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**Customs Unions, Free Trade Areas,
and Exchange Rate Arrangements**

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Foreword

The institutionalization of the Banco Central do Brasil Technical Notes, conducted by the Department of Economics, promotes the dissemination of works featuring economic content, attracting both theoretical and methodological interest, giving a view of the short-term developments of the economy and reflecting the work of the Bank's employees in all areas of action. Besides, other works, though foreign to the Banco Central, may be included in this series provided the Bank has afforded institutional support to their preparation.

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Customs Unions, Free Trade Areas, and Exchange Rate Arrangements

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Do customs unions and free trade areas require fixed exchange rates between their members' currencies? Do devaluations or their trade-policy equivalents – uniform export subsidies combined with uniform import taxes – have different effects under the two trade regimes? This note explores these questions, paying close attention to the effects on trade in goods produced within the member countries and the effects on trade in goods coming from the outside world.

1. The main differences between CUs and FTAs

We begin by recalling the main differences between a customs union (CU) and a free trade area (FTA). Under both regimes, of course, there are no barriers to trade between the member countries (although some FTAs do not cover a classes of goods).

Under a CU, however, the members maintain a single, unified tariff schedule on goods from the rest of the world (ROW), and no member is allowed to depart unilaterally from that unified schedule-to charge higher or lower tariffs on goods from the outside world or make trade agreements of its own with the ROW. In the European Union (EU), for example, all negotiations with outsiders are conducted by the European Commission, under a mandate approved by the Council of Ministers, and trade agreements made by the Commission are binding on all member countries.

Under an FTA, by contrast, each member maintains its own tariff schedule on goods from the ROW. Furthermore, each member can raise or reduce its own external tariff and can even enter into FTAs with other countries. (In some cases, however, it may require the consent of the other members). There can thus be *trade deflection* in an FTA. Transport costs permuting, all imports of each good, say cars, can enter the FTA *via* the country having the lowest tariff on that good and then be re-exported to the other member countries. In an FTA involving countries A and B, for example, where country A has the lower tariff on cars, all cars from the ROW destined for country B will enter the FTA *via* country A, with the result that country A's lower tariff on cars will be rate prevailing effectively in country B and the extra protective effect of country B's higher tariff will therefore be nullified.

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To guard against trade deflection, members of an FTA typically adopt *rules of origin*. These say, in effect, that a car imported into country A from the ROW cannot be re-exported to country B tariff-free unless there has been a certain amount of *value added* in country A. Thus, the FTA between countries A and B may say that a car can be exported from country A to country B if it is assembled in country A using parts imported from the ROW, but cars fully assembled in the ROW cannot be re-exported from country A to country B without paying the difference between country B high car tariff and country A's low car tariff (or, in some cases, the whole of country B's high car tariff).

2. Exchange rates and trade within a CU or FTA

The traditional literature on CUs and FTAs argues that countries A and B do not have to fix the exchange rate between their currencies in order to reap the efficiency gains from a CU or FTA. It does not deny that a change in the exchange rate will affect the competitive positions of industries in the two countries. That would also occur, however, in the absence of a CU or FTA.

Setting aside momentarily complications introduced by trade with the ROW, consider the effects of a devaluation of country B's currency. It will reduce the prices of country B's exports to country A measured in A's currency and raise the prices of country A's exports to country B measured in B's currency. In other words, goods produced in country B will become more competitive, relative to country A's goods, throughout the CU or FTA. But a devaluation by country B would have those same effects if there were no CU or FTA. If the creation of the CU or FTA caused country A to become the principal supplier of cars to countries A and B together, and it caused country B to become the principal supplier of chemicals, a subsequent devaluation of B's currency will make country B more competitive in both cars and chemicals, but it cannot undo the *pattern* of specialization resulting from the CU or FTA.

Under both trading arrangements, moreover, country A is prevented from raising its tariffs on imports from country B or making other trade-policy changes to offset the effect of the devaluation by country B. It has no more freedom to do that under an FTA than under a CU. Both arrangements forbid interference with bilateral trade between its members.

One extra option may be available to country A under an FTA. It may be able to raise its tariffs on imports from the ROW in order to shift to the ROW some of the competitive pressure resulting from country B's devaluation. Its ability to do that, however, may be limited by its adherence to the GATT and membership in the WTO. (It will also be constrained by the coverage of the existing rules of origin; if country A raises its tariffs above those of country B, it will induce new *trade deflection*.) Furthermore, an increase in country A's tariffs can relieve pressures on its import-competing industries but not on its export industries.

There is, of course, the risk that all of country A's producers, being adversely affected by country B's devaluation, will put political pressure, on country A's government to withdraw from the CU or FTA or provide other sorts of relief, such as subsidies or tax cuts, to mitigate the adverse effects of country B's devaluation. It can therefore be argued that a fixed exchange rate between the two countries' currencies will make a CU or FTA more robust. But this conclusion, like most others, holds equally well for CUs and FTAs.

At this point in the analysis, then, the effects of a devaluation are not significantly different under CUs and FTAs. A member of an FTA has only one extra degree of freedom to offset the effects of a devaluation by another member-relieving the competitive pressure on its import-competing industries by raising its tariffs on imports from the ROW-and its access to that option may be severely limited by the rules of the multilateral trading system and the rules of origin of the FTA itself.

3. Monetary unions and trade integration

Before examining the effects of country B's devaluation on trade with the ROW, let us deal briefly with two other issues-the importance of fixed exchange rates or a common currency for "deep" integration, and the importance of fixed rates for the full realization of the efficiency gains from trade integration.

Europeans often argue that fixed exchange rates are required to support and reinforce the integration of the European Union. That is, indeed, why they insist that monetary union is the logical and necessary counterpart of the single market. They give two reasons.

The first reason was mentioned above-that large exchange-rate changes foster protectionist pressures that give rise in turn to the use of subsidies and other covert forms of aid to domestic industries adversely affected by exchange-rate changes. Such pressures arose within the EU in 1992-93, when the lira and pound depreciated sharply. In the worst case, protectionist pressures could force a country to resist further steps toward integration of the European Union or, in the extreme case, to withdraw from the EU itself. (On these matters, see Eichengreen's paper, "A More Perfect Union", *Essays in International Finance* 198, 1996).

The second reason pertains; to the ambitious nature of the European project, which seeks to foster the free movements of capital and labor, not merely the free movements of goods and services, and capital markets cannot be fully integrated without eliminating exchange-rate risk by establishing a full-fledged monetary union. The remarkably rapid growth of the euro bond market in the last two years testifies to the validity of this argument.

A few words are also needed about a "new" view associated with the work of Andrew Rose (see his paper in *Econ. Policy* 30, 2000, and his paper with van Wincoop

in *Amer. Econ. Rev.*, May 2001). Using a gravity model of bilateral trade, Rose showed that countries which share a single currency—the strongest form of fixed-rate regime—trade much more with each other than do other pairs of countries. This finding held, moreover, even after Rose took account of other factors that could account for the effect, such as common membership in a CU or FTA, a shared language, geographic proximity, or a previous colonial relationship.

Questions have been raised about the validity of these results, because the sample used by Rose included several asymmetric cases in which a very small dependent economy shares a single currency with a much bigger economy, and it did not include the EU because it pertained to the pre-EMU period. Nevertheless, those results are consistent with other recent research on the trade-depressing effects of trading costs in general, including currency-conversion costs and currency-hedging costs. These have been featured in theoretical work by Obstfeld and Rogoff and in earlier empirical work by Engel and McCallum, who showed that national borders *per se* have large trade-reducing effects that international trade is smaller than interregional trade, all other things being equal. Taken together with those results, the new results obtained by Rose suggest that monetary unions have large real-side effects, because they banish exchange-rate risk. If that is true, moreover, there may be a strong synergistic relationship between trade integration and monetary integration including both forms of trade integration. There is no good reason to believe that the relationship holds only for CUs and not for FTAs.

4. Exchange rates and trade with the ROW

Thus far, we have dealt exclusively with the effects of a devaluation by country B on bilateral trade within a CU or FTA. Consider, next, the effects of such changes on trade with the outside world.

A devaluation of country B's currency will reduce the volume of country B's imports from the ROW, as well as its imports from country A, and it will raise the volume of country B's exports to the ROW, as well its exports to country A. The effects on country B's trade with the ROW, moreover, may mitigate the increase of competitive pressure: experienced by country A; some of it will be diverted to the ROW. But a devaluation of Country B's currency will not cause trade deflection.

No resident of country A will have an incentive to import goods from the ROW at unchanged prices in country A's currency in order to re-export them to country B, as their prices in country B's currency will have risen by the same amount, whether they come directly from the ROW or via country A. And no one in country A will have an incentive to import goods from country B at lower prices in country A's currency in order to re-export them to the ROW, as the prices of country B's goods exported directly to the ROW will have fallen by the same amount in the ROW's currency.

We arrive at the same result, moreover, when we examine the possibilities viewed from country B's standpoint. As the devaluation of country B's currency does not affect the prices of ROW goods expressed in country A's currency or the prices of country A's goods expressed in the ROW's currency, no one in country B will have an incentive to import goods from the ROW in order to re-export them to country A or to import goods from country A in order to re-export them to the ROW.

There is, however, one more possibility, and it is one in which outcomes with an FTA differ from those with a CU. A devaluation of country B's currency will raise the cost of inputs imported from all other countries—from country A as well as from the ROW. This cost-raising effect will occur under a CU and an FTA, and it will offset part of the competitive advantage conferred on country B by the devaluation of its currency; the prices of its goods will rise in terms of its own currency, and this will limit the reduction in their foreign-currency prices due to the devaluation. Under an FTA, moreover, the increase in the cost of inputs will reduce the share of domestic value added in the total cost of a unit of country B's output. Hence, some of the goods that country B had been able to export to country A under the existing rules of origin of their FTA may no longer pass the value-added tests on which those rules are typically based. A car assembled in country B using parts imported from the ROW may no longer qualify for tariff-free treatment by country A. But this is the only important way in which an exchange-rate change can function differently in an FTA than in a CU—and it works to the disadvantage of the devaluing country, not to the disadvantage of the other member countries.

5. The bottom line

Let us sum up by asking this question: Is Domingo Cavallo right to say that a CU requires a fixed exchange rate, whereas an FTA does not? The answer, in brief, is no.

A fixed exchange rate or full-fledged monetary union may be needed to achieve a comprehensive economic union—an arrangement like the European Single Market because it involves the unification of factor markets as well as product markets.

A fixed exchange rate or full-fledged monetary union may be needed to realize fully the efficiency gains conferred by product-market integration, but this proposition is equally true for both sorts of product-market integration a CU and FTA.

We have seen that the main effects of a devaluation are the same in a CU and an FTA, but there are two second-order differences:

- a) When one member of an FTA devalues its currency, the others can mitigate

the competitive pressures on their import-competing industries by raising their tariffs on imports from the ROW. Their ability to do that, however, may be severely limited by their membership in the WTO and by the risk of inducing trade deflection. Members of a CU, by contrast, cannot raise their tariffs unilaterally.

- b) When one member of an FTA devalues its currency, the domestic-currency cost of imported inputs rise, reducing the share of domestic *value added* in the total cost of domestic goods that use imported inputs. Hence, some of its goods may no longer meet the value-added tests used in the rules of origin of the FTA, and it may thus lose export markets in the other member countries.

It is therefore wrong to argue that members of a CU must fix their bilateral exchange rates or, conversely, that countries that do fix those rates should not form a CU but should instead be content to form an FTA.