Policy Research
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Country Economics Department
The World Bank
October 1992
WPS 985

Regional Integration, Old and New

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Regional integration arrangements are more likely to be a stepping stone toward a freer world trading system if GATT rules are strengthened — and if developing countries enter into arrangements with developed rather than other developing countries.

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This paper — a product of the Trade Policy Division, Country Economics Department — is part of a larger effort in the department to understand new regionalism in trade policy. The research was funded by the Bank's Research Support Budget under research project "New Dimensions in Regional Integration" (RPO 677-12). Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington DC 20433. Please contact D. Ballantine, room N10-023, extension 37947 (October 1992, 47 pages).

After lying dormant for two decades, regional integration is on the rise. Recent initiatives suggest that the world trading system may be moving toward three trading blocs clustered around Japan, the European Community, and the United States.

Some view this development as a move toward a less fragmented world trading system; others, as a threat to multilateralism. For a typical developing country, the issue is whether to enter into a regional integration arrangement or to choose unilateral trade liberalization.

Two questions must be asked: Is a preferential approach likely to enhance economic efficiency? And are substantial benefits attainable more easily through regionalism or through unilateral trade liberalization?

De Melo, Montenegro, and Panagariya address these issues first by reviewing past and recent regional integration arrangements. They note that recent arrangements are occurring in a more liberal trading environment than those in the past, and that developing countries are now seeking integration with developed country partners (for example, Mexico with the United States). So the context is different from past arrangements, when regional integration was viewed as an extension of import-substitution industrialization at the regional level.

In a discussion of the welfare economics of preferential trading arrangements, they show that a preferential approach to trade liberalization may not increase welfare. For a small country, unilateral trade liberalization will be superior to a preferential approach unless the world divides into trading blocs with mutually high barriers — in which case, a preferential approach ensures market access.

In a discussion of the welfare economics of trading blocs, they note that the move to a few trading blocs may make a cooperative solution more likely — at the same time increasing the rewards of noncooperative behavior if bargaining fails.

With an empirical evaluation, De Melo, Montenegro, and Panagariya show that — after controlling for differences in investment — countries that integrated grew no faster than their comparator group. But human capital contributes significantly to growth, suggesting benefits from regional integration arrangements that emphasize cooperation.

And there is evidence of catch-up, suggesting benefits for the least-developed members of the new wave of arrangements that emphasize North-South membership.

In short, regional integration arrangements are more likely to be a stepping stone toward a freer world trading system if GATT rules are strengthened, and if developing countries enter into arrangements with developed rather than other developing countries.

Produced by the Policy Research Dissemination Center

Regional Integration Old and New

by

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We thank Sumana Dhar and Francis Ng for excellent research support.

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I. Introduction

Regional integration (RI) is on the roll again. Powered by the perceived success of the EC, disappointment with the Uruguay round under the GATT, and by the U.S. enthusiasm for free trade areas (FTAs), regionalism is flourishing around the world. Is regionalism here to stay this time or likely to subside as in the sixties? Is this new regionalism similar to previous one in terms of objectives and characteristics? Is it likely to raise world welfare? And is it likely to lead to a fragmentation of the world trading system into inward-looking blocs or is it likely to facilitate the process of multilateral trade negotiation? This paper attempts to address these questions.

Interest in bilateral or plurilateral approaches to trade policy is not new. The move towards an open trade regime in Europe in the second half of the nineteenth century was led by a series of bilateral treaties that started with the Anglo-French accord of 1860. An important element of that accord was the inclusion of an unconditional Most-Favored-Nation (MFN) clause which, not only eliminated the need for renegotiation in the event that either country lowered tariffs with third countries, but also preserved equal access of both countries in each other's markets. In implementing the treaty, Britain extended its own tariff reductions to other countries while France adopted a two-tier tariff structure, lowering tariffs only on British goods. Much as the stampede that followed the recent initiative for a free trade area (FTA) between the U.S. and its neighbors, other European countries rushed to seek agreements with France to secure access for their own goods in the French market.

More recent history has also witnessed spurts in regionalism. In the post WWII period, during the fifties, at the same time that trade liberalization was negotiated multilaterally, regionalism led by European arrangements spread across Latin America, Africa, and the Middle East. After

laying dormant throughout the seventies, it made a comeback in the eighties. The process has heated up in the early nineties with new initiatives almost every month.[1]

The recent initiatives at RI suggest that the world trading system may be getting divided into three trading blocs built around the EC, the U.S., and Japan (the "triad"). To some, this development is a move towards a less fragmented world trading system, while to others, it is a threat to multilateralism. In this latter view, regionalism distracts negotiators and politicians from the difficult task of reaching agreement in the GATT negotiations, and serves as a substitute rather than a complement to multilateralism.

In evaluating this new wave of regionalism, one must first recognize that conditions are different today from those during the regionalism of the sixties. Not only is world trade substantially freer now than then, but also there is a very different perception, at least among the developing countries that are engaging in RI. Then, the goal of the G-77 was import-substitution industrialization (ISI) by closing their markets to developed-country exports. Today, most developing countries are independently engaging in substantial unilateral trade liberalization (UTL), and often applying simultaneously for GATT membership. This time around, developing countries are seeking to associate with large developed-country partners to insure market access. As a consequence, today's RI has a different face. In some cases, it is of the North-South variety rather than of the North-North and South-South variety which were the predominant arrangements of the first wave of RI.

The main post WWII RI arrangements, old and new, are introduced in section II. Our discussion there shows that, of the first wave of RI, only European integration -- which took place against a backdrop of significant multilateral trade liberalization -- was "successful". By contrast, RI

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[1] In 1992 alone, ASEAN was revived with the goal of reaching FTA status and, independently of their application for EC membership, Czechoslovakia, Hungary and Poland engaged talks to form an FTA.

among developing countries was a failure, both in terms of implementation, and in terms of the stated objectives of accelerating the pace of industrialization by raising intra-regional trade.

Building on the description of RI schemes in section II, sections III and IV deal with the welfare economics of RI. The question to be answered is whether RI will lead to improved welfare (i) taking the rest of the world as given and (ii) assuming that the rest of the world, too, will engage in regionalism and be divided into trading blocs. We address in section III, the first issue in terms of a discussion of the classic Vinerian terminology of trade diversion and trade creation. The discussion of the second issue, in section IV, is more speculative since just about any outcome is possible depending on the strategic interactions among actors. Because it is so important, however, we discuss the potential gains and losses that are likely to be faced under different assumptions about trading blocs.

The discussion in section V turns to a broad evaluation of RI arrangements. After comparing indices of openness before and after integration, we ask whether performance, broadly measured in terms of growth, was higher in groups of countries that integrated than among comparator control group countries that did not. We ask three questions: did countries that integrate grow noticeably faster? Was any difference in growth attributable to differences in investment? And third, controlling for differences in investment, was there still any significant difference in growth?

To anticipate our main conclusions, we argue that one must judge the new wave of regionalism with caution. First, insofar as there is a renewal of interest in RI among developing countries, as there is presently in parts of Latin America (e.g. the Mercosur) and throughout parts of Africa and Asia, there is likely to be at most few benefits, and perhaps high costs unless these arrangements are accompanied by substantial UTL. Second, for the arrangements that involve developing countries -- including the former East European countries -- associating with large developed-country members, there are likely to be other benefits that are often overlooked in the

narrow economic assessments. These include catch-up, partly cooperation leading to greater technological transfer and the more rapid development of human capital. There should also be benefits coming from an increase in the confidence that macroeconomic policies will be more reasonable in the less-developed member, and that the reforms undertaken to reach an agreement or to accede to membership will stick.[2] Third, the recent initiatives among developed countries have addressed issues that have not been dealt with effectively within the multilateral process of the GATT (e.g. government procurement policies, standards and competition policies, etc.). Fourth, there is a real danger, however, that blocs might become inward rather than outward-looking, which would be very costly for the developing countries that do not belong to one of the blocs as they would, in effect, be denied market access. This fear goes a long way in explaining the recent moves among developing countries in trying to ensure market access in the markets of their developed-country partners.

II. A Synopsis of Regional Integration Schemes

Tables 1 and 2 respectively, describe the first and second waves of RI arrangements for those that ultimately led to a share of intra-regional exports in total exports in excess of four percent of total exports. A host of African schemes that were signed but eventually led to no significant trade are not reported.[3] For each scheme, we list year of foundation, and number of members. Also, next to the

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[2] Institutional aspects of RI are developed at greater length in de Melo, Panagariya and Rodrik (forthcoming).

[3] The criterion is arbitrary and omits some schemes whose goals were cooperation rather than establishing an FTA or a Customs Union (CU) (e.g. the Indian Ocean Commission) and a few others, mostly in Africa, that were not natural trading partners and never gained any momentum in intra-regional trade (e.g. the Communaute Economique des Pays des Grands Lacs, the Mano River Union).

name, we report a few useful characteristics: combined GDP (in 1985 dollars); total population and a measure of income disparity among members.[4] The column "comments" gives broad targets, instruments, achievements, and difficulties.[5]

Table 1 highlights a sharp contrast in implementation record between North-North RI schemes on the one hand, and South-South schemes, on the other. Implementation was by and large successful for developed-country RI arrangements (although it could be argued that the goal of a common market reflected in the 1957 Treaty of Rome is yet to be reached). By contrast, by and large, implementation was unsuccessful for developing-country RI schedules. Several implementation difficulties are noted in the "comments" column. First, reductions of trade barriers among members was often postponed or delayed because the process lacked automaticity ("positive" lists, restrictive rules of origin for the coverage of products eligible for preferential tariffs, etc.). And, in the cases where implementation was fairly successful (e.g. the CACM), macroeconomic difficulties in the eighties led to the imposition of QRs. Second, when the establishment of a CU was the target, implementation of a Common External Tariff (CET) was often difficult to achieve in part because

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[4] Whenever members leave/join, latest membership is indicated [e.g. EC (12), EFTA (7)]. All figures in this table, and in the rest of the paper, are from Heston and Summers (1991).

[5] "Natural trading partners", an indication that members are likely to have benefitted (compared with the ex-ante status quo) is only mentioned when members have highly integrated transport networks and similar production structures thereby giving scope for the expansion (contraction) of relatively efficient (inefficient) industries. On why SSA countries are not "natural trading partners" see Stolper and Deardorff (1991). They argue that much smuggling and unrecorded trade takes place among SSA countries because countries and borders are organized along North-South routes while natural routes to minimize transport costs are organized along East-West lines. Under such circumstances, they show that unrecorded trade is likely to be welfare increasing. Also, there is no mention is made of "trade-creation" or "trade-diversion" effects unless these are widely recognized to be significant, and there is general agreement as to their direction. For example, there is no entry for the CACM or for the Canada-U.S. FTA in spite of numerous studies. This is because of indecisive (and/or controversial) findings. [See Whalley (forthcoming) table for a comparison of the results of the welfare estimates of the Canada- U.S. FTA, and Langhammer and Hiemmenz (1991) tables 4 and 5 for a survey of the results of estimates of trade creation and trade diversion and of the training ground argument for developing countries.]

Table 1: First Wave Regional Integration Arrangements

Name (Population, YPC, GDP, sdv) a/	Acronym (Year of foundation; number of members)	Emphasis	Comments: (approach, achievements, delays)
Africa			
Communauté Economique de L'Afrique de L'ouest (32.0; 916; 29.3; 34530)	CEAO [1972, (1974); 7]	FTA	Members belong to the Western African Monetary Union (WAMU) and to ECOWAS. Community Development Fund to compensate members for loss of tariff revenue. For compensation reasons, the structure was tailored to accommodate higher protection for the least developed.
Economic Community of West African States (130.8; 1260; 164.7; 37655)	ECOWAS (1975; 16)	FTA	Most ambitious (full economic integration within 15 years). Little progress in liberalizing trade (fear of large revenue losses and high transitional costs from restructuring insufficiently compensated by access to the Community's fund). Progress also retarded by QRs. Legal and institutional weakness and controversial rules of origin (by ownership structure rather than value-added).
Customs and Economic Union of Central Africa (14.7; 1071; 15.7; 32947)	UDEAC [1973 (6)]	CU	Treaty called for a CU but CET was abandoned de facto. Intra-union trade in manufactures restricted to those produced by firms enjoying the status of the Taxe Unique System.
South African Customs Union (24.0; 3883; 9.3; 2148.6)	SACU (1969; 4)	CU	Includes South Africa. In existence since 1910. Goods and factor markets well integrated. CET operational.
South African Development Coordination Conference (60.0; 924; 55.4; 34147)	SADCC (1980; 10)	Coordination and Cooperation	To reduce economic dependence on South Africa through cooperation on projects to foster balanced regional development. Successful in mobilizing donor support and in implementing transport and communications projects. New emphasis on investment in production.

Table 1: First Wave Regional Integration Arrangements (continued)

Name (Population, YPC, GDP, sdv) a/	Acronym (Year of foundation; number of members)	Emphasis	Comments: (approach, achievements, delays)
Asia			
Association of South East Asian Nations (189.4; 1027; 194.4; 102305)	ASEAN (1967; 5)	FTA	Initial objective to promote regional peace and stability and cooperation and accelerate growth through cooperation via implementation of industrial projects and a FTA. Minimal intra-trade liberalization and little coordination of industrial projects. Effective in promoting political stability and diffusing territorial and ethno-political disputes.
Europe			
The European Communities (160.1; 3556; 569.3; 90446)	EC (1952, 12 as of 1986)	CM	All tariffs and QRs on intra-EC trade eliminated by 1968. CAP very restrictive.
European Free Trade Association (27.9; 6106; 170.3; 145812)	(1960; 7 as of 1991)	FTA	Elimination of all tariffs on manufactures by 1967. More highly integrated with EC (50% of EFTA total trade; intra-trade share of 25%) than among themselves. Special rules for agricultural trade.
Latin America			
Andean Subregional Integration Agreement (57.2; 3014; 172.4; 118915) reliance	Andean Pact (AP) (1969; 5 since 1976)	CU and industrial planning	Grew out dissatisfaction of unevenly distributed gains under LAFTA. Until recently (1990), philosophy of self-based on ISI with priority of industrial planning over trade liberalization. Implementation of a MCET (1980) was delayed. Discouragement of FDI in 1971.
Central American Common Market (11.2; 1519; 17.0; 19658)	CACM (1960; 5)	CU and industrial planning	Goal to promote ISI. Included regional payments system. Barriers to intra-regional trade lifted by 1971 with high CET (106% tariff on consumer goods; 36% intermediates; 11% capital goods). CET not in effect for all partners. Industrial planning failed. Fiscal problems due to revenue loss. With onset of macro difficulties, introduction of QRs in 1980s.

Table 1: First Wave Regional Integration Arrangements (continued)

Name (Population, YPC, GDP, sdv) a/	Acronym (Year of foundation; number of members)	Emphasis	Comments: (approach, achievements, delays)
Caribbean Community (3.4; 4472; 15.2; 64145)	CARICOM (1973; 13 since 1983)	CU	In practice, non-tariff barriers have often been used against intra-regional trade and imports to different countries are subject to different tax rates (including tariffs, surcharges, and stamp duties). Recent attempt to increase compliance with the CET.
Latin American Integration Association (184.4; 2213; 408.1; 118915)	LAFTA/LAIA (1960)/(1980)(;11)	FTA	Liberalization by positive lists (national lists, common lists). Weighted average preferential tariff margin on intra-regional trade reached 22% by 1969. Intra-regional trade expanded mostly for manufactures (see Erzan and Yeats, 1992).

Source: de la Torre and Kelly (1992), Nogues and Quintanilla (forthcoming), Foroutan (forthcoming), and authors' comments.

Notes: Figures in brackets next to year of foundation indicate the year the arrangement went into effect. All income figures are in $1985. at the time the economic unit was in effect.

Abbreviations:

FTA = Free Trade Area; CU = customs union; CM = common market. ISI = import substitution industrialization; MCET = minimum common external tariff (CET).
FDI = Foreign direct investment; CAP = common agricultural policy;
EEA = European Economic Area.

a/ Population in millions; income per capita (YPC) in $ 1985; GDP in $ billion, 1985; SDV = standard deviation of income per capita.

members often sought exemptions from external tariffs (e.g., for "necessary" imports from outside the region). Third, industrial planning failed, as satisfactory mechanisms to determine "equitable" allocations of industries across members could not be devised (at most a handful of firms/projects qualified in the ASEAN, CACM, and LAFTA schemes). Finally, efforts at allowing freer intra-union factor mobility (ECOWAS, CEAO, GCC) were only partially implemented.

Perhaps the most important cause of failure was the difficulty in devising satisfactory compensation schemes for losers. While the political economy of compensation always makes it difficult to settle upon satisfactory schemes to all partners, especially when negotiation takes place between countries, the need to deal with compensation was far more pronounced among developing countries than among developed countries. This is because the need to relocate to new activities was not so pronounced among developed countries as the increase in intra-regional trade was mostly the result of an increase in intra-industry trade whereas among developing countries, any increase in intra-regional trade would have tended to be of the inter-industry type which requires more adjustment assistance for compensation.[6]

The more recent arrangements initiated in the eighties, and those under consideration are shown in table 2. It is clear from the list of members that there is generally more diversity among members than in the first wave of RI. The comments also suggest that the emphasis has changed. First, arrangements among industrial countries (ANZCERTA, EC, EFTA, US-Canada FTA) have gone beyond trade liberalization in goods that are the subject of GATT negotiations by including some liberalization in services and investment,technical and regulatory standards (e.g. the pro-competition policy to be implemented under EC-1992), as well as customs formalities and government

[6] For a discussion of some of the difficulties in implementing compensation schemes in Africa, see Foroutan (forthcoming).

Table 2: Second wave regional integration arrangements

Name (Population, YPC, GDP, sdv) a/	Acronym (Year of foundation; number of members)	Emphasis	Comments: (approach, achievements, delays)
Preferential Trade Area for Eastern and Southern Africa (180.0; 695; 125.1; 4205.8)	PTA [1982 (1984); 18]	FTA	Trade liberalization by a positive list with rules of origin combining a local value added criterion (not more than 60% imported inputs) with local ownership (over 50%). Time-table of gradual tariff reduction started in 1988 with zero tariffs by 2000. Difficulties due to macroeconomic imbalances and the equitable distribution of costs and benefits.
Australia-New Zealand Closer Economic Relations Trade Agreement (18.5; 11164; 206.5; 107086)	ANZCERTA (1983; 2)	FTA	Elimination of all tariffs by 1988 and all QRs by 1995 with only a few agricultural and industrial support measures to remain. In 1988, agreement for liberalization of trade in services and harmonization of regulatory practices.
Canada-U.S. Free Trade Agreement (271.9; 18141; 4932.4; 317528)	CUSTA (1987)	FTA	Average protection of 1% at time of agreement. Removal of all tariffs and most QRs within one year period. Rules of origin to determine eligibility for duty-free treatment. Also includes provisions for reciprocal opening of trade in services, government procurement and investment. No harmonization of regulatory regimes. Many exceptions (see Whalley, forthcoming).
U.S. Israel Free Trade Arrangement (243.5; 16649; 4053.9; 482798)	U.S. Israel (1985;2)	FTA	The agreement calls for the removal of all tariffs and most other forms of protection imposed by both countries on each other's products within 10 years. Implementation began on 1 September 1985 and is expected to be completed on 1 January 1995.

Table 2: Second wave regional integration arrangements (cont'nued)

Name (Population, YPC, GDP, sdv) a/	Acronym (Year of foundation; number of members)	Emphasis	Comments: (approach, achievements, delays)
Single market program	EC (1992)	CM	Common market by January 1993. Single market program still requires harmonization of indirect taxation, free movement of people and the treatment of imports of sensitive sectors (e.g. autos). Mutual recognition of national standards within EC could act as barrier to third countries if they are not allowed single-point access to the EC.
European Economic Area	EEA (1991)		Extends provisions of "EC 1992" to EFTA. Single European Act (1987) to eliminate segmentation caused by regulatory barriers by 1993. Bilateral FTAs with EC and signing of EEA in 1991 leading to adoption of EC laws.
Argentina-Brazil-Paraguay-Uruguay MERCOSUR	MERCOSUR (1991)	CM	
Under Consideration b/			
Bulgaria, Czechoslovakia, Hungary, Poland, Israel with EC			Membership
Eastern Europe with EFTA		FTA	
Canada-Mexico-US	NAFTA	FTA	Free trade area
Enterprise for the Americas Initiative	EAI	Hemispheric FTA	As of October 1991, framework agreement signed with 29 countries.

a/ Population in millions; income per capita in $ 1985; GDP in $ billion, 1985; sdv = standard deviation of income per capita.

b/ Partial list. For a more complete list of recent initiatives, see de la Torre and Kelly (1992, tables 1 and 2). For further description of initiatives in Latin America, see Nogues and Quintanilla (forthcoming).

procurement policies. Second, the recently signed agreements under the Enterprise for the Americas Initiative (EAI) among Latin American countries -- which can be seen as steps towards a hemispheric FTA -- are quite distinct from past arrangements since they are outward- rather than inward-oriented. These initiatives go beyond a revival or extension of existing schemes as virtually all participants have independently carried out significant UTL.[7] Third, as mentioned in the introduction, more often than not, partners in the new initiatives are from the developed and the developing world leading to North-South schemes blocs rather than to the North-North and South-South schemes described in table 1.

Table 3 contrasts general differences in goals and approaches to regional integration during the first wave of RI. In terms of goals, the least ambitious was Asian RI that emphasized cooperation. Also in its approach, Asian RI emphasized cooperation and was more outward-oriented than RI in Africa or Latin America. And in its approach to trade policy implementation, even though it did not rely on multilateralism, it was less discriminatory towards non-members, as it was accompanied by some UTL.

To conclude this brief synopsis, we report in table 4 the evolution of intra-regional trade and of a crude measure of openness (the trade-to-GDP ratio) for RI arrangements with a share of intra-regional exports above 4 percent. The sample includes four arrangements among developed countries (including the recent Canada-U.S. FTA described in table 2) and six developing-country arrangements. The figures in parenthesis indicate the evolution of each grouping's share in world trade. It is a rough measure of the grouping's influence in world trade. For obvious reasons stated in section III below, even though one might be tempted to do so, one should not interpret increases in openness or in world export share to imply net trade creation.

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[7] For a discussion of the recent unilateral measures towards trade liberalization carried out by Latin American countries, see Nogues and Quintanilla (forthcoming).

Table 3: Main Characteristics of First Wave RI Schemes: Africa, Latin America, EEC, and East Asia

Main characteristics	Africa	Latin America	EEC, EFTA	Asia
Main objectives	balanced development through ISI equitable sharing of net benefits	balanced development through ISI equitable sharing of net benefits	common market foster conditions for European political union	ease political tensions and expansion of international market shares
Trade orientation	inward-oriented	inward-oriented	multilateral liberalization	outward oriented
Mechanism	negotiated integration	negotiated integration	negotiated integration	market led integration
Approach to intra-regional trade liberalization	national and common lists of products to be liberalized industrial targeting	national and common lists of products to be liberalized (FTAs except CACM) industrial targeting	sequencing of across-the-board reduction of trade impediments harmonization of national rules for exceptions	unilateral trade liberalization
Trade strategy with nonmember countries	cooperation and regional ISI	regional ISI	negotiated liberalism with common external tariff (EC)	cooperation (ASEAN) and market-oriented liberalism
Treatment of member countries	preferential treatment of least developed member countries	preferential treatment of least developed member countries	most-favored-nation principle	non-preferential treatment
Institutional framework	no supranational entities (except	no supranational entities (with exception of Andean Treaty and Clearing House in CACM)	with supranational entities (EC)	not applicable

Sources: Authors' elaboration from Foroutan (forthcoming) and Nogues and Quintanilla (forthcoming).

Several observations are suggested from the figures in table 4. First, compared with developing countries, developed countries that engaged in RI were "natural" partners at the time they integrated. Of course these relatively high initial trade ratios (which form the base for the "triangle" calculations illustrated in figure 1) were high not only because of low transport costs but also because of higher and less dispersed incomes.[8] Also, in the case of the EC, during the first decade when all trade barriers to intra-regional trade were eliminated (by 1968), the sharp increase in intra-regional trade was also accompanied by a sharp increase in openness. The only other scheme in table 3 with a similar evolution in trade patterns during the first dec' ' it was in effect, is the CACM.

Second, developed countries experienced a sustained rise in intra-regional trade and an increase in openness suggesting that trade expansion was due to both bilateral and multilateral reductions in trade barriers. On the other hand, among developing countries, when intra-regional trade increased, the increase was usually not sustained. This suggests that little reduction in trade barriers took place. There was therefore some scope for changes in trade patterns and these were not completely rigid. It also suggests that reductions in trade barriers were often temporary, the typical example being the large decline in intra-regional trade among CACM countries in the eighties when, for balance-of-payments purposes during the debt crisis, QRs were reinstated. It is also significant that intra-regional trade among developing countries in RI arrangements was low when compared with South-South trade. Excluding (including) major oil exporters and Hong-Kong, Korea, Singapore and Taiwan, South-South trade was 17% (34%) in 1988-90 which is higher than intra-regional trade among all the groupings in table 4 except ASEAN.

Third, among developing countries, only CACM and ASEAN experienced increases in intra-regional trade comparable to those registered among developed-country groupings. Also, ASEAN is

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[8] The positive relationship between openness and income level is well-established. See, e.g. Chenery and Syrquin (1975).

Table 4: Regional Integration Schemes: Openness (OP) and Intra-Regional (IR) Exports

	Founded[a]	1960		1970		1975		1980		1985		1990	
		OP[b]	IR[c]	OP	IR	OP	IR	OP	IR	OP	IR	OP	IR
ANZCERTA	1983	30.3	5.7 (2.4)	27.8	6.1 (2.1)	26.4	6.2 (1.7)	32.1	6.4 (1.4)	33.0	7.0 (1.6)	29.7	7.6 (1.5)
EC	1957	31.3	34.5 (24.9)	41.0	51.0 (39.0)	48.0	50.0 (35.9)	55.0	54.0 (34.9)	51.7	54.5 (35.6)	46.5	60.4 (41.4)
EFTA	1960	37.3	21.1 (14.9)	39.9	28.0 (14.9)	48.3	35.2 (6.3)	57.4	32.6 (6.1)	59.0	31.2 (6.3)	52.6	28.2 (6.8)
Canada-US-FTA	1989	8.8	26.5 (21.9)	10.7	32.8 (20.5)	16.1	30.6 (16.8)	20.8	26.5 (15.1)	17.4	38.0 (16.7)	19.5	34.0 (15.8)
ASEAN	1967	36.6	4.4 (2.6)	46.0	20.7 (2.1)	58.2	15.9 (2.6)	73.6	16.9 (3.7)	64.0	18.4 (3.9)	97.5	18.6 (4.3)
ANDEAN PACT	1969	37.2	0.7 (2.9)	30.6	2.0 (1.6)	40.5	3.7 (1.6)	40.3	3.8 (1.6)	29.4	3.4 (1.2)	32.5	4.6 (0.9)
CACM	1961	33.7	7.0 (0.4)	43.4	25.7 (0.4)	55.0	23.3 (0.3)	53.7	24.1 (0.2)	32.5	14.7 (0.2)	42.?	14.8 (0.1)
LAFTA/LAI A	1960/80	21.0	7.9 (6.0)	17.7	9.9 (4.4)	20.8	13.6 (3.5)	21.9	13.7 (4.2)	22.1	8.3 (4.7)	19.4	10.6 (3.4)
ECOWAS	1975	n.a.	n.a. n.a.	37.4	3.0 (1.0)	42.3	4.2 (1.4)	44.4	3.5 (1.7)	32.2	5.3 (1.1)	52.6	6.0 (0.6)
PTA	1987	n.a.	n.a. n.a.	56.1	8.4 (1.1)	51.7	9.4 (0.5)	47.8	8.9 (0.4)	37.9	7.0 (0.3)	50.2	8.5 (0.2)

For definition of RI schemes, see appendix table A1.

a. Year the arrangement went into effect if different from year of foundation. Ratios refer to number of members in year of calculation [e.g. EC (6) in 1970, EC (9) in 1975].

b. Openness measured by the trade/GDP ratio.

c. Intra-regional trade measured by share of intra-regional exports in total exports (share of RI scheme in total world exports in parenthesis).

Source: IMF Direction of trade.

the only developing-country grouping that sustained an increase in intra-regional trade while also increasing its share in world exports. In the case of CACM, unlike other developing-arrangements, an across-the-board approach to trade liberalization was carried out. This is the approach that was adopted among developed-country arrangements. Avoiding the product-by-product approach typical of other developing country schemes avoided the decline in trade with the outside world and also helped promote internal trade, confirming the practical wisdom of GATT article XXIV which requires countries forming an FTA or a CU to substantially liberalize all trade flows.[9]

Insofar as one of the main goals of the early RI schemes among developing countries was to industrialize by increasing intra-regional trade, it is clear that the goal was not achieved. There are many reasons for this -- including those relating to their relatively rigid trade and production structures -- but one major reason was implementation failure.

III. The Welfare Economics of Preferential Trading Arrangements[10]

1. Efficiency Implications

The figures in table 4 show a large increase in trade for the EC and EFTA following integration and little increase in intra-regional trade for developing-country RI schemes. Above, we attributed these differences to implementation. But there are other reasons as well. Consider the standard analysis of an FTA. Figures 1 and 2 show the general equilibrium import-demand and export-supply

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[9] This point made in Wonnacott and Lutz (1988, p. 77). Also note that ASEAN adopted a product-by-product approach. The reason for the increase in openness of ASEAN countries is that they simultaneously liberalized unilaterally. The sharp increase in trade among ASEAN partners was due mostly to sub-contracting.

[10] This section draws on de Melo, Panagariya and Rodrik (1992).

curves in the proverbial two-good, three-country model. A and B are potential partners in an FTA and C represents the outside world.

Consider first the case representative of many FTAs in developing countries during the first wave of RI. In that case both will export good 2 (coffee) and import good 1 (steel) from C and there will be no trade between them in the initial equilibrium. If the tariff on C remains unchanged, the FTA will be vacuous (the same outcome would occur if B were the low cost supplier). This case explains why there has been so little increase in intra-regional trade among developing countries.

Consider now the efficiency effects by allowing A and B to import different goods (A imports good 1 and B exports it). We are primarily interested in the welfare of A and B. A and B form an FTA. In figure 1, we illustrate the constant cost case, and in figure 2, the case of increasing costs in the partner, B. Start with the constant costs case. Assume that initially A levies a uniform tariff at rate t^A on imports from both B and C. All imports come from C with gains from trade represented by the area MHP^c. Let A form an FTA with B. Imports from B are freed of the duty while those from C continue to be subject to the tariff at rate t^A. We have a "sudden death" of imports from C and all imports switch to B. There are two analytically separate effects: A's terms of trade deteriorate and the distortion between the domestic and (new) border price disappears. The former effect is harmful while the latter is beneficial. The net effect of the FTA on A is ambiguous. As regards B and C, given constant costs, they neither gain nor lose. This means that the welfare effects of the FTA on the union as a whole, and on the world, move in the same direction as its effects on A.

To see the effects on A, observe that the tariff revenue disappears after the formation of the FTA. A part of this lost revenue is captured by A's consumers via a lower domestic price of imports; the remainder, represented by area $p^b p^c G K$ in Figure 1 pays for the inefficiency of B and is lost to A as well as to the world as a whole. At the same time A makes a gain, represented by

Figure 1: Constant Costs

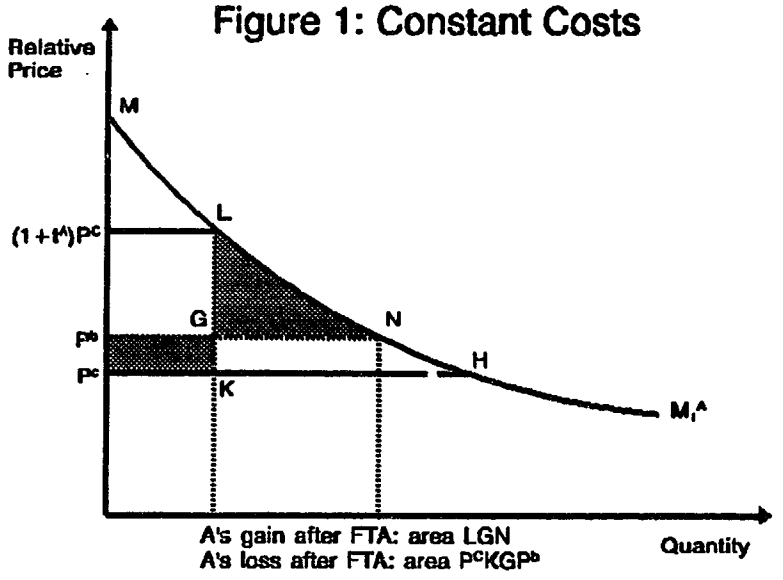
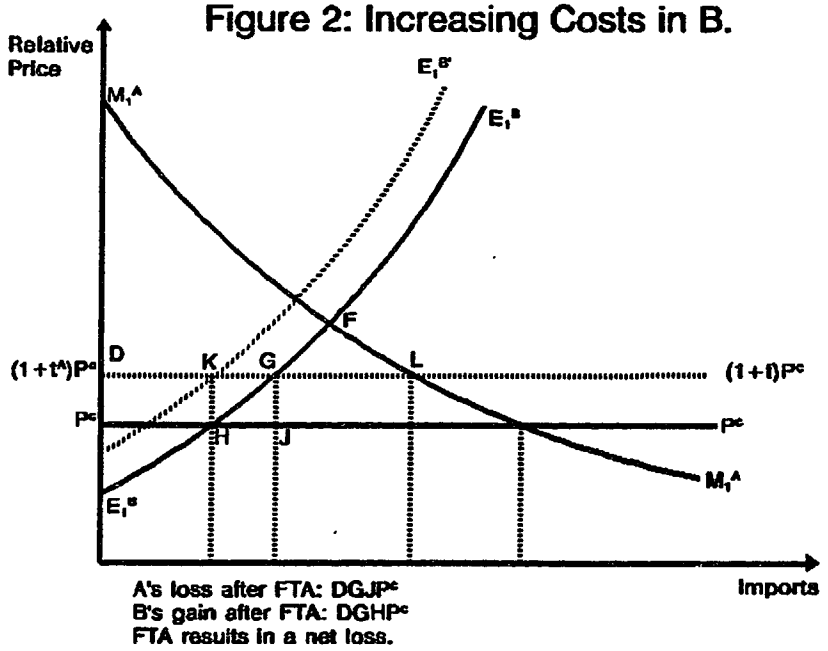


Figure 2: Increasing Costs in B.



area GLN due to a contraction of domestic output and an expansion of consumption. The net effect depends on the relative size of these two shaded areas. In terms of Viner's terminology, the FTA just described is trade diverting (because low cost imports from C are replaced by imports from B). Yet, the net effect of the FTA on welfare is ambiguous.

Figure 1 indicates that an FTA is likely to raise efficiency: (i) the more elastic A's import demand at the initial equilibrium, L; (ii) the higher the initial tariff; and (iii) the smaller the difference between costs in B and C. If one applies these conditions to an evaluation of the first wave of RI schemes when initial tariffs were high all-around, it is clear that a priori, one would expect FTAs to raise (lower) efficiency for developed (developing) country schemes. This is so because of relatively low import demand elasticities in developing countries and relatively large differences in cost structures with non-partner (developed countries) for developing countries.

Allow now for increasing costs in B.[11] In figure 2, B's export-supply curve is now positively sloped. In the initial equilibrium, both B and C are subject to the tariff t^A and their supply curves as perceived by residents of A are shown by dotted lines. Total imports into A are DL of which DK come from B and KL from C. Introduction of the FTA pushes B's export-supply curve to the solid line and its exports expand at the expense of C. There is no "sudden death" of imports from C in this case. The reason is that at C's tariff inclusive price, B is unable to satisfy A's entire demand. The result is no change in A's domestic price and hence no efficiency improvement. At the same time, tariff revenue on imports from B is lost. A's welfare declines unambiguously.

A key point which emerges from Figure 2 is that a necessary <u>but not sufficient</u> condition for an FTA to improve A's welfare is that it cause a "sudden death" of imports from C. This condition is satisfied when the initial tariff is sufficiently high to place C's tariff inclusive price above point F in

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[11] This model was analyzed originally by Vanek (1965) and developed further by Kemp (1969).

Figure 2. In this case, an FTA lowers the domestic price of importables in A and generates positive efficiency effects. These effects must be weighed against the revenue lost from the FTA. Welfare is more likely to improve under conditions (i) to (iii) above.

What is the effect of the FTA on B's welfare? B's gains from trade are given by the area above its export supply curve and below the selling price. Initially, B receives the price P^C and sells DK; its gains from trade are $P^C HE_1^B$. After the formation of the FTA, it receives the price $(1+t^A)P^C$ and sells DG; it gains from trade rise to DGE_1^B . The FTA yields an unambiguous gain to B equal to $DGHP^C$.

In the case depicted in figure 2, the union as a whole and the world are worse off after the formation of the FTA. This is seen by the fact that A's loss, $DGJP^C$, is larger than B's gain, $DGHP^C$. Intuitively, with no change in the price in A after the formation of FTA, there are no efficiency gains in that country. At the same time, the FTA encourages inefficient production in B. Specifically, the cost of imports HJ from B exceeds the cost of obtaining the same imports from C. Overall efficiency in A and B, and hence the world, declines.[12]

Does this more realistic case -- in which there is no "sudden death" of imports from the C -- suggest that an FTA is likely to reduce global efficiency? In an important paper, Kemp and Wan (1976) show in a standard model, similar to the one developed above, that one can always design a welfare improving FTA. This is because one can choose a common set of tariffs in such a way that

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[12] Figure 2 also sheds light on the relationship between the initial level of trade between partner countries and the welfare effects on individual countries. Ceteris paribus, the larger the proportion of A's trade coming from B initially, the greater the loss to A from the FTA. Essentially, the loss to A is equal to the tariff revenue collected on imports from B which is larger the larger the imports from B. This observation casts some doubt on the popular argument that potential losses to Mexico from an FTA with the U.S.A. are small because much of its trade is already with the U.S.A. What the larger initial volume of trade guarantees is smaller losses for the union as a whole and not for each partner.

the external terms of trade (and hence the quantities traded with the outside world) remain unchanged, while internal trade is rearranged to maximize the gains from the FTA.[13]

Another important qualification to the results in figure 2 -- and relevant to most first wave RIs described in table 1 where tariff reduction among partners was almost invariably partial -- is that a preferential trading arrangement (PTA) is superior to a FTA. The intuition behind this typical second best result due to Meade (1955) -- in a slightly augmented model with three goods and symmetric trade patterns -- is that as tariffs are progressively lowered on partner imports, marginal gains decrease, while simultaneously the wedge on imports from the non-partner increase. Hence a PTA which does not eliminate entirely tariffs among partners is superior to a FTA. Should this result be taken to suggest that first wave RIs among developing countries were efficiency enhancing? Certainly not since these FTAs were riddled with long exception lists and compensation mechanisms that in effect prevented inefficient industries from closing down.

2. Rationale for RI Integration

So far, in terms of efficiency, there is nothing in the previous analysis of FTAs that would suggest that a preferential arrangement would be superior to UTL in which trade liberalization is extended to all trading partners. Yet, two reasons have often been advanced in favor of RI: market access and economies of scale. We will examine the problem of market access in the discussion of trading blocs below. Now we discuss briefly why during the first wave of RI arrangements, many economists relied on the notion that FTAs and CUs as vehicles for the exploitation of economies of scale. This emphasis is interesting, since scale economies by themselves do not provide a rationale

[13] de Melo, Panagariya and Rodrik (1992) extend this result to the relevant case of reductions in QRs, so common among developing countries.

for regional integration. What they do is to strengthen the case for FTAs based on other reasons.[14] The missing link is a non-economic objective, in this case industrialization, which was viewed as a goal in much discussion of the effects of integration during the first wave of RI. Cooper and Massell (1965), showed that if industrialization is an objective, then economies of scale does provide a rationale for RI over a UTL approach. Thus, if a case for regional integration exists for other reasons, as in the Cooper-Massell case, scale economies generally reinforce it. This is perhaps the reason why economies of scale are often a part of the case for FTAs and CUs.

Consider first the case of an import substitution objective involving a target level of industrial output which corresponds to the "training grounds" argument advocated by proponents of early RI schemes among developing countries. Suppose that both A and B have a target level of aggregate import-competing industrial output. Then the two countries could benefit from an FTA which enables them to specialize within their industrial sector according to their comparative advantage and keep the level of industrial imports from C fixed.[15] The reason for this result follows from the Kemp-Wan theorem and does not rely on economies of scale. If scale economies are present, however, the gains from specialization are likely to be larger. In the presence of scale economies, gains from specialization consist of larger rectangular areas rather than conventional triangular areas which tend to be small.

Consider next the case when, due to tariffs and transport costs, the price at which A and B can buy a good from C is higher than that at which they can sell the same good to the latter. We

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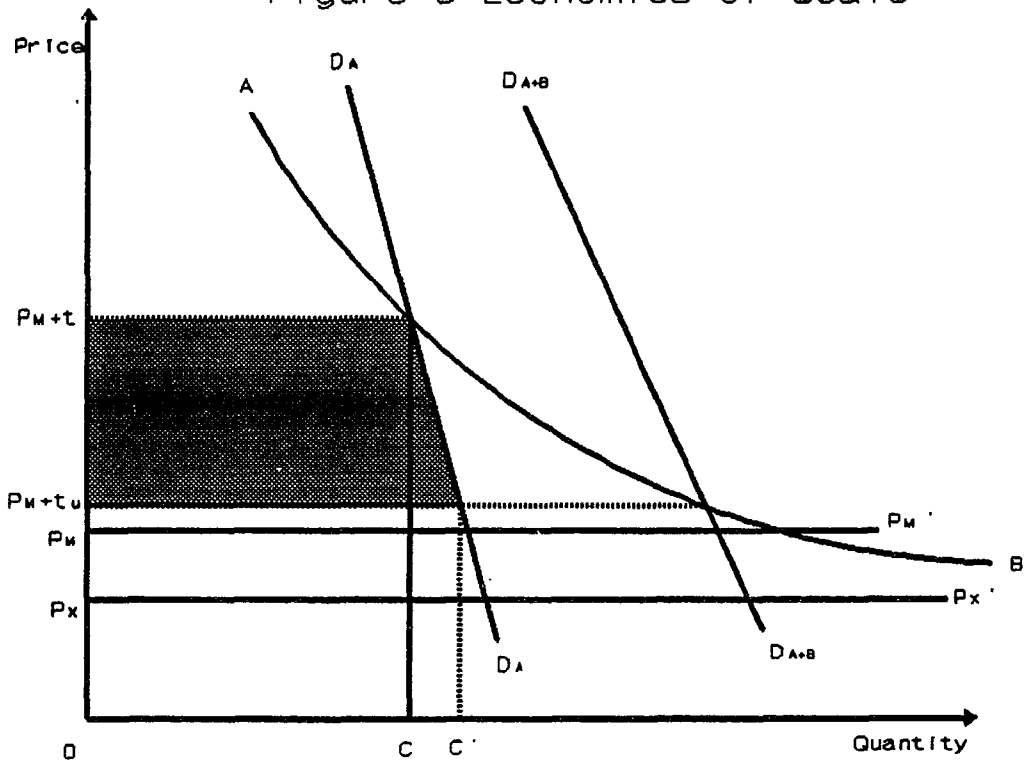
[14] Under the standard small country assumption, UTL is likely to dominate FTAs even in the presence of scale economies. Intuitively, if the minimum cost of production of a good along the long-run average cost curve is below the world price, both potential partners in the FTA should produce the good up to the minimum cost point. They should then consume domestically as much as is demanded at the world price and export the residual. Goods for which minimum cost is above the world price should not be produced. Free trade will generally ensure these outcomes.

[15] See Cooper and Massel (1965b) and Bhagwati (1968, 1990) on this.

now incorporate declining costs into this argument and show that gains from an FTA are likely to be larger in this case. Assume perfect initial symmetry between A and B. Specifically, they face the same unit cost curve and demand for the commodity under consideration. In Figure 3, taken from Corden (1972), AB is the unit cost curve, D_AD_A is the demand in A and $D_{A+B}D_{A+B}$ is the horizontal sum of demands in A and B. As drawn, D_AD_A lies half way between the vertical axis and $D_{A+B}D_{A+B}$. The price at which A and B can import the good from C, P_M, is higher than the price at which they can export it to the latter, P_x. The difference between P_M and P_x is accounted for by transportation costs and tariffs levied by C. In the initial equilibrium, both A and B employ made-to-measure tariffs which raises the domestic price just enough to make domestic production competitive with imports from C. In Figure 3, the tariff inclusive price in the initial equilibrium is given by P_M+t. Both countries produce the good in quantities (OC) just enough to satisfy domestic demand.

Now consider a CU between A and B which eliminates tariffs on intra-trade and replaces the old made-to-measure tariff, t, by a union-wide made-to-measure tariff, t^U. Only one of the two countries, say A, will produce the good in the post-union equilibrium. Both production costs and consumer price will decline to P_M+t^U. Each country will expand consumption from OC to OC' and make a welfare gain equal to the shaded area enclosed within the pre- and post-union prices and the demand curve. Unlike the usual triangular gains under increasing costs, the FTA yields gains comprising a rectangle and a triangle. These gains can be further multiplied if there are many goods subject to scale economies. For example, if there are two goods subject to increasing returns, each partner can specialize in one of them and obtain the other from the partner at a lower cost.

Figure 3 Economies of Scale



IV. Bargaining, Trading Blocs, and Market Access

So far we have not considered the possibility that an FTA or a CU can raise the bargaining power of the Union. The terms of trade of union members depend not merely on their external tariffs, but also on tariffs imposed on them by the outside world. To the extent that the level of these tariffs can be influenced through bargaining, an FTA which increases the joint bargaining power of member countries can confer further gains on the latter. Interestingly, unlike the first type of gains, these gains need not come at the expense of the outside world. The union as well as the outside world may benefit from mutual tariff reduction.

Probably the existence of the EC has helped Western European countries to negotiate better deals with the U S. in bargaining tariff reductions than if they had dealt individually with the U.S. More recently, the restraint shown by the U.S. towards EC in using Super 301 threats is a direct result of the EC's ability to inflict injury on the U.S. through retaliation. By contrast, the U.S. has used this instrument with relative ease against individual countries such as Japan, Brazil and India.

By contrast, economic unions in Africa and Latin America were much too small relative to their counterparts in the developed world (see table 4 above). As a result, any expectations of these countries regarding benefits from joint negotiations with the U.S. and the EC were bound to result in a disappointment. In the absence of non-economic objectives, UTL is not merely superior to an FTA or a CU but it actually enables a country to attain the maximum income possible. This fact has led several authors to argue that an FTA or a CU offers nothing to a small country that it cannot achieve on its own through UTL.[16] An obvious implication of this argument for many small economies in

[16] For example, see Cooper and Massell (1965), Johnson (1965), Berglas (1979) and Robson (1980). Additional references can be found in Wonnacott and Wonnacott (1981).

Africa, Asia, and Latin America is that they are better off liberalizing trade unilaterally rather than engaging in regional arrangements.

The UTL argument is undoubtedly powerful. But suppose that the developed and newly industrialized countries are divided into three blocs: North America, Western Europe and East Asia. Also suppose that each one of these blocs allows free internal trade but imposes high duties or voluntary export restraints on extra-bloc imports. Under these circumstances, will developing countries in Africa, Asia and Latin America benefit more from UTL or from joining one of the blocs? Common sense dictates that the latter option is likely to be welfare superior since it guarantees market access, though it involves adopting and maintaining the bloc's barriers to trade with extra-bloc countries.

Wonnacott and Wonnacott (1981) recognize that the conventional literature on FTAs fails to take into account transport costs and trade restrictions imposed by partner countries and, more importantly, by the outside world. Once these restrictions are taken into account, it is entirely possible for an FTA to be superior to UTL. In the above example of trading blocs, UTL may fail to give a country access to the markets of any of the blocs. Accession to a bloc may solve this market access problem.

This raises the question of the pros and cons of a world divided into trading blocs. In the introduction, it was suggested that such a division offers advantages and disadvantages. Advantages insofar as it helps solve the free-rider problem and difficulties that of multilateral negotiations when the number of participants is large. Disadvantages insofar as a few large trade blocs may get caught into a prisoners' dilemma problem. While it would be preferable for all to cooperate, individually, each bloc is likely to take on a selfish attitude and impose restrictions.

The implications of a non-cooperative trade strategy were first explored by Krugman (1991), and, more recently, by Deardorff and Stern (1991) and Srinivasan (forthcoming). Krugman employs

a one-product monopolistic competition model in which the world consists of a large number of identical countries. Each country produces one variety of the product and, behaving as a Nash player, imposes the optimum tariff on imports from all other countries. At one extreme, in the absence of blocs, there being a large number of countries, the optimum tariff is 0 and the global optimum is reached. As blocs are created, starting from a large number of small identical blocs, tariffs become positive and welfare declines. As blocs become larger, the optimum tariff on extra-bloc countries rises. There is a trade creation and a trade diversion effect. The former results from expansion of trade among within-bloc countries while the latter follows from increased tariff on extra-bloc trade. The net effect of increasing the bloc size and reducing the total number of blocs depends on whether the trade creation effect dominates the trade diversion effect. Using simulations, Krugman finds that the net effect is negative until the number of blocs declines to 3. After that, the net effect becomes positive with welfare rising to the global maximum when the world becomes a single bloc, which represents the other extreme.

Krugman (forthcoming) goes on to show that as long as the assumed symmetry in his model is maintained, the result that the division of the world into a small number of blocs minimizes welfare is robust. For example, if the tariff rate on extra-bloc imports is held fixed or is chosen according to a more realistic model of tariff formation, the welfare minimizing number of blocs remains 2 or 3.

Deardorff and Stern (1991) take issue with Krugman and argue that his assumptions of a single product which precludes inter-industry trade entirely and of symmetry everywhere are crucial to the result he derives. Deardorff and Stern then provide alternative models in which a small number of blocs can in fact maximize welfare. In these models, countries are differentiated by factor endowments. For example, suppose there are half as many types of countries as the total number of countries. Then, if the world is divided into two identical blocs such that each block has exactly one economy of every type, gains from trade will be maximized without any inter-bloc trade.

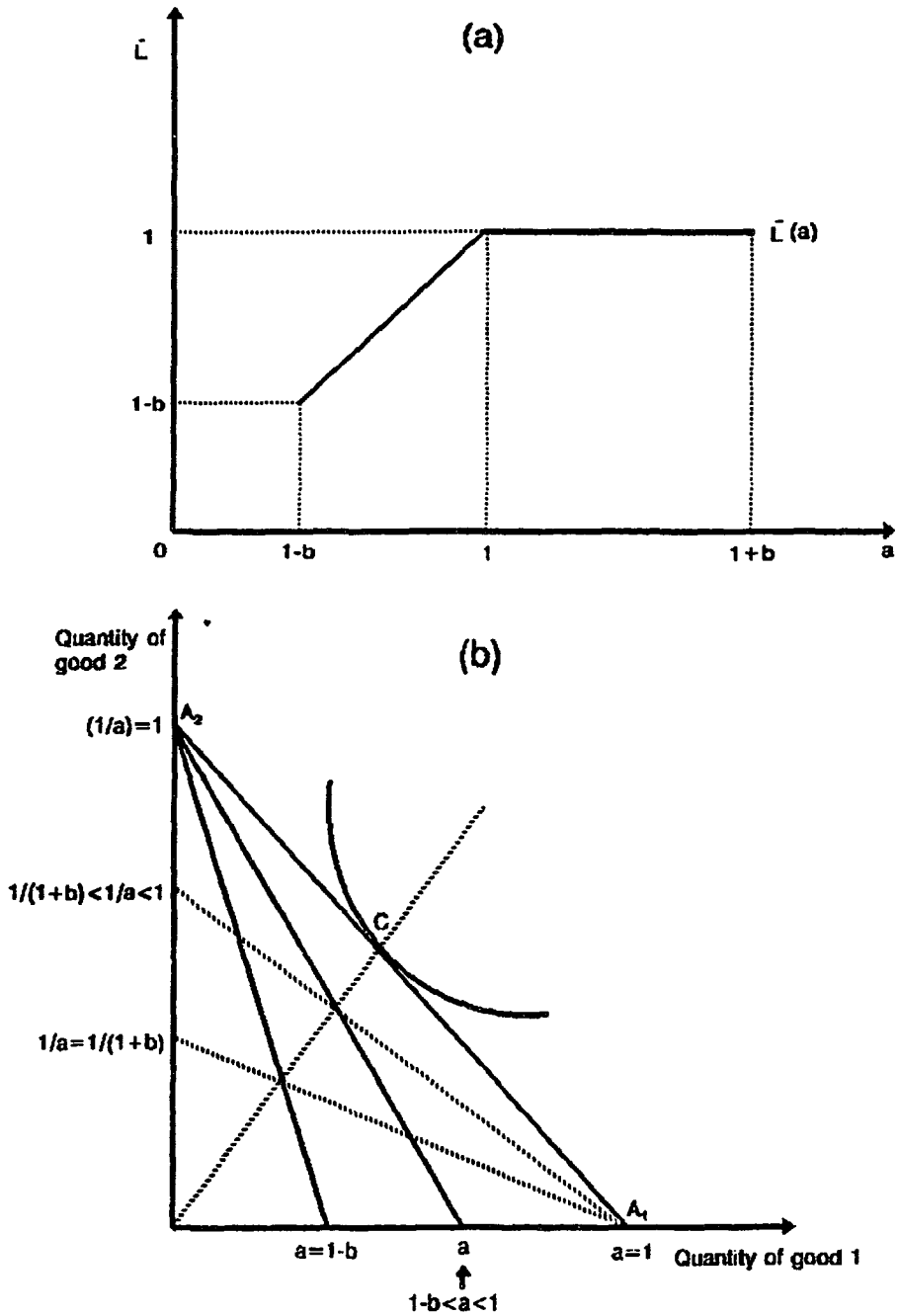
Srinivasan (forthcoming) also criticizes Krugman's model, describing it as "theory without relevance" and offers a Ricardian model of blocs with two-commodities, one factor, and a continuum of countries. The factor is called labor and goods are denoted 1 and 2. The labor to output ratio is 1 for good 1 and "a" for good 2. Coefficient a is a variable which also serves to index countries. Specifically, a is distributed uniformly over the interval (1-b, 1+b) where b is a fixed, known number such that $0<b<1$. Countries in the interval $1-b \leq a \leq 1$ have the labor endowment $\bar{L}(a)=a$ while countries in the interval $1 \geq a \geq 1+b$ have $\bar{L}(a)=1$. This is shown in Figure 4a.

For countries in the interval (1-b, 1), the labor endowment being a, the maximum possible quantity of good 1 is a and that of good 2 is 1. (Recall that the labor-to-output ratio is 1 for good 1 and a for good 2.) Thus, production frontiers of these countries pivot around point A_2 in Figure 4b with the outermost curve corresponding to the country with a = 1 and the innermost one corresponding to a = 1-b. Analogously, for countries in the interval (1, 1+b), the labor endowment being 1, the maximum possible quantity of good 1 is 1 and that of good 2 is 1/a. Production frontiers of these countries will pivot around point A_1, in Figure 4b with the outermost curve corresponding to a = 1 and innermost one to a = 1+b.

Assuming identical Cobb-Douglas preferences which give equal weight to the two goods, it is easy to see from Figure 4b that the free trade price of good 2 (in terms of good 1) will be 1 with all countries consuming at point C, countries in the interval $1-b \leq a < 1$ specializing in good 2, countries in the interval $1+b \geq a > 1$ specializing in good 1, and the country with a = 1 diversifying.

Now suppose we form two blocs: one consisting of countries with the two innermost production frontiers and one with all the other countries. It is easy to see that within each bloc, the

Figure 4: A Ricardian Trading Block Model



price will remain 1 and welfare will reach the global maximum without any interbloc trade. We can also choose four, six, eight, etc. of the innermost countries to form one bloc and the rest to form the other bloc. The outcome will not change. Alternatively, suppose we form one bloc with all countries whose production frontiers pivot around A_2 $(1-b \leq a \leq 1)$ and the other bloc with countries whose frontiers pivot around A_1. It is clear that in this case bloc formation will lead to a loss of welfare.

Can we relate the number of blocs to welfare? Not really. We have already seen that in each of the two cases above, the number of blocs was 2. Yet, blocs in the first case were benign while in the second case they were damaging. More concretely, in the first case, we can create as many blocs as we want without affecting welfare. Thus, we can make one bloc of countries with two innermost frontiers, a second one of two countries with next to the innermost frontiers, and so on.

Where does this take us? The implication is that theory does not provide us with clear guidelines. More importantly, in the end, the critical question is whether blocs, once they have been formed, will cooperate or be hostile. In dynamic terms, even if the initial division of the world into a given set of blocs is welfare worsening, it may be desirable if it leads to eventual freeing of the world trade. A priori, as the number of players becomes small, a cooperative solution is more likely -- though individual players will also fare better if bargaining fails. There does not appear to be a clear consensus here. One view is that negotiations among a few players will be easier and free-rider problems less than among 150 or more participants. The opposing view is that bigger blocs will have more monopoly power and will be therefore more tempted to erect trade barriers.

V. An Evaluation of RI Arrangements

Where are the gains from RI likely to come from? In the review of the welfare economics of preferential trading arrangements, we concentrated on static efficiency effects and did not refer to the

"dynamic" effects that many have argued to be important [e.g. Balassa (1961)], even though they are difficult to quantify. Also, like scale efficiency effects, they are not particular to RI arrangements. However, these effects are likely to be more important than the static efficiency effects alluded in sections III and IV. For example, if increased competition from trade puts pressures on domestic firms to adopt new technologies at a faster rate than in an environment sheltered from competition. An enlarged market also increases the stimulus to investment to take advantage of the enlarged market and to meet the expanding competition. As has been emphasized in the new growth literature, one would expect a catch-up to occur on the part of the least-developed partners. However, in past RI schemes among developing countries this dynamic effect was probably not fully exploited because of frequent barriers to the purchase of foreign technology.

Economic cooperation in areas where significant externalities and public goods (education, research and development, infrastructure, environment) exist, is also a potentially important area for dynamic benefits. The potential benefits of cooperation have been emphasized by Langhammer and Heimenz (1990, 1991) and Foroutan (forthcoming). Cooperation can take many different forms ranging from the simple exchange of information through the provision of joint training facilities to the mutual recognition and adaption of rules and regulations, to the implementation of joint policies and the establishment of joint institutions with quasi-legislative powers. In the sample of schemes described in table 1, only ASEAN and SADCC emphasized cooperation.

Can one discern any of these "dynamic" effects? To do so would require in-depth micro-level information, extending beyond this paper. Less ambitiously, we examine GDP and investment data for the group of regional arrangements identified in table 1 to see if there were any apparent changes in the value of these variables following integration. While we are aware that any observed changes is also likely to capture a host of other effects, one would hope that if integration changed the climate

among members, other things equal, one would observe at the aggregate level some stimulus either via increased investment or through higher growth among members.

Growth Effects

Higher growth was among the ultimate objectives of all integration arrangements.[17] Was there any discernible effect of integration on growth and investment? Table 5 compares decadal rates of growth for a sample 101 countries. The sample is divided into 23 OECD developed countries and 78 developing countries. The cut off point for the sample is somewhat arbitrary, but it was chosen so that all members of EFTA and EEC (12) would fit in the developed-country sample during the entire 1950-88 period. In a first pass, we report in table 5 average growth rates and investment rates for the RI schemes described in section II for the periods 1950-9, 1960-72 and 1973-88. We compare them with the average growth rate for the entire sample of developed and developing countries[18]. The breakdown into these three periods is convenient as it corresponds quite well to the dates when the RI arrangements were implemented.

Three results stand out from table 5. First, among the developed country schemes, there was a sharp increase in investment among EFTA and EC during the decades of the sixties while integration was taking place. Can this be attributed to the positive effects of integration? This is difficult to ascertain since the average figures for the sample also show an increase for this period. It is, however, interesting to look at the evolution of the investment ratio for the EC in figure 5 in comparison to all other developing countries (including EFTA). It is clear from that graph that there

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[17] Other objectives such as diluting political frictions were also important as for instance in the case of ASEAN.

[18] The use of decadal (or more) average growth rates helps control for the role of exogenous sporadic factors that affect growth like shocks. See Easterly et al. (1992).

Table 5: Growth and Investment Among RI Schemes

Period	1950-60		1960-72		1973-85	
Variable	GDP	INV	GDP	INV	GDP	INV
EC (1960)	3.3 (1.8)	25.1	3.7 (0.7)	28.1	1.5 (0.6)	23.5
EFTA (1960)	3.4 (1.4)	25.8	3.7 (0.6)	29.9	2.3 (0.9)	28.1
CACM (1960)	1.8 (1.4)	10.6	2.5 (0.6)	11.8	-5.0 (1.6)	13.1
LAFTA (1960)	1.5 (1.6)	16.2	2.8 (1.7)	15.0	0.4 (1.5)	16.8
CEAO (1974)	N.A. N.A.	N.A. N.A.	1.0 (2.2)	6.8	0.0 (0.9)	8.6
ANDEAN (1969)	1.6 (1.8)	20.1	2.7 (0.4)	18.3	0.5 (1.5)	19.0
UDEAC (1973)	N.A. N.A.	N.A. N.A.	2.2 (2.5)	15.9	1.4 (3.0)	18.3
All Developed (23 Countries)	3.4 (1.8)	22.1	4.1 (1.6)	26.6	1.7 (0.8)	25.2
All Developing (78 Countries)	1.8 (1.6)	16.3	2.8 (2.2)	15.8	0.9 (3.0)	17.7

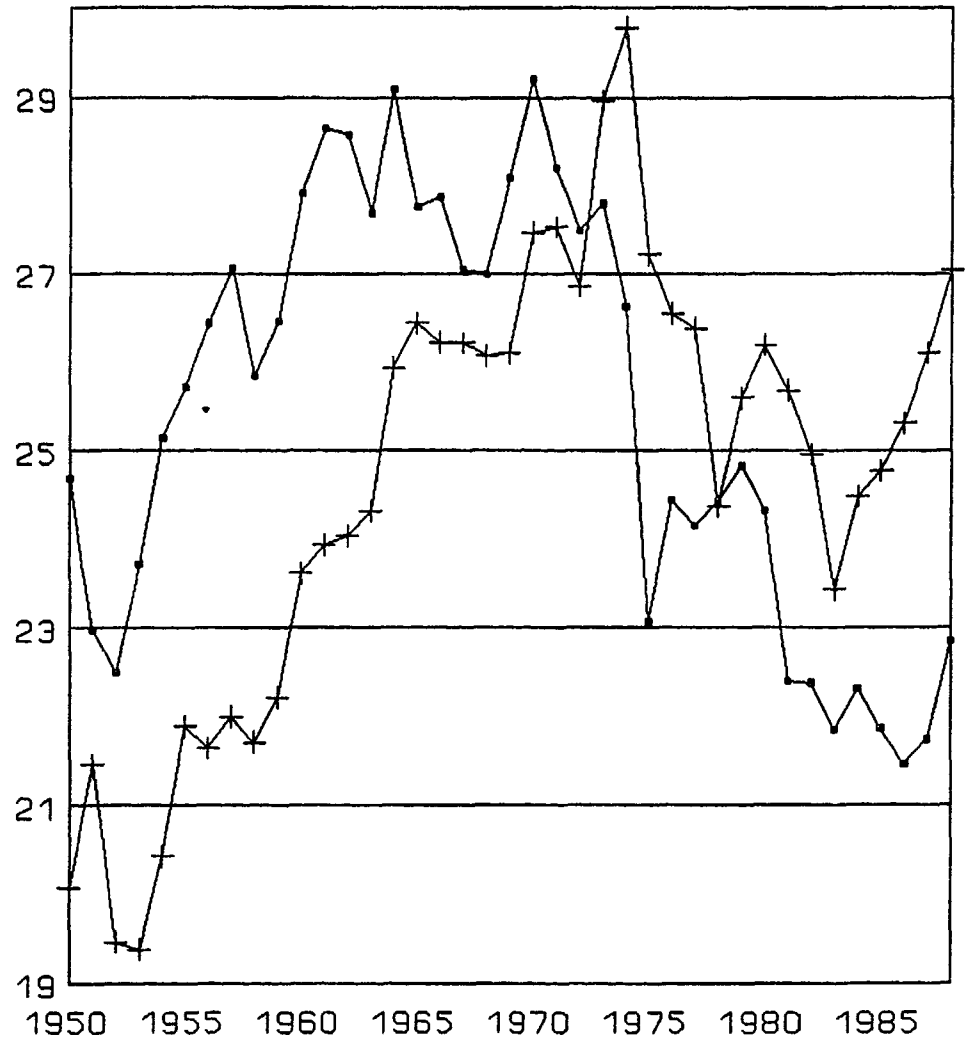
Source: Heston and Summers (1991).

Notes: GDP = real GDP growth; INV = real investment ÷ real GDP.

N.A. = Not available; Geometric averages; standard deviation in parenthesis.

Figure 5

INVESTMENT RATIOS IN EEC AND OTHER OECD COUNTRIES



■ EEC-6 (1950-72); EEC-9 (1973-80); EEC-10 (1981-85); EEC-12 (1986-88)
+ OECD COUNTRIES LEFT.

was a sharp take-off in investment for the EC(6) just after the signing of the treaty for the European Coal and Steel Community (1952), also the time when it was decided to go ahead with the Treaty of Rome (1957) that established the EC. (Between 1960 and 1968 all QRs and tariffs were eliminated on intra-EC trade.)[19]

Second, there was a sharp decline in the standard deviation in GDP growth rates among the EC and EFTA. This decline did not occur for the remaining developed countries. This reduction in the variance of growth rates is not direct evidence of success of RI. However, insofar as integration speeds up the adoption of new technologies and increases the mobility of factors, one would expect more open economies to have greater rates of convergence.[20] One would also expect that convergence would be speeded up among countries that integrate if the poorer countries with less flexible economic structures and less well-developed policy instruments, acquire macroeconomic stability and "institutions" through membership.[21]

Third, among developing countries, one observes no change in investment or growth rates following integration. The only schemes where investment rose following integration (CEAO and UDEAC) experienced a fall in growth. One should not, however, attribute the decline in growth to a fall in the efficiency of investment associated with integration since there was a fall in growth everywhere following the supply-side shocks that started in 1973.

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[19] The discussion below, however, suggests countries that during the 1960s investment ratios were even higher among EFTA countries. It is interesting that a similar announcement effect seems to have occurred in Mexico, the country that would gain the most from NAFTA. Shortly following the announcement of NAFTA, investment rose sharply in Mexico, the country that would gain the most from a NAFTA. (Also U.S. FDI into Mexico was 50% higher in 1991 than in 1990.)

[20] Ben-David (1991) interprets the declining variance in growth rates across EC countries during 1960-72 as evidence of the catch-up effects of opening-up. While this may be the case, he does not point out that a similar decline in variance occurred among EFTA countries.

[21] de Melo, Panagariya and Rodrik (forthcoming) develop a model in which integration allows the government to carry out more efficiently its policy objectives as it dilutes the power of lobbies.

As a prelude to the estimation of a cross-country growth equation, we looked for evidence of differences in growth rates among countries that integrated for the periods 1960-72 and 1973-85. The test is for a difference in mean growth rates for countries that integrated compared with those that did not in each grouping (developed and developing). As expected, in no case was GDP growth statistically different from the mean of the respective comparator group. Next, we added investment as an explanatory variable to the growth equation. Within the developing-country grouping, none of the dummy variables controlling for RI membership was significant (either individually or jointly). On the other hand, within the developed-country grouping, for the period 1960-72, the investment rate was significantly higher than the mean for EFTA (also for the EC but not significantly so). Thus within the OECD group, EFTA, and to a lesser extent, the EC had higher investment rates than the comparator group that did not integrate. While these results are consistent with the dynamic effects of integration mentioned above, it could have reflected other factors as well, including reconstruction from the war.

In a last step, we fitted a growth equation to the cross-section to the sample of countries as in table 5. The model is then used to test for the eventual influence of belonging to an RI scheme by including dummy variables for membership. The model is estimated over the two sub-periods 1960-72 and 1973-85.[22] Splitting of the sample into two sub-periods was necessary to test for RI membership. The breakpoint was also done to correspond to the first oil shock. As to the splitting of the sample into a developed and a developing country grouping, the Chow test strongly supported the split for the first subperiod, but only marginally for the second subperiod. Because heteroskedasticity could be important across countries, the standard errors for the coefficients are based on White's (1980) heteroskedasticity-consistent covariance matrix. Besides investment, the explanatory variables

[22] The theoretical basis for a growth model where investment is the only factor affecting long-run growth must rely on the assumption that capital is the only scarce factor of production. Faini, de Melo, Senhadji and Stanton (1992) argue that this is plausible for developing countries.

include initial per capita income and a proxy for human capital. The human capital variable is an index of the average schooling of the population over 25 years old at the beginning of each sample period (1960 and 1975). It is taken from Barro and Lee (1992) and is superior to the usual primary and secondary enrollment ratios, which do not proxy for the stock of human capital.

It is expected that poor countries will grow faster because of a higher marginal product of capital in poor countries, so the expected sign of initial income is expected to be negative. On the other hand, it is expected that the proxy for human capital will enter with a positive sign.[23]

The results are reported in tables 6 and 7. We test for the effects of RI by including dummy variables for the following arrangements (years of implementation in parenthesis): (i) among developed countries, EC (1960) and EFTA (1960); (ii) among developing countries CACM (1960), LAFTA (1960), SACU (1969), Andean (1969), UDEAC (1973) and CEAO (1974). Among the latter group, SACU (Botswana, Lesotho, South Africa and Swaziland) is an example of a North-South RI scheme and CEAO which includes former French colonies are also part of a monetary union since they are all members of the CFA zone.[24]

The overall fit of the model is satisfactory and similar to those obtained by other cross-country growth exercises [e.g. Barro (1991)]. Note, however, that even though all the explanatory variables have the expected signs, the overall fit is much poorer for the developed-country sample during the second period. Undoubtedly, this reflects a combination of omitted-variable bias, misspecification and endogeneity of regressors (see below) as well as the lack of variables capturing the effects of the supply-side shocks starting in 1973.

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[23] We also tested for the importance of economies of scale by including as a proxy for market size the initial level on industrial output. As expected this variable is highly correlated with income so that, when entered together, they lose their significance.

[24] Other RI schemes that were not included either did not have a long enough existence (e.g. SADC, Canada-U.S. FTA, etc.) or did not achieve much by way of integration.

TABLE 6. Cross Country Growth (Developed and Developing)

DEPENDENT VARIABLE: GR6072

N of OBS	23	23	23	23	78	78	78	78	78	78
Const.	24.486	24.194	22.767	19.947	5.941	5.457	5.942	6.001	6.372	5.944
	3.85**	3.97**	3.50**	3.47**	2.94**	2.59**	2.97**	2.98**	3.12**	2.83**
LGDP60	-2.806	-2.759	-2.612	-2.255	-0.768	-0.703	-0.771	-0.778	-0.795	-0.747
	-3.16**	-3.26**	-2.96**	-2.98**	-2.58**	-2.25**	-2.61**	-2.62**	-2.64**	-2.83**
AI60	0.099	0.099	0.115	0.134	0.095	0.093	0.096	0.096	0.086	0.088
	2.06*	2.07*	2.25*	2.61**	2.89**	2.92**	2.88**	2.85**	2.64**	2.59**
BAR60	0.101	0.097	0.070	0.023	0.259	0.245	0.257	0.252	0.252	0.230
	0.565	0.550	0.403	0.147	2.36*	2.30*	2.34*	2.17*	2.35*	2.05*
EEC9		-0.230		-0.639						
		-0.725		-1.443						
EFTA			-0.411	-0.891						
			-1.153	-1.656						
SACU						1.654				1.607
						2.23*				2.22*
CACM							0.200			0.199
							0.584			0.502
LAFTA								0.152		0.188
								0.249		0.293
CEAO									-1.626	-1.501
									-1.96*	-1.781
R2	0.667	0.672	0.676	0.698	0.288	0.315	0.288	0.288	0.312	0.338
MSE	1.042	1.064	1.057	1.050	1.903	1.879	1.915	1.915	1.883	1.886

Notes:
GR6072 = Average rate of growth of the income per capita for the 1960–1972 period (S & H).
LGDP60 = Logarithm of real GDP per capita in 1960 (S & H).
AI60 = Average investment as a share of GDP 1960–1972 (S & H).
BAR60 = Barro and Lee (1992) average schooling of the population over 25 years old in 1960.
EEC, EFTA, SACU, CACM, LAFTA, CEAO = dummy variables for each one of the respective integration schemes
* t-test significant at the 5% level.
** t-test significant at the 1% level.

TABLE 7. Cross Country Growth (Developed and Developing)

DEPENDENT VARIABLE: GR7385

N of OBS.	23	23	23	23	78	78	78	78	78	78	78	78
Const.	1.643	2.712	5.888	5.781	11.797	11.621	11.685	11.895	11.786	11.760	11.711	11.502
	0.230	0.371	0.812	0.783	2.38*	2.32*	2.30*	2.30*	2.36*	2.33*	2.37*	2.15*
LGDP73	-2.991	-0.340	-0.728	-0.700	-1.966	-1.935	-1.938	-1.984	-1.965	-1.959	-1.975	-1.937
	-0.336	-0.368	-0.799	-0.746	-2.50*	-2.43*	-2.38*	-2.40*	-2.49*	-2.45*	-2.51*	-2.23*
AI73	0.083	0.069	-0.047	0.047	0.132	0.127	0.129	0.133	0.132	0.132	0.135	0.130
	2.26*	1.88*	1.367	1.376	3.26**	3.13**	3.02**	3.07**	3.22**	3.24**	3.32**	2.68*
BAR75	0.076	0.058	0.116	0.107	0.381	0.380	0.380	0.376	0.381	0.381	0.396	0.391
	0.572	0.406	0.838	0.758	2.25*	2.25*	2.23*	2.30*	2.22*	2.26*	2.23*	2.34*
EEC12		-0.388		-0.101								
		-1.335		-0.336								
EFTA			0.727	0.661								
			2.11*	1.797								
SACU						0.774						0.786
						0.598						0.603
CACM							-0.512					-0.397
							-0.623					-0.424
LAFTA								0.175				0.257
								0.232				0.323
CEAO									0.043			0.148
									0.068			0.213
ANDEAN										-0.167		-0.250
										-0.242		-0.381
UDEAC											1.619	1.626
											0.869	0.851
R2	0.182	0.228	0.290	0.293	0.212	0.216	0.214	0.212	0.212	0.212	0.219	0.224
MSE	0.818	0.816	0.734	0.805	2.698	2.711	2.713	2.716	2.716	2.716	2.704	2.792

Notes:
GR7385 = Average rate of growth of the income per capita for the 1973–1985 period (S & H).
LGDP73 = Logarithm of real GDP per capita in 1973 (S & H).
AI73 = Average investment as a share of GDP 1973–1985 (S & H).
BAR75 = Barro and Lee (1992) average schooling of the population over 25 years old in 1975.
EEC, EFTA, SACU, CACM, LAFTA, CEAO = dummy variables for each one of the respective integration schemes.
* t-test significant at the 5% level.
** t-test significant at the 1% level.

With respect to RI membership, three results stand out. First, with the exception to be discussed below, none of the integration dummies is significant. Insofar as splitting the sample controls for some of the effects of omitted variables, it is instructive to note that belonging to an RI has no apparent effect on long-run growth. Of course, it could be argued that some of the regressors are correlated with the dummy variable controlling for RI membership -- for example the investment share in GDP could be higher among RI countries because of the positive effect of membership on the macro and institutional environment. Still, there is apparently no effect of membership, even for developed countries. To some extent this should not come as a surprise since trade liberalization was being carried out multilaterally and benefits were therefore being spread out fairly evenly. Thus there is no apparent effect of membership in terms of higher growth even for EC, EFTA and CACM during the 1960s when intra-regional trade was growing rapidly.

Second, splitting the sample into developed and developing country groups reveals an interesting difference in the role of human capital in explaining growth. Human capital is always significant for the developing-country grouping, but not for the developed-country group. First, as emphasized by the "new" growth literature, human capital is a contributing factor to growth for poor countries. Second, as emphasized in the institutional analysis, and in the literature emphasizing cooperation, there would appear to be benefits from institution-building and joint training. This aspect of integration, largely neglected during the first wave of RI arrangements, would appear to promise benefits. Also note that the dummy variable for SACU is significant for the period 1960-72. While not much can be read into this result because of the particular role of South Africa and the fact that SACU has been in existence since 1910, it is worthwhile to note that, along with SADCC (not included here) and ASEAN, this is one of the few RI arrangements that emphasized cooperation.

Third, there is support to the "convergence" hypothesis suggested by neoclassical growth theory, especially during the first subperiod, and for the developing-country grouping. Initial income

per capita always enters with a statistically significant negative sign. Other things equal, low-income countries tend to grow faster. The new wave of RI often includes the association of more-developed partners with less-developed ones. Insofar as RI speeds up the transmission of knowledge and technology transmission beyond that obtained via UTL, then regionalism will increase catching-up.

VI. Conclusions

Is the second wave of RI likely to encounter the same difficulties as the first wave? In a forward-looking evaluation, one must ask oneself if today's conditions would lead to the same difficulties in implementation. For several reasons, this is not likely to be so. First, with the exception of some African RI schemes where conditions do not seem to have changed much, developing countries involved in RI schemes have recently independently undertaken substantial UTL. This should make it easier to secure, if necessary through a political bargaining process with lobbying interest groups, the required additional liberalization for success. Second, objectives have changed as today virtually all new initiatives are no longer looking for "training grounds", nor do they have as their primary objective, ISI. As we saw earlier, to be efficient in developing countries, RI calls for substantial specialization to exploit economies of scale. In turn, this specialization requires adjustment assistance and therefore compensation across members. Devising equitable schemes to allocate industries efficiently turned out to be impossible to achieve among developing countries during the first wave of RI. Compensation was only effectively carried out during the Southern enlargement of the EC. Insofar as there is a move towards North-South RI arrangements, the issue of compensation may be less of a problem than previously.

Does this mean that the new wave of RI is going to be successful? Not necessarily, as some new arrangements (e.g. Canada-U.S. and Israel-U.S. FTAs) have so many exceptions to effective

trade liberalization as to make the agreements vacuous. These agreements initiated by the smaller trading partner reflect the desire of market access to the larger country, in reaction to their fear that the world trading system will turn into trading blocs. The danger for the smaller countries is that the price they may have to pay to obtain market access in the form of exclusionary agreements (e.g. Mexico on autos with the U.S.) will result in the loss of foreign direct investment from third countries.

Where do we stand? Are RI schemes a stepping stone towards more integrated world markets or a distraction, and perhaps a hindrance, to the multilateral reductions in trade barriers? The discussion in section IV suggested that the emergence of trading blocs could turn out to be a help or a hindrance depending on whether blocs would be tempted to use their power and become inward-looking. In this context, the GATT should strengthen articles VI and XIX to make it more difficult for trade policy to be dominated by fair trade mechanisms like Antidumping actions and Voluntary Export Restraints. And article XXIV which regulates the formation of RI should require that external barriers come down as CUs or FIAs are formed. At the same time, the threats to a liberal integration process will be limited if RI arrangements eschew interim exceptions, adopt liberal rules of origin, and resist imposing entry limitations.

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