Appendix 1

The Economics of Regional Integration

Mary E. Burfisher

The concepts of trade creation and trade diversion form the core of economic analyses of RTA's. Trade creation can occur within an RTA. Production efficiency improves when RTA members import more from lower cost RTA partners, and less efficient domestic production falls. Consumption efficiency improves when consumers in an RTA can buy imports at prices that are lower than those for domestic products. As a hypothetical example, assume an RTA is formed between Guatemala, an efficient coffee producer that can produce wheat only with intensive and costly irrigation, and Nicaragua, an efficient wheat producer that can produce coffee only in greenhouses. An RTA creates trade if it results in greater Nicaraguan imports of relatively low- cost Guatemalan coffee, and a shift in Nicaraguan farm production from hot-house coffee into wheat. Guatemala gains if it imports more relatively low-cost Nicaraguan wheat, and grows less of its intensively irrigated domestic wheat. Nicaraguan consumers gain because of the decline in the price of coffee, while Guatemalan consumers gain from the lower price of wheat.

Trade diversion occurs when RTA members shift their imports from more efficient, nonmember producers, to less efficient partner countries within the RTA. This reduces the world's production efficiency, and hurts consumers within the RTA, who now import from high-cost members of the RTA. In the example of Nicaragua and Guatemala, assume that prior to forming an RTA, Nicaragua had identical tariffs on its imports of cocoa from all sources. Assume that at that tariff, Nicaragua imported its cocoa from Mexico, which produced it at lower cost than Guatemala. After the RTA, trade diversion would occur if Nicaragua shifts its cocoa imports from Mexico to Guatemala. In this case, the removal of Nicaraguan tariffs gives Guatemala's higher cost cocoa an advantage over Mexican cocoa in the Nicaraguan market. Nicaraguan consumers pay less for duty-free cocoa imports under the RTA, but when lost tariff revenue is also accounted for, Nicaragua has net losses from trade diversion.

RTA's can either benefit or harm nonmembers. Efficiency gains and increased real income within the RTA may increase the RTA's demand for imports. This is trade expansion, and it can benefit nonmembers. Conversely, both producers and consumers in nonmember countries are hurt by trade diversion. Production efficiency declines if nonmember countries must now produce goods they formerly imported at lower cost from RTA members. In the case of Mexico and Nicaragua, the shift of Nicaraguan wheat exports to Guatemala reduces export availability for Mexico, and causes Mexico to shift to wheat production and out of cocoa, the crop in which Mexico has an international comparative advantage. Mexico's consumption efficiency declines because it must now pay for higher cost domestic wheat.

Most RTA's have both trade-creating and trade-diverting impacts. Whether the trade-creation or the trade-diversion effect dominates depends on many factors, including production cost differences, rates of initial tariffs, and relative supply and demand responses (app. table 1). For example, if an RTA is formed between two countries with very different costs of production, there would be large potential gains as production shifted to lower cost producers.

Terms-of-Trade Effects

If the RTA is large enough in world markets to affect the prices of its imports and exports, or if the costs of production increase as production expands, there can also be terms-of-trade effects. "Terms of trade" refers to the relative prices of imports and exports. An RTA is likely to improve the terms of trade for members and lower them for the rest of the world. This is one of the primary concerns that nonmembers have about RTA's. In the example of the RTA between Nicaragua and Guatemala, decreased Nicaraguan demand for

Mexican cocoa might lower its price. Likewise, the shift of Nicaraguan wheat exports to Guatemala could reduce the availability, and raise the price, of Mexico's wheat imports from Nicaragua. While Nicaragua loses from the diversion of its imports from Mexico to Guatemala, its full cost would be reduced by its improved terms of trade with Mexico. That is, the Nicaraguan wheat export price to Mexico has risen, while its cocoa import price from Mexico has declined. Conversely, the trade diversion causes Mexico's terms of trade to worsen. Terms-of-trade changes are key to understanding the distributional impacts of an RTA: the costs of trade diversion can be partially, or even fully, borne by nonmembers if their terms of trade deteriorate.

Trade creation, trade diversion, and terms-of-trade effects constitute the welfare impacts of an RTA (app. table 2). Welfare refers to the efficiency of resource use in production, and the ability of consumers to satisfy their preferences.

RTA's as Building Blocks or Stumbling Blocks to Multilateralism

The effects of RTA's on the multilateral trade liberalization process have generated intense debate. Just as Viner (1950) influenced the debate over customs unions by articulating the twin concepts of trade creation and trade diversion, Bhagwati (1991) has influenced the debate over regionalism by developing a time path conceptualization of RTA's as building blocks or stumbling blocks to the multilateral freeing of trade. Building blocks contribute to multilateralism by adding new members or by prompting an acceleration in multilateral trade negotiations. Stumbling blocks do the opposite. Economic theory is still engaged in identifying the characteristics of RTA's that are likely to make them building blocks or stumbling blocks to multilateralism (app. table 3). For many of the characteristics considered relevant, there are opposing views as to how they influence the dynamic path of the RTA.

Table 1--An RTA tends to be more trade creating than trade distorting...

the larger are unit production costs differences within the RTA
the smaller are cost differences between members and nonmembers
the higher the pre-RTA tariff
the lower the post-RTA tariff that is set between the RTA and nonmembers
the greater the member country's supply and demand responsiveness, in the case of trade creation
the more competitive the pre-RTA structure of members' economies due to tariffs
the larger the initial trade flows between complementary or "natural" partners

Table 2--Welfare impacts of regional trade agreements

Trade creation	Production shifts to lowest cost producer in RTA
	Consumption shifts from domestic goods to imports from RTA partner
Trade diversion	Production shifts to RTA member, as imports decline from lower cost, nonmember exporter; if an importer, nonmember's production increases, as RTA exports shift to partner destination
	Consumption by RTA members shifts to imports from higher cost RTA partner; consumption by nonmembers shifts to higher cost domestic products
Terms of trade effects	Market size or nonconstant costs affect prices of imports relative to exports

Table 3--Are regional trade agreements stumbling blocks or building blocks to free trade?

RTA's are building blocks when...	
	…they reinforce or lock in domestic policy reforms
	...they have open admission and outsiders are motivated to join
	...they tackle issues that are too deep or complex for multilateral negotiations
	...as large blocks, they influence negotiations toward free trade
	...deeper integration of policies and institutions creates trade
	...non-members receive unconditional MFN status.
RTA's are stumbling blocks when...	
	...they create interest groups that benefit from trade diversion
	...they divert political capital from multilateral initiatives
	...as large blocks, they exert market power to improve terms of trade for members
	...they block additional members to preserve trade gains
	...they maintain external trade preferences
	...deeper integration of protectionist policies diverts trad