

Some Pitfalls of Regionalization *

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In connection with regional economic integration (e.g., free trade zones, common markets), it is argued that biases in the negotiation process by which these arrangements come into being typically reduces the benefits of trade creation and increases the costs associated with trade diversion. Regional monetary integration, such as is being realized in the Euro zone, also faces some difficulties. Due to the fact that the major currencies (the U.S. dollar, the euro and the yen) are floating and the exchange rates among those currencies have exhibited a great deal of volatility, small countries engaging in monetary integration may well find themselves experiencing quite different rates of inflation and hence even a common currency would not result in equality of real interest rates in the countries involved.

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1. INTRODUCTION

Regionalization has both political and economic consequences. Turning first to the political consequences, regionalization is an arrangement by which two or more countries choose to give up some sovereignty over some aspects of its policy apparatus. Regional economic integration has traditionally ranged from a situation in which countries exchange "common lists" of goods to which they give their partners' exports preferential treatment, to common

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markets where, in principle, goods, services, as well as factors enjoy free movement among the member countries. In so doing, each country cedes some control over its commercial policy to the arrangement. Monetary and exchange rate regimes also are subject to regionalization. A country that pegs its currency to that of another country has essentially given over all of its monetary

policy to the latter country; as history has shown, however, fixed exchange rates have been and will be easily unfixd. "Dollarization" or "euroization" goes a big step further since that move may well be irreversible. In the extreme, monetary union, as is being experimented with in the euro zone, involves a near permanent loss of control over monetary policy.

2. REGIONAL ECONOMIC INTEGRATION

The pros and cons of regional economic integration are well known and will be dealt with only briefly in this presentation. Advocates of regional economic integration refer to that arrangement as one of preferential treatment of member countries' exports. But it is impossible to give preferences to a member country's exports with discriminating against the exports of non-member countries. These arrangements are, then, basically discriminatory.

It is well known that diversion of a member country's import trade is harmful, as it converts an internal transfer (tariff revenue) into an external transfer. Trade creation is, in the long run at least, beneficial as it leads to lower cost sources of certain goods.

A serious problem with regional economic integration, as I see it, is the very process by which those agreements come into being. Such arrangements are virtually never "all or nothing"; that is, countries engaging in the negotiations hardly ever agree to reduce or eliminate import barriers on *all* imports from participating members. Rather, they negotiate item after item, which opens the process to lobbying and political pressure. In those negotiations, aspects of the final agreement that will lead to trade diversion

have virtually no opponents: consumers in the importing member countries will benefit from them, exporters in the member countries also will benefit from it (or at least not be harmed). The only losers are the taxpayers, and we all know from the transaction cost literature that the costs of organizing a taxpayer lobby to oppose arrangements that lead to trade diversion are high relative to the benefits to each member of that lobby. As a result, the negotiations are biased towards trade diversion.

Aspects of regional economic integration agreements that will lead to trade creation, however, have powerful opponents. It has to be recognized that trade creation obviously damages the owners of factors employed in those industries where imports will compete more aggressively with domestic producers. Those owners clearly have an incentive to lobby against inclusion in the agreement of preferential import trade that will damage them, and those owners face far lower transaction costs in organizing a lobby that do the consumers, who would be the ultimate beneficiaries. As a result, the negotiation process leading to regional economic integration agreements is heavily biased in favor of trade diversion and against trade creation. The bottom line to keep in mind is that more trade is unambiguously preferable to less trade only if a country's trading regime is non-discriminatory.

3. REGIONAL MONETARY INTEGRATION

I want now to turn now to regional monetary integration, which has both advantages and disadvantages for the member countries. Here I will focus only on one of the disadvantages, one that I think is particularly important and arises from the very nature of the post-1973 international monetary arrangement which is characterized by three major currencies: the U.S. dollar, the European euro, and the yen. Most minor currencies are linked to one of these major currencies in some fashion, although some, such as the Australian dollar, are floating and a few are tied to a basket of several currencies, that basket typically being the SDR or the ECU (now the euro). The most

important aspect of the current arrangement is that the three major currencies are floating, and both the nominal and real exchange rates among them have been highly unstable.¹⁾

The issue posed for small minor-currency countries by the instability of the major-currency exchange rates is known as the "N" versus "N-1" problem. Under the Bretton Woods system, exchange rates among the major currencies were highly stable, so a small country could tie its currency to the U.S. dollar, the pound sterling, the yen, or the DM, all to the same effect; to fix against one major currency was to fix against them all. Such is not the case under the current arrangement. A country that ties its currency to the U.S. dollar, for example, finds that its currency floats against the euro and the yen, as well as many of the minor currencies.

The Optimal Currency Area Argument

The issue of regional monetary integration brings to fore an important issue that is known as the optimum currency area. This issue arises because a common currency area precludes exchange rate adjustments to promote macroeconomic stability in the face of internal and external shocks. Mundell's (1961) analysis reached several conclusions, among the most important was that a prerequisite for an optimum currency area was factor—and, in particular, labor—mobility within that geographic area. That prerequisite clearly is not met in most cases where regional monetary integration might be contemplated.

An Alternative Formulation

Mundell's analysis was in the context of the Bretton Woods system; in the current international monetary setting, an alternative formulation of the common currency area issue involves the manner in which minor-currency countries are affected by shocks to the major-currency exchange rates. To

¹⁾ The collapse of the fixed-exchange-rate Bretton Woods system among the major currencies in 1973 resulted in a very large increase in the variance of purchasing-power-parity real exchange rates; see Mussa (1986) for a thorough treatment of that subject.

do so, we first specify the behavior of the prices of internationally traded goods and services. In a world of M open economies, it can be shown that a, say, U.S. dollar price index for the goods traded by country X is governed by the M national price levels and the $M-1$ exchange rates; with all price indices converted into dollars, that relationship is as follows:

$$PT_{x,s} = \sum_J^M \theta_{x,j} (P_j + E_{US,j}) + G(Z_x), \quad (1)$$

where $PT_{x,s}$ is the log of an index of the dollar prices of goods traded internationally by country X , P_j is the log the price level of country J , $E_{US,j}$ is the log of the dollar price of currency J , $(P_j + E_{US,j})$ is the log of the price level of country J denominated in dollars, and $G(Z_x)$ reflects the effects of all other relevant variables (the "fundamentals"), which will be neglected in what follows.²⁾ The non-negative $\theta_{x,j}$ coefficients measure the *relative market power* of country J over the prices of goods traded internationally by country X . It is important to understand that the magnitudes of the θ parameters in equation (1) depend upon the *composition* of a country's traded goods, and *not* on the countries with which it trades. That those coefficients must sum to unity can be seen by imagining that the price levels in all M countries were to double (but with all exchange rates held constant) in which case the prices of all internationally-traded goods also must double when measured in any of the M currencies.

By exploiting the property that the $\theta_{x,j}$ coefficients sum to unity, the U.S. price level can be added to and subtracted from the right-hand side of equation (1), which then can be rewritten as:

$$PT_{x,s} = P_{US} + \sum_J^M \theta_{x,j} (P_j + E_{US,j} - P_{US})$$

²⁾ This analysis leading to equation (1) apparently was first employed by Ridler and Yandle (1972) in a study of the effect of exchange rates on commodity prices. For a specific derivation of equation (1), see Sjaastad (1998).

$$= P_{US} + \sum_j^M \theta_{x,j} \cdot RER_{US,j}, \quad (2)$$

where $G(Z_X)$ has been neglected and $RER_{US,j} = P_j + E_{US,j} - P_{US}$ is the log of the purchasing-power-parity (PPP) real exchange rate of the U.S. *vis à vis* country J . With Π referring to the inflation rate, equation (2) can be written as:

$$\Pi_{T,x,\$} = \Pi_{US} + \sum_j^M \theta_{x,j} \cdot (dRER_{US,j}/dt), \quad (3)$$

in which $\Pi_{T,x,\$}$ is the rate of inflation of dollar prices of goods traded internationally by country X , Π_{US} is the inflation rate in the U.S., and $(dRER_{US,j}/dt)$ is the rate of change of the U.S. PPP real exchange rate *vis à vis* country J .

The interpretation of equation (3) is straight forward. The variable $\Pi_{T,x,\$}$ is the rate of *dollar* inflation of country X 's traded goods, which can be quite different from Π_{US} , the U.S. domestic rate of inflation, whenever there are deviations from purchasing power parity between the U.S. and the other major-currency countries.

The behavior of the dollar during the 1973-1985 period illustrates the degree to which the U.S. inflation rate and inflation rates of dollar prices of internationally-traded goods can differ. The immediate effect of the breakup of the Bretton Woods system was a deep, prolonged depreciation of the U.S. dollar. From early 1973 to mid-1980, the dollar price of the yen rose by nearly 40 per cent and the price of the DM by a whopping 80 per cent. As the inflation rates were quite similar in the three countries, the nominal depreciation of the dollar also was a *real* depreciation; that is, the variables $(dRER_{US,j}/dt)$ in equation (3) were strongly positive. In other words, the real depreciation of the dollar induced an *international* dollar inflation that was far in excess of the U.S. inflation rate. That inflation differential was reflected in the behavior of the IMF commodity price index, which is based on U.S. dollar wholesale prices of some 36 commodities. From 1975 to

mid-1980, the ratio of that index to the U.S. CPI increased by no less than 35 per cent. In terms of equation (2), if we interpret $PT_{x,s}$ as the IMF commodity price index (with the $\theta_{x,j}$ appropriately defined for that case), the cumulative increase in the term $\sum_j^M \theta_{x,j} \cdot (dRER_{US,j}/dt)$ was 35 per cent from 1975 to mid-1980.

In 1980, the dollar began a remarkable recovery that lasted until the mid-1985; again drawing on equation (3), the term $\sum_j^M \theta_{x,j} \cdot (dRER_{US,j}/dt)$ remained large but its sign switched from positive to negative. As expected, the result was an intense international *dollar* deflation. In the five years from mid-1980 to mid-1985 the U.S. consumer price level rose by 29 per cent, whereas the IMF dollar-based commodity price index actually *declined* by 30 per cent, causing the ratio of the latter to the former to *fall* by 45 per cent, indicating a cumulative *decline* in the $\sum_j^M \theta_{x,j} \cdot (dRER_{US,j}/dt)$ term of 45 per cent from mid-1980 to mid-1985.

This analysis poses two important criteria for regional monetary integration. The first concerns the question "Do the countries involved constitute an optimal currency area?" The answer is quite simple. In the case of two countries, X and Y , contemplating a monetary union, those two countries constitute an optimal currency only if the set $\theta_{x,j}$ and the set $\theta_{y,j}$ are quite similar. If not, those two countries might experience quite different rates of inflation (or deflation) in their traded-goods sectors (and ultimately in their entire economies) due to fluctuations in the major-currency exchange rates, as is illustrated in equation (4):

$$\Pi_{T,x,s} - \Pi_{T,y,s} = \sum_j^M (\theta_{x,j} - \theta_{y,j}) \cdot (dRER_{US,j}/dt). \quad (4)$$

But as one supposes that the nominal interest rates in the two countries would be quite similar, it follows that that their *real* interest rates could be

very different.³⁾

One need only to examine the 1973-85 period appreciate the importance of this first issue. The economies of countries who were "integrated" monetarily with the U.S. by tying their currencies to the dollar prospered handsomely during the dollar depreciation of 1973-80, only to suffer greatly when the dollar recovery from 1980 to 1985 led to a world dollar deflation, a collapse of the dollar prices of their exports, and a major increase in their real interest rates. Although most countries had disconnected from the dollar by late 1982, the fact that the damage had already been done was manifested in the deep recessions that characterized much of Latin America.

There is, of course, no assurance that the degree of instability of the major currency exchange rates will be as great in the future as it has been in the past but, in my opinion, only a fool would bet the farm on the future stability of the yen/dollar and euro/dollar exchange rates. Large fluctuations in the major-currency exchange rates have persisted well beyond their dramatic behavior during the 1973-85 period. For example, from the first half of 1990 to the first half of 1995, the yen/dollar exchange rate fell from more than 150 to just over 90 yen per dollar, but by the first half of 1997, the yen price of the dollar had risen by nearly 40 per cent to 120 yen. It also must be noted that, at the time of this writing (May 2001), the value of the euro *vis à vis* the dollar has fallen by about 25 per cent since the euro was introduced in January 1999.

The second criterion concerns the exchange rate regime to be pursued by the monetary union (assuming that the first criterion is satisfied). If the monetary union opts to float its currency, the issue is moot. But if the monetary union opts for an exchange rate rule, then it should either define that rule against the currency of the country with the largest collective $\theta_{*,j}$ or define that rule against a basket of currencies. As I have shown elsewhere,

³⁾ If countries X and Y are pursuing exchange rate regimes that effectively fix the exchange rate between those two countries, then equation (4) can be interpreted as the rate of change of the PPP real exchange between the traded-goods sectors of those two countries. As a result, purchasing power parity will not hold between those two sectors if there are persistent changes in the PPP real exchange rates between the major currencies.

the shares of the various currencies in the optimal basket are exactly equal to the collective $\theta_{*,j}$.⁴⁾ As I also have shown elsewhere, it is quite straight forward to estimate those parameters.⁵⁾

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⁴⁾ For specifics, see Sjaastad (2000).

⁵⁾ For specifics, see Sjaastad (1998).