetary agreement develops, other regional economies could adopt similar exchange rate strategies.

regime that it only dropped in 2001. From March 1999 to July 2007, just before the international financial crises, the Brazilian real appreciated over 65 percent in terms of the Argentinean peso; the monthly nominal appreciation was about 0.92 percent with ± 5.9 percent on standard.⁹ This is rather high appreciation for such a short period. However, from August 2007 to February 2009, the Brazilian real devaluated about 54 percent in nominal terms. This means that most of the appreciation has faded away recently. It seems that the *relation* between the two currencies has reached a reasonable level.

Let us use a simple illustration to depict some form of exchange rate coordination with Brazil and Argentina. First, a *band of fluctuation* could be established at the current parity, according to the *ratio* of 1 to 1.5—that is, with the Brazilian real appreciated against the Argentinean peso. As the annual inflation rate differential is about 5 percent and assuming purchasing power parity to keep the real exchange rate constant, in a few years we could reach an exchange rate parity similar to the average of the 1999–2003 period. In this simple exercise, there is no productivity-growth differential between the two economies.

The above makes two simple assumptions: (1) annual inflation rates are 5 percent and 10 percent in Brazil and Argentina, respectively, and (2) no dynamic association exists between changes in exchange rate and inflation over time, so that an appreciating peso could help reduce inflation rates in Argentina. Most likely, the depreciation of the real against the peso would have irrelevant effects for the Brazilian inflation rate.

We now assume:

1. annual inflation rates of 5 percent and 10 percent in Brazil and Argentina, respectively;
2. disregarding periods of turmoil in both economies, such as data from November 2001 to February 2003, so that the average nominal appreciation drops from 0.92 percent per month to 0.15 percent per month, and the standard deviation drops from 5.9 percent to 2.5 percent (see Figure 2);
3. smooth depreciation of the real against the peso;
4. using the ± 1 standard deviation of the no-turmoil data sample (i.e., 2.5 percent);
5. medium-term target exchange rates within the *band of fluctuation*;
6. the same productivity growth in the two economies;

⁹ The basic statistics shown here are available from the authors upon request.

7. commitment to a common fiscal and monetary agenda; and
8. commitment to common trade agreements.

With these assumptions, the two economies agree on a *band of fluctuation* in order to balance exchange rate parity distortion and achieve equilibrium in a few years. To be coordinated, the band of fluctuation could be similar to the variability of the exchange rate thus far—that is, ± 1 standard deviation (2.5 percent) around the target. Each target could remain in force for about a couple of years, so as to announce only a few targets. This amounts to a very flexible alternative means of dealing with exchange rate instability in the region, and an intermediate situation could be adopted.

This basic exercise can fairly show the suitability of adopting common exchange rate policies for the two largest Mercosul economies. There are, indeed, two different fronts for such procedures. First, coordinate exchange rates according to a *band of fluctuation* using the current exchange rate parities and the center of the band. Second, a medium-term agreement could be adopted in terms of a (soft) landing of the real against the peso according to moving target zones and ending in either a fixed target zone or a common currency.

Similar to the experience of European snake, we are proposing an ambitious effort to achieve monetary and exchange rate stability in Mercosul as a response not only to exchange rate misalignment and volatility but also, and mainly, to structural problems such as the region's exchange rate overvaluation tendency. Stages of implementation are to be expected similar to the European Monetary System's and, more importantly, so are strategies to avoid such problems as an appreciation *floor*. The stability of the exchange rate in the region and the neutralization of the Dutch disease will encourage the member states to press forward with shared plans and macroeconomic policies.

Final remarks

For more than half a century, Latin American economies have been aiming at economic integration, but Mercosul has been the only case of success so far. Its success was essentially due to the fact that it involved the two largest Mercosul economies—Brazil and Argentina—which already had a sizable trade between them and similar levels of economic growth. After the agreement, trade substantially increased between the two nations. Yet the limits to economic integration are narrow if the integrated countries lack a common currency or, to begin with, a managed exchange rate band.

Conventional economic literature on the subject rejects this possibility on the grounds that Latin American countries lack enough integration, similarity, and macroeconomic coordination. It uses the troubled experience of the region in the past 30 years to reach such a conclusion. By doing so, the literature fails to realize, first, that in the 1980s, the region—and particularly the two major Mercosul countries that were the object of our paper—experienced a major debt crisis that developed into economic stagnation and high inflation; second, that in the 1990s, they were the subject of conventional orthodoxy's experiments with exchange rate regimes (currency boards, exchange rate anchors); third, that they adopted the recommended growth with foreign savings policy that together with the exchange rate regimes caused overappreciation of their respective currencies and major balance-of-payment crises.

Yet from the analysis developed here, one should not conclude that the first step to be adopted by the Mercosul countries—a band of exchange rate fluctuation—is an easy job. It is not. First, Brazil and Argentina in particular must come to an agreement concerning the initial ratio between their real exchange rates. Second, a higher degree of macroeconomic policy coordination will be clearly required. Contrary, however, to what the conventional literature says on this matter, there is no reason to believe that the two requirements cannot be met. This literature bases its assessment on the two countries' recent past experience—one that was troubled by a major debt crisis followed by the adoption of misguided exchange rate policies. It is also based on a preconception that the governing capacity of Mercosul countries paralyzes economic integration—an integration that will only materialize when the countries involved reach a solid agreement on their real exchange rates.

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