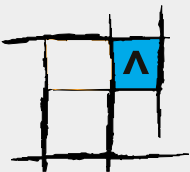




LACEA 2007
MONTEVIDEO ■ URUGUAY



Anthony Venables
Regionalism and Economic Development



27th Sept 2001: Revised.

Regionalism and Economic Development*

Anthony J. Venables, *London School of Economics and CEPR*

1. Introduction
2. Background
 - 2.1. Globalization
 - 2.1. Regionalism
 - 3.2. Trade and development
3. Regionalism: analysis
 - 3.1. Trade patterns: creation, diversion and comparative advantage
 - 3.2. Production networks
 - 3.3. Scale, competition, and agglomeration
 - 3.4. Technology transfer
 - 3.5. Factor prices, adjustment and political economy
4. Regionalism: policy choices.
 - 4.1. Choice of partner
 - 4.2. External trade policy
 - 4.3. Depth of integration
5. Conclusions

*Paper prepared for the Inter-American Development Bank conference and volume 'Trade and regional integration in the development agenda', eds A. Estevadeordal and R. Devlin. Thanks to the editors and Pravin Krishna for helpful comments.

1. Introduction

Effective participation in the world economy is an important – probably necessary – element of a successful development strategy. What is the role of regional integration in this strategy?

Should a developing country's strategy focus on the world as a whole, or is there scope for concentrating on integration with selected regional partners?

Regional integration could have several different roles to play. One is that it could be an alternative to a global strategy. The model of regional integration behind high external tariff walls was pursued by some countries in the 1960s and 70s but has been abandoned as a failure, and we shall not pursue it here. Another is that regionalism is pursued broadly in parallel with a liberal external trade policy. Although regionalism is inherently preferential, it may be possible to proceed at a more rapid rate, and achieve deeper integration, than can trade relationships with the world at large. Additionally, regionalism can be seen as preparatory to wider liberalization. Developing trade links with partner countries may be a stepping stone to full participation in the global economy.

We will argue in this paper that regionalism can be a valuable part of a development strategy, although its contribution depends on the form the agreement takes. Choice of partners is important. The benefits from South-South integration schemes are likely to be rather modest -- arising, for example, from scale effects -- but such agreements are prone to trade diversion and to diverting production structures away from countries' true comparative advantage. The likelihood of trade diversion is less in North-South schemes, or South-South agreements accompanied by external liberalization or inclusion of Northern partners. The depth of integration is also important, with the gains from market integration depending on how far countries are willing to go in removing not just tariffs, but also a wide range of other barriers to economic interaction.

The next section of the paper contains a brief discussion of globalization and regionalization by way of background. The core of the paper is section 3, that deals with the economic analysis of regional integration schemes. In addition to providing analysis of the relationships between choice of partner, production structure, and trade diversion, the section also discusses production networks, returns to scale, and agglomeration effects. Section 4 looks at policy choices, including depth of integration, and section 5 draws the analysis together and

presents conclusions.

2. Background

2.1. Globalization

The process of globalization is driven by a number of forces, the most important of which are policy change and technical progress. The last twenty years have seen average tariffs on manufactures fall from around 7% to less than 4%, and the opening of investment and some service sectors in many countries. Technical change has reduced the costs of transport and slashed the cost of communications. Declines in ocean shipping and airfreight rates appear to bottom out in the 1960s and 1980s respectively, but these figures almost certainly understate the true fall in trade costs. Hummels (2000) estimates that the value of time saved by the speeding up of ocean shipping (due to containerisation and faster vessels) and increased use of airfreight are equivalent to a tariff reduction of 11-12 percentage points on US imports.

The associated growth of trade is shown in figures 1a and 1b. The former gives trade to income ratios, and the latter concentrates on merchandise trade, expressing this relative to merchandise value added. The main features are the rapid growth of total exports to GDP for the low income countries (figure 1a), rising from around 5% in 1970 to 15% in 1998. For middle and high income countries this growth is less dramatic because of the rising importance of service sector activities in these economies. Controlling for this by just looking at the ratio of merchandise exports to merchandise value added (figure 1b) indicates strong growth from the mid-1980s onwards, particularly for middle income countries, for which the ratio doubled from around 30% to nearly 60%. A comparison is often made with pre-1913 trade to income ratios which, for some countries were higher than present day (the UK's ratio of trade to GDP in 1913 was 27.3% compared to 20.6% in 1990, and the ratio of merchandise trade to merchandise value added was 61.5% compared to 62.8% in 1990). However, there are good reasons to think that today's trade is different, involving higher levels of two way trade in manufacturing goods rather than the exchange of manufactures for primary products.

An additional new feature of recent trade flows is the shipping of parts and components as firms increase their outsourcing and become involved in international production networks.

Yeats (1998) estimates that 30% of world trade in manufactures is trade in components rather than final products. Hummels, Ishii and Yi (2001) chart trade flows that cross borders multiple times, as when a country imports a component and then re-exports it embodied in a downstream product. They find that, for 10 OECD countries, the share of imported value added in exports rose by a third between 1970 and 1990, reaching 21% of export value. Much of the growth of this vertically specialised trade is concentrated in a few countries neighbouring existing centres in Asia, Europe and America.

Accompanying trade growth has been even more rapid growth of foreign direct investment (FDI); whereas worldwide nominal GDP increased at a rate of 7.2 percent per year between 1985 and 1997 and worldwide imports at 9.2 percent, worldwide nominal inflows of FDI increased at 17.6 percent. The largest increases are for low and middle income countries. During the five years from 1988-92, advanced countries received FDI inflows at an average annual rate of 0.90 percent of their GDP, while the average for developing and transition countries was 0.78 percent. By 1993-99, the inflow rate of developing and transition countries as a whole had more than doubled to 2.4 percent of GDP, while that for the advanced countries had increased to 1.3 percent of GDP. An alternative picture of the importance of FDI comes from looking at the sales of foreign affiliates of multinational firms, and the overseas production of affiliates of US firms is now three times larger than total US exports.

2.2. Regionalism

Accompanying globalization there has been a process of increasing regionalisation. A simple measure of this is to look at the average distance over which countries' ship their imports. Table 1 gives numbers for some selected countries and regions. There has been a steady decline in distance shipped in Asia, largely because of the increasing amount of intra-Asian trade. Other rows of the table indicate the importance of regional agreements. The UK's entry to the EU in the early 1970s and the later growth of trade within the Americas were both associated with these areas' trade become markedly more regional.

Table 1: Average distance travelled by imports, selected countries and regions.

trade-weighted average trading distance, km	1970	1980	1990	1997
Nafta	5342	6162	6231	5902
Mexico	4940	4988	4645	4147
Mercosur	8755	8943	8985	8119
Latin America	6954	6902	6958	6197
EU15	2728	2549	2417	2695
UK	4538	3343	3140	3413
Asia	6910	6889	6381	6071

Source: NBER World Trade Database

Table 2 indicates how, while world trade grew by 63% (in real terms) between 1980-84 and 1993-97, a number of flows within the Americas grew very much faster. Notably, US-Mexico trade more than trebled (US+Canadian exports to Mexico growing by 217% and their imports from Mexico growing by 241%). Chilean exports to the world as a whole grew almost as fast as Mexican (126% compared to 143%), and bilateral trade between the two grew spectacularly fast. Within Mercosur, trade between Argentina and Brazil approximately quadrupled. In contrast, the residual 'rest of Americas' saw their trade stagnate.

Table 2. Growth of bilateral trade flows in the Americas: 1980-84 to 1993-97, % change

to from	US/Canada	Mexico	Argentina	Brazil	Chile	Rest of Americas	EU	World
US/Canada	81	217	96	101	133	27	29	63
Mexico	241		385	-22	1558	75	-44	143
Argentina	36	-2		494	338	105	21	53
Brazil	12	41	262		90	70	17	28
Chile	88	249	144	69		173	45	126
Rest of Americas	-17	119	-17	31	-14	-5	-22	-14
EU	77	81	99	172	121	42	86	78
World	77	187	103	49	125	23	61	63

Source: NBER World Trade Database

This increasing regionalisation of trade is due to two things. One is that trade is increasingly intra-industry trade, and some of the countries that participate in this trade happen to be close together (notably Europe). The other is the growth of regional integration agreements (RIAs). In 1999 there were 194 RIAs notified to the GATT/WTO, 87 of which were established post 1990. Previously existing RIAs, such as the EU, have deepened their integration and a

number of dormant RIAs have been reactivated. Importantly, the 1990s also witnessed the development of North-South RIAs, in the bilateral agreements made with the EU and in the development of NAFTA.

2.3. Trade and development.

The link between trade performance and growth is widely accepted, and grounded on much case study material (see Srinivasan and Bhagwati 1999 for a recent discussion). Recent empirical work on the determinants of growth has found the relationship more elusive. While a number of cross-country regression studies have found a positive relationship between growth and trade, these studies have been widely criticised (eg Rodriguez and Rodrik 1999), and findings are generally regarded as far from robust. The method is dogged by the difficulty of measuring openness (or the trade policy stance), and by the high correlation between open trade policies and other institutional features accepted to be conducive to growth.

A more illuminating approach is contained in Dollar and Kray (2000), who identified a set of developing countries they term the 'globalizers'. They rank developing countries according to the decline in their tariff rates between the 1980 and the late 1990s, and the increase in their trade to GDP ratio, and select countries that are in the top 40 of both lists. There were 16 such countries, and the two African countries that came closest to the criterion were added, giving: Argentina, Bangladesh, Bolivia, Brazil, China, Costa Rica, Ghana, India, Malaysia, Mexico, Nepal, Philippines, Poland, El Salvador, Thailand, Uganda, Uruguay, Vietnam. (The early trade liberalizers – Chile, Turkey, Hong Kong, Singapore, South Korea and Taiwan are in the rich country group, not in this list of globalizers). Table 3 (first two columns) indicates how very much more open these countries became relative to the non-globalizers (all other developing countries), and gives per capita growth rates for the last four decades. The striking point is that while these countries fared worse than others in the 1960s and 70s, their performance was dramatically better during the 1980s and 1990s, with per capita growth of 5.3% pa compared to -0.8% pa for the non-globalizers. It is also noteworthy that these countries' exports became increasingly oriented to high income countries. The share of their exports going to a given set of high income countries rose from 69% in 1980 to 78% in 1997. Non-globalizing middle and low

income countries actually started off with a higher share going to high income countries, but the share fell from 76% in 1980 to 72% in 1997.

These findings do not establish a causal relationship between trade and growth, and still less do they identify particular trade policy instruments as determinants for causing growth – the countries that liberalized trade also reformed many other domestic policies. They do, however, make a convincing case that full participation in the world economy is an inherent part of modern economic growth. The point is made somewhat differently by Lindert and Williamson (2001).

...’the empty set contains those countries that chose to be less open to trade and factor flows in the 1990s than in the 1960s and rose in the global living-standard ranks at the same time. As far as we can tell there are no anti-global victories to report for the postwar Third World.’

Table 3: Growth and trade performance of the globalizers.

	% fall in tariffs, 1980 - late 90s	% increase in trade / GDP, 1980 - late 90s	Annual growth pc income 1960s	Annual growth pc income 1970s	Annual growth pc income 1980s	Annual growth pc income 1990s
Globalizers	64%	92%	1	1.7	2.6	5.3
Non-globalizers	29%	1%	2.2	2.8	0.2	-0.8
High income		50%	4.5	3.4	2.5	1.9

Source: Dollar and Kray (2000).

3. Regionalism: analysis

Against this background, what is the role for regionalism in development strategy? We will argue that regionalism can bring modest opportunities for economies to overcome some of the disadvantages of small size. Increasing returns may be present within firms, and also within industrial clusters in which case better integration of markets can spur industrialization on the basis of these increasing returns. Regionalism may also provide developing countries with an

opportunity to better exploit their comparative advantage (to become a ‘globalizer’). However, this depends crucially on the characteristics of member countries of the RIA. In South-South agreements the opportunities are very limited. Richer countries in the RIA will typically see their production structures distorted away from their true comparative advantage, as they trade more with poorer partners. Poorer countries are likely to experience trade diversion and possibly real income loss as they import goods from their partner rather than the rest of the world. North-South agreements typically offer better opportunities, as they promote export growth in line with comparative advantage, and may also open the way to fuller participation in global production networks.

The remainder of this section lays out the basis of these claims. We start by looking at the comparative advantage issues, which requires thinking through the way in which gains (or losses) from regional integration depend on partner country characteristics. We then turn to increasing returns, looking at the possible scale, competition and agglomeration effects of a RIA. Throughout this section we treat a RIA simply as a preferential tariff liberalization. Of course, many other policy changes may also be involved, and we look at some of these in section 4.

3.1. Trade patterns: creation, diversion, and comparative advantage

Theory: The point of departure for analysis of preferential trading arrangements is Viner’s (1950) study of trade creation and trade diversion. The analysis shows that while a reduction in tariffs with all trading partners raises welfare, a preferential reduction affecting only partners in the RIA may reduce welfare. The reason is that in addition to creating trade, such a tariff change will also tend to divert it, possibly causing import supply to switch from the lowest cost source to a higher cost partner country whose exports benefit from preferential market access.

In this section we put this important idea in an extended context, and look at the way in which trade patterns (and associated production structures) are likely to change because of membership of a RIA. Effects depend on the characteristics of the partner economy, and we draw this out in some detail, showing how quite different outcomes are to be expected in North - South RIAs compared to South - South ones.¹

As a framework for thinking about this, suppose that there are three countries. One is

large and represents the world average, and the other two (called economies 1 and 2) are the countries that are considering RIA formation. We shall concentrate on country 1, and sometimes call country 2 the partner. Since we want to study the effects of forming a RIA with partners of different types, we assign country 1 a particular comparative advantage and look at a range of different potential partners. The horizontal axis of figure 2 gives all possible partner types, ranked according to their comparative advantage. At the right-hand end of this axis are high income 'northern' countries, whose endowment (abundant in human and physical capital) gives them a comparative advantage in a composite of goods we shall call 'good M'. At the left-hand end are low income 'southern' countries with comparative advantage in another good 'good A'. Country 1 has comparative advantage at point I and the world average is at point R. Thus, if the partner is at point I the two countries in the RIA have the same comparative advantage. If the partner is in range N, then country 1 forms a RIA with a high income Northern partner. If the partner is in range HS then country 1 forms a RIA with a higher income 'southern' country; in the range LS the partner is lower income than country 1.

The vertical axis of figure 2 has on it (as a function of country 1's choice of partner) the change in country 1's net imports of good M from the rest of the world, from the partner, and in total. If country 1 forms a RIA with a partner in set N, it will experience a large increase in imports of good M from the partner, as indicated by the dashed line, and a fall in imports from the rest of the world, indicated by the lower solid line. Total imports increase (and so, correspondingly, do exports of A). There are unambiguous welfare gains to country 1 from this change in trade, since it is an increase in imports of good M from a country which has a comparative advantage in good M, relative to country 1 and relative to the rest of the world.

If the partner's comparative advantage is such that it is in set HS, then the qualitative change in the direction of trade is similar, as it is determined by the partner's comparative advantage relative to that of country 1. We see an increase in imports from the partner, a fall in imports from the rest of the world, and an increase in overall imports of M (and exports of A). However, the welfare economics is quite different. A partner in HS has a comparative advantage in good M relative to country 1, but a comparative *disadvantage* in this good relative to the world. Since it displaces imports from the rest of the world there is Vinerian trade diversion

which reduces real income. Preferential treatment is causing country 1 to divert the sourcing of its imports from the rest of the world (the lowest cost source of supply) to country 2.

What if the partner is a country with comparative advantage in set LS? In this case country 1 has comparative advantage in good M, relative to partner country 2, and will increase its *exports* of good M to country 2, this showing up as a reduction in net imports. Since country 1's increased exports of good M to country 2 raises the price of good M in country 1, there is also an increased flow of imports of good M into country 1 from the rest of the world. This is welfare improving because country 1 still has an import tariff on these imports.

The welfare effects of these changes is illustrated on figure 3, (giving full general equilibrium welfare effects including changes in trade in good A). The U-shaped solid line is the change in country 1's welfare and reflects the discussion above. There are gains from forming a RIA with a Northern country as country 1 expands its imports from a country with comparative advantage relative to country 1 *and* relative to the rest of the world. Turning to South-South agreements, country 1 is likely to gain if it is the '*intermediate*' country, but lose if it is the '*extreme*' one. Thus, if the partner is in LS it is '*extreme*', and country 1 is intermediate between it and the world average; we see that country 1 gains as it increases imports of good A from the partner, which has world comparative advantage in this good. However, if country 1 is extreme so its partner (in HS) lies between it and the world average, then trade diversion occurs, bringing country 1 welfare loss.

The other solid line on figure 3 gives the welfare change of the RIA as a whole. For South-South agreements one of the countries has to be extreme, experiencing diversion, and meaning that the RIA as a whole gains little. For North-South agreements (partner to the right of R) the changes in trade are in line with global comparative advantage and the aggregate gains are considerably larger.

Several further points come out of this analysis. One is that it is always the '*extreme*' country that is prone to diversion. Thus, a South-South integration scheme tends to increase any existing income differentials between the two countries, as it is the poorer of the member countries that has trade diverted to a partner intermediate between it and the world average. The opposite is true for a North-North integration scheme; in a North-North scheme the extreme

country is the one with the higher income, whose imports are diverted to come from the intermediate country.²

Second, the country that does better in a South-South agreement (the intermediate country) has its production structure moving in the *opposite direction* from what would occur with external trade liberalization. This occurs as it exploits its comparative advantage with the poorer country not with the rest of the world. In terms of the static model outlined here this is not, of itself, damaging to real income. However, in a dynamic setting in which regional integration is a way of developing the capacity or the efficiency of export industries, perhaps prior to broader trade liberalization, this is clearly problematic. The wrong sectors are being developed.

Third, the effects outlined above can be mitigated by other trade policy changes. The dashed line in figure 3 gives the effect on country 1's income of forming a RIA and implementing unilateral free trade with the rest of the world. We see that this is beneficial – as it must be for small countries in a perfectly competitive setting. More interestingly, it removes the deep U shape of the effects of RIA membership alone. Even if country 1's partner is in interval HS trade diversion does not occur, as imports of M are liberalised both from the partner, and from the world. This suggests the importance of accompanying South-South RIA formation with liberal external trade policy, or with the inclusion of a large Northern partner.

Empirics: The theory outlined above indicates how changing trade patterns might be associated with welfare gain or loss. What evidence is there? Empirical work on trade creation and diversion takes two main forms. One is the use of computable equilibrium techniques to predict the effects of changes in trade policy, and the other is based on ex post empirical studies of changes in trade flows. Neither has focussed particularly on the differences between South-South and North-South agreements.

The computable equilibrium studies have the advantage of containing a great deal of microeconomic detail, but the major weakness that they are not usually fitted to data as carefully, or subject to the same statistical testing, as econometric models. They typically find that there are gains from regional integration, so trade creation outweighs trade diversion, but the gains are

small (Francois and Shiells 1994, Harrison, Rutherford and Tarr 1994), usually just a fraction of 1% of GDP. These gains can be amplified by adding market imperfections, such as increasing returns to scale, as we will see in section 3.3 below.

The other technique is to estimate the effects of integration on changes that occurred in the actual volumes of trade with partner and non-partner countries. A variety of different econometric models have been developed, the most common being based on the gravity model which estimates bilateral trade between countries as a function of their GDPs, populations, the distance between them, and physical factors such as sharing a land border, and being landlocked or an island. Dummy variables capture whether or not countries are in a particular RIA, their estimated effect indicating whether there is more or less trade than would otherwise be expected. Using this technique, Bayoumi and Eichengreen (1997) find that the formation of the EEC reduced the annual growth of member trade with other industrial countries by 1.7 percentage points, with the major attenuation occurring over 1959-61, just as trade preferences were phased in. Soloaga and Winters (1999) look at a wide range of RIAs, producing a mixed picture with little evidence of widespread trade diversion. Overall, there appears to be weak evidence that external trade is smaller than it otherwise might have been in at least some of the blocs that have been researched. However, the real income effects of these changes cannot be inferred without information on relative costs and tariff structures, variables that are not incorporated in this sort of aggregate exercise.

3.2. Production networks

The traditional analysis of trade creation and trade diversion worked on the basis that preferential trade agreements would change the magnitude and direction of existing trade flows. However, a RIA might also create completely new trade flows as countries become involved in production networks, outsourcing different parts of the production process across countries in the RIA. This may occur within multinational corporations (in which case it is known as vertical foreign direct investment) or through supply chains external to the firm.

The basis of this sort of trade is factor price differences, so we expect it to occur in North-South rather than South-South RIAs. Furthermore, this trade often involves multiple frontier

crossings as components are exported, and re-exported embodied in assembled goods. Low transport costs are therefore important, as is security of supply. Rapid transport is also important, particularly in sectors where products are fashion sensitive or faults have to be detected rapidly. This suggests the importance of proximity, especially for products that cannot be airfreighted.

The empirical importance of production networks was outlined in section 2.1. What do we know about their relationship to regionalism? Low border costs and security of supply are features that should be present in a RIA, although are not restricted to it. Important participants in this sort of trade are the industrialising Asian economies, (Yeats 1998), that are not in formal RIAs.³ It is also important for some of the transition economies that are closest to the EU and first in line for full membership. Mexico perhaps provides the best example, able to exploit its position as an export platform to the US. FDI flows into Mexico more than doubled in the year following the launch of NAFTA, and Blomstrom and Kokko (1997) argue this increase was mainly by non-NAFTA countries' firms taking advantage of preferential access to the larger northern market. For example, Japan redirected part of its FDI from the US and Canada toward Mexico, and many projects (eg in the automobile industry) are intended for the NAFTA continental market.

What are the welfare economics of these changes, and how do they relate to the traditional literature on trade creation and diversion? It is possible (although unlikely) that the changes are associated with trade diversion. Perhaps in the initial situation country 1's imports of the good were coming from the rest of the world and preferential integration causes them to be replaced by higher cost production based on components imported from the partner and assembled in country 1. This would bring welfare loss, although if final consumption of the product took place largely in the high wage economy then the welfare loss would be experienced largely by this country.

Much more important sources of welfare gain for the lower wage economy are likely to come from two alternative mechanisms. The first is the effect of the extra labour demand associated with the assembly activity. This raises real income as wages paid may exceed the value marginal product of labour in its alternative occupation, or may get bid up by the extra employment, this tending to improve the economy's terms of trade. The second is technology

transfer, a topic to which we will return in section 3.4.

3.3. Scale, competition, and agglomeration

Small economies are disadvantaged in the extent to which they can benefit from economies of scale, and RIA membership offers the potential for overcoming this disadvantage. For some activities the benefits can be achieved by government action – eg collaboration on large investment projects such as dams, road networks or R&D. However, in private sector production it is far from automatic that regional integration will enable potential returns to scale to be achieved. It depends on the way in which integration changes market conditions faced by firms, possibly leading to reorganisation of the industry and consequent benefits from more intense competition and fuller realisation of economies of scale.

Pro-competitive effects and economies of scale:

The interaction between scale and market structure is best illustrated by a simple example of two integrating economies. We focus on a single industry in which firms face increasing returns to scale, and have market power, setting price greater than marginal cost. What happens when trade between the two countries is liberalised?

If firms continue to charge the same prices there is no direct effect. This might happen if the firms are collusive, and agree (implicitly if not explicitly) not to invade each others' markets. A rather extreme alternative was put forward by Cox and Harris (1985) in work on the US-Canada Free Trade Area. They hypothesised that domestic firms colluded, setting price at the tariff inclusive price of imports. A reduction in the tariff then leads to an equal size reduction in domestic prices. Furthermore, they suppose that there is free entry and exit of firms to the industry, and that firms have decreasing average cost (increasing returns to scale). Then, at equilibrium, zero abnormal profits implies that price equals average cost, so any reduction in price brings about an equal size efficiency improvement. Some firms exit the industry (possibly through bankruptcy, more likely through mergers and acquisition) and remaining ones expand, sliding down their average cost curve until they have reached sufficient scale to break even at the new lower prices. Based on this sort of mechanism, they estimated substantial Canadian gains

from the US-Canada FTA.

An intermediate position was taken by Smith and Venables (1988) (see also Flores 1997), who modelled competition between firms as a Cournot equilibrium, in which firms' price-cost mark-ups depend on their market shares. Applying this in the context of the EU's Single Market Programme, they argued that a reduction in border measures would increase the share of imports in each country, thereby reducing the dominant positions of domestic firms and increasing the intensity of competition. This change would have a modest effect on prices (a reduction of 1-2% in the most concentrated industries) and, via free entry and exit, a similar effect on average costs and welfare. Effects could be larger if the increase in competition is associated with a reduction in internal inefficiencies within firms.

These studies demonstrate the potential gains that can come from regional integration forcing a change in competitive conditions in the industry, and consequent industrial rationalisation and fuller exploitation of economies of scale. However, it is important to note that the rationalisation occurs because the direct effect of the change is to increase competition and reduce firms' profits. Firms, naturally, have an incentive to resist these changes. It is often argued that national borders provide a natural way to restrict competition, as firms (tacitly) maintain agreements to restrict sales in each others' markets. A reduction in tariff barriers may not be enough to intensify competition, in which case the real income gains will not be achieved. The European experience suggested that 25 years of free trade was not sufficient to create a fully 'integrated' market, as national firms still retained dominant positions in domestic markets. The Single Market Programme was designed to counter this, and is discussed more fully below.

Pro-competitive effects and the terms of trade:

An additional way in which a RIA may raise welfare is by improving the terms of trade of the partner countries. This can happen in a perfectly competitive framework if the countries concerned are large enough for changes in their trade flows to change the world prices of goods, although in practise this effect is likely to be small. More important, even a small economy might change the price at which it imports goods from the rest of the world if its markets are imperfectly competitive and segmented, so there is no single world price of the good. We saw

above how membership of a RIA might be expected to increase competition in the domestic market, in which case importers from external countries will experience the same downwards pressure on their prices. There is some evidence that this has been quite an important effect. Chang and Winters (1999) show that Brazil's membership in Mercosur has been accompanied by a significant decline in the relative prices of imports from non-member countries. Even controlling for costs, exchange rates, inflation, and external tariffs, they find that Mercosur membership had the effect of significantly reducing the relative prices of US goods in the Brazilian market.

Horizontal foreign direct investment:

In section 3.2 we discussed vertical foreign direct investment, where firms exploited factor price differences by dividing their production activities between countries. Historically, most foreign direct investment has not taken this form, but has instead been 'horizontal', with firms setting up production plants to supply local or regional markets. (The term horizontal refers to the fact that it is duplication of similar activities in different locations, as opposed to the vertical fragmentation of the production chain). Undertaking such investments typically involves some degree of increasing returns to scale, as firms replace imports with production from local plants. Consequently, these investments are more likely to be made the larger is the local (or regional) market. Since a RIA offers the prospect of supplying the entire regional market from one plant, it is likely to increase horizontal FDI inflows, and there is some evidence that this has occurred. This is part of the Mexican story, and in Europe a major surge of FDI accompanied the Single Market Program; The European Commission finds that the EU's share of worldwide inward FDI flows increased from 28% to 33% over 1982-93. In Mercosur too, there is evidence of significant expansion of FDI inflows; the share of the Mercosur countries in the stock of US FDI increased from 3.9% in 1992 to 4.4% in 1995.

Agglomeration:

Increasing returns to scale may be external to the firm, as well as internal, suggesting that expansion of one firm might benefit other firms in the same location that operate in similar or

related activities. These external economies can arise through a number of different mechanisms. One is simply direct technological externalities, such as knowledge spillovers from firm to firm. Alternatively, they may be due to pecuniary externalities, arising as changes in quantities interact with market imperfections that prevent marginal benefits from being equal to marginal costs; expanding an activity with marginal benefit greater than marginal cost creates a positive pecuniary externality, as does contracting an activity with marginal benefit less than marginal cost. Thus, demand and supply linkages between firms can create external increasing returns, as one firm's expansion increases the demand for intermediates produced by imperfectly competitive suppliers, increasing their profits and attracting further firms into the location. Similarly, if one firm's employment expansion draws skilled workers into the area, it may benefit other firms in the area, creating overall increasing returns. Or if one firm's expansion leads to an increase in public investment in increasing returns to scale activities (such as infrastructure provision), again there may be benefit to other firms and overall increasing returns.

One of the consequences of such external returns are that industry is likely to cluster, as firms seek to benefit from the proximity of other firms (Fujita, Krugman and Venables 1999). The clustering may occur at different levels – perhaps particular functions (eg the concentration of R&D activity), perhaps the concentration of whole industries (eg financial services), or possibly the concentration of manufacturing and business services as a whole. It has been argued (Henderson, Shalizi and Venables 2000) that the last of these is particularly likely in developing countries, partly because the relevant sources of increasing returns are likely to be important across a wide range of sectors (eg, infrastructure provision is important for all sectors, and more likely to be patchy in a developing than a developed country), and partly because regions in developing countries are less likely to run into diminishing returns (due to land use policy or labour shortages) than are regions in high income countries.

What is the effect of regional integration in such a world? By making it easier to supply customers from a single location it is likely to promote clustering of activity. This clustering will have three main sorts of effects. First, it brings with it efficiency gains, as firms benefit from the externalities created by other firms. Second, an expansion of overall activity levels is likely to follow from these efficiency gains and cumulative causation may develop, leading to the 'take-

off' of a country's industrial development. Thus, by creating a large internal market an RIA may act as a catalyst, facilitating the formation of an agglomeration of activity that may be able to achieve a 'critical mass' (Puga and Venables 1998). Notice that this argument is essentially inwards looking, based on expansion of the domestic market. The extent to which such an agglomeration can eventually expand through exports depends also on external trade policy and the region's comparative advantage in the sector.

Third, development of a successful agglomeration at the aggregate level also brings with it a potential cost. Agglomeration of activity in one country is likely to be associated with an increase in inequality between countries in the RIA. It is worth linking this with our earlier discussion of integration and comparative advantage. We saw then that the 'intermediate' country would become the supplier of manufactures to the more 'extreme' country in the RIA, and would experience income gain, whereas the extreme country could lose. Agglomeration effects are likely to amplify this, concentrating benefits in just one of the countries. The unequal division of the benefits of RIA has sometimes been a source of political tension within RIAs (or economic unions more generally), examples including the ante-bellum US, East and West Pakistan, and the old East African Economic Community.

3.4 Technology transfer.

A major source of benefit to be derived from increased openness is better access to technology. Empirical research has linked international technology transfers to both trade and investment flows (see for example Keller 2001), although much ignorance remains about the determinants of these transfers. What might the impact of regional integration be on such flows? The first point is simply that the potential for technology transfer is much greater within a North-South scheme than a South-South scheme. Second, at least part of the transfer is likely to be through FDI flows, and we have already seen how secure trade relationships might increase investment in production networks and how larger markets might encourage horizontal FDI. Effects of FDI on local productivity levels are typically argued to come from backwards linkages inducing domestic suppliers to improve quality or efficiency; from forward linkages, improving distribution and retail networks or developing local downstream production; from labour market

training; and from demonstration effects. There is a good deal of case study evidence of the importance of all these mechanisms, although the picture from econometric studies is more mixed (see Blomstrom, Kokko and Zejan 2000 for a survey).

3.5 Factor prices, adjustment, and political economy.

We have outlined a number of different ways in which membership of a RIA can affect trade flows, production structure and overall income. What about the internal distribution of these income changes?

Factor prices change in response to changes in trade patterns and production structures. For a North-South RIA we expect to see the Southern country experience an increase in its wage-rental ratio (or wage of unskilled workers relative to skilled), as production intensive in the abundant factor expands. For South-South RIAs the situation is more complex, depending on characteristics of the partner country. In terms of our earlier example, the 'extreme' country (although it experiences welfare loss due to trade diversion) will see an increase in its wage-rental ratio, as it exploits its comparative with its partner. However, the 'intermediate' country sees its wage/ rental ratio go in the opposite direction, as it increases exports of goods in which it has a comparative advantage with the partner, but not with the world as a whole. Thus, for a South- South RIA factor prices in the poorer economy will move towards their free trade values, while in the richer economy they will tend to go in the opposite direction.

Production networks will locate their more labour intensive stages in labour abundant economies, and this will tend to raise the wage-rental ratio and move factor prices towards their free trade levels. However, more complex patterns of factor price change are possible. It may be the case that activities that relocate are labour intensive relative to other activities in the Northern economy, but capital intensive relative existing activities in South. In this case they will tend to reduce the wage-rental ratio in both the integrating countries (Feenstra and Hanson 1997).

How does this inform our thinking about the political economy of RIA membership? The argument is sometimes made that membership of an RIA is a stepping stone to fuller trade liberalization, as it mitigates the adjustment costs and redistributational implications of reform. This is confirmed, in so far as the impact of an RIA on factor prices is generally less than the

impact of full free trade. However, in a South-South agreement one of the countries – the higher income one – will see its factor prices moving away from their free trade values. Thus, from a political economy perspective, it is a step away from free trade not a step towards it.

4. Regionalism: policy choices

A country considering making regionalism a part of its development strategy faces a number of choices, including; with whom, and how deep? In this section we review these choices.

4.1 With whom?

Much of the analysis of section 3 was addressed to the implications of RIA membership with countries with differing characteristics. We argued that a South-South RIA offers potential benefits from better exploitation of economies of scale and the opportunity to increase the intensity of competition in local markets. However, it is not clear that South-South RIAs have always been able to achieve these benefits, as they depend heavily on the depth of integration, discussed in more detail in section 4.3 below. South-South RIAs enable countries to increase trade according to their comparative advantage relative to each other, although this may be different from their comparative advantage relative to the world as a whole. Thus, the lower income member will suffer trade diversion as it imports goods from a partner with intra-RIA comparative advantage, but not global comparative advantage. The higher income member will see its trade and production structure move in the opposite direction from the way it would if it were exploiting its global comparative advantage. Inequality between the countries is likely to be increased, particularly if agglomeration mechanisms accentuate production changes arising from intra-RIA comparative advantage.

North-South RIAs seem to offer better prospects. One disadvantage is that the likely changes in trade flows are larger, as are changes in production structure and factor prices. However, these are changes that are in line with countries' global comparative advantage, as well as their intra-RIA advantage. The growth of outsourcing and production networks provide reasons to believe that the potential for exploiting this comparative advantage vis-a-vis a high income partner is now larger than it has been historically, and the growth of foreign direct

investment suggests increased opportunities for technology transfer.

In addition to these purely economic arguments, a number of political economy arguments have been put forward in favour of North-South agreements (see World Bank 2000). The most important of these is that if RIA membership is being used as a commitment to reform (possibly reform going beyond trade), then it is important that the partner country has the means and incentive to punish deviations (eg by withdrawal of preferential trade access), and that the costs of this punishment are high enough to deter deviation from the reform programme.

4.2 Depth of integration:

Tariffs and other formal trade barriers between countries are only a small part of the costs that are involved in crossing a border. The importance of borders is vividly demonstrated by research which shows that Canadian provinces' exports to other Canadian provinces are around 20 times larger than their exports to equivalently located US states, this choking off trade by as much as would more than a thousand miles of physical space (Helliwell 1997).

What are these other costs of borders, and what can be done about them? There are four main types. The first are all the costs associated with different languages, political and legal systems, cultures and information flows; from the point of view of this study they can be regarded as exogenous, and beyond the scope of policy. The second are border formalities to do with customs administration, administration of tax systems and frontier delays. Third, are issues to do with product standards. And fourth, are a set of issues to do with the additional uncertainty that is associated with trading across a border. This includes uncertainty about trade policy – is contingent protection likely to be used? - and uncertainty about exchange rate movements.

It is generally difficult to get direct evidence on the magnitude of the costs associated with each of these elements, but it is likely that their economic implications are large. They are real resource costs, unlike tariffs which are transfer payments. Quite small trade frictions can have important effects in inhibiting the development of production networks, and in facilitating firms' segmentation of markets, frustrating attempts to intensify competition. The importance of currency fluctuation is debated, and while there is little evidence that currency volatility has a major effect on trade flows some authors have come up with large effects of currency union

membership on trade volumes (Frankel and Rose 2000). In remaining parts of this section we discuss some of policy choices that RIA members face in connection with these trade frictions.

Customs unions and free trade areas:

In a free trade area (FTA) countries are free to set their own external trade policy, whereas in a customs union (CU) the RIA as a whole sets a common external policy. The great advantage of a CU is that, because members have a common external tariff, it is possible to have much simpler internal border formalities (possibly none at all). In contrast, an FTA leaves external trade policy to individual member governments, and faces a problem known as *trade deflection*; the redirection of imports from outside countries through the FTA member with the lowest external tariff, to exploit the tariff differential. If unconstrained, this reduces the effective tariff of every member to that of the lowest plus the transportation cost involved in indirect importing. The usual solution is *rules of origin*, the apparently reasonable requirement that goods qualifying for tariff-free trade should be produced in a member country, rather than just passing through it.

The costs of implementing rules of origin are high. Controls on goods crossing internal frontiers have to be retained to ensure compliance and to collect customs duties. Customs authorities (and individual customs officers) may have a good deal of discretion, and the attendant danger that such discretion might be abused. Rules of origin are particularly complex because they have to take into account tariffs on imported intermediate goods used in products manufactured within the FTA. The principle is that imports from outside the FTA should pay the tariff of the country of final sale, but additional value added in FTA members should be tariff free. In practice calculations are not made on such an exact basis but instead according to more or less arbitrary rules, typically stating that exports have to derive a certain proportion of their value from local content or undergo certain production processes within the FTA to obtain duty-free treatment.⁴ The rules are complex and hard to negotiate (the EU's agreement with Poland has 81 pages of small print in its rules of origin section, and NAFTA some 200, Krueger 1997), and since they do not match the exact inputs in each commodity, they introduce further biases and sources of distortion. For example, NAFTA rules of origin in some sectors have protective effects that shift trade and investment patterns from lower- to higher-cost sources. Most clothing

produced in Mexico gains tariff-free access to the North American market only if its inputs are virtually 100 percent sourced in North America. In the automobile industry, the origin requirement of 62.5% local content has induced Japanese automobile manufacturers with plants in Canada to produce components in the US rather than import cheaper ones from Japan. Even with complex rules of origin in place, the problem of FTA imports entering through the country with the lowest external tariff is not entirely solved. A low-tariff partner can meet its own requirements from imports and export a corresponding amount of its own production to its partners (called indirect trade deflection, Robson 1998).

Thus, there are substantial benefits to going to a CU, yet only a small minority of RIAs notified to the GATT/WTO are in fact CUs. What are the costs? The main one is that harmonization of external trade policy means a loss of national autonomy. Political institutions need to be put in place to ensure that these tariffs are set in a consensual way, and tariff revenues generated by the common external tariff have to be distributed between member countries. In the EU these revenues are part of the central budget and spent on agreed programs, yet the level of each member's net contribution or receipt from the budget remains contentious. In many developing country CUs, difficulties of agreeing on a common external tariff and distribution of revenues have proven to be great.

Contingent protection:

Contingent protection measures include anti-dumping, countervailing duties (in response to foreign subsidies) and 'emergency protection' to address balance of payments problems or to protect an industry from surges in imports. While contingent protection has been abolished within the EU it remains applicable in all the EU's agreements with other countries except the European Economic Area. Within some RIAs contingent protection is widely used; in Mercosur, Argentina initiated 33 anti-dumping cases on imports from Brazil between 1992-96 (Tavares and Tineo 1998). What are the benefits and costs of removing these measures, as has been done in the EU, the Canada-Chile FTA, and the Australia-New Zealand agreement?

Contingent protection provides a major barrier to trade, not only when actually applied to trade flows, but also by its mere existence, which has a 'chilling' effect on trade. For example,

the threat of initiation of antidumping actions can lead to an immediate fall in trade as importers seek to avoid the costs of posting bonds required by Customs authorities while the investigation is ongoing. Empirical estimates of the ‘chilling’ effect on trade find that threatened exporters often agree to raise prices and maintain historical market shares, so contingent protection becomes an instrument facilitating collusion between domestic and foreign firms (Messerlin 1990, Staiger and Wolak 1989).

These are powerful arguments for abolition of contingent protection, but they encounter several counter-arguments. The first is that dumping can be predatory, when a foreign firm (or cartel) seeks to force domestic competitors out of the market by pricing below cost, with the intention of raising prices once the competition is gone. However, research suggests that predation is very much the exception not the rule in anti-dumping cases, and that in most anti-dumping actions an antitrust authority would not have intervened on competition grounds (Messerlin 1997).⁵

The second counter-argument is that if countervailing duties are to be suspended, then measures are needed to restrain or coordinate industrial subsidies that may have a negative impact on domestic firms. When such subsidies are being used there are valid economic justifications for the use of countervailing duties (Dixit 1988). However, in general contingent protection is an inefficient instrument to deal with the effects of foreign subsidies or industrial policies, as it imposes additional costs on domestic consumers without greatly increasing the incentives of the foreign government to change its policies. Small countries in particular are unlikely to have much success by pursuing retaliatory policies—all they will end up doing is adding an additional distortion to consumption. The appropriate policy is to draft rules that restrict the ability of RIA members to use industrial policies in ways that are detrimental to the welfare of other member countries. In practice, this may be difficult to achieve; only a limited number of RIAs have done much to discipline the ability of members to provide subsidies.

Border controls, public procurement and product standards:

Trading across international borders encounters real costs of delay, form filling, re-certification of products, and so on. There may be policy bias in purchasing, eg, public procurement may

favour local producers over imports.

Border formalities can be reduced by good customs administration and the use of standard procedures. Much of this is possible independently of RIA membership, by adopting best practices in the area of customs administration and implementing international conventions aimed at trade facilitation. However, it is likely that the needed measures are easier to implement within an RIA, because of the inherent simplicity of not collecting duties on internal trade, and the development of common approaches and institutions (such as the adoption of standard paperwork)

In the EU, increasing awareness of the fact that these frictions prevented full market integration – and thereby impeded the scale and efficiency effects that we discussed in section 3.3 – was a major motivation for the Single Market or ‘EC-1992’ programme. The project involved adoption of almost 300 measures to eliminate intra-EU barriers, including:

- Simplification and in some cases abolition of intra-EC border controls. Eg, replacement of border paperwork by an EU wide system of administering value added tax on cross-border transactions.
- Progress towards deregulation of the transport sectors of EU countries, including measures to reduce restrictions on hauliers from one country accepting loads in another.
- The opening of public procurement in EU countries to effective competition from suppliers in all EU countries. Measures include the requirement that public projects be advertised in EU wide publications.

Further barriers to trade are created by variations in national product standards. Estimates from Egypt in the early 1990s, showed that redundant testing and idiosyncratic standards alone imposed taxes equivalent to between 5 and 90 percent of the value of shipments (Hoekman and Konan 1999). The issues raised by product standards are complex, since countries can genuinely differ on what they regard as acceptable levels. Countries seeking to reduce the barriers created by differing standards can follow two alternative routes – harmonization and mutual recognition.

Harmonization can be achieved by unilaterally adopting the standards of another country or group of countries or by developing ones own set of common standards. The EU experience

suggests that the latter process is extremely slow and painful (it took over a decade to reach agreement on the composition of fruit jams and mineral water, and only nine directives on foodstuffs were adopted between 1962 and 1979). Differences in national norms, reflecting national tastes, history, legal regimes—and producer lobbies seeking to restrict competition from imports—made it difficult to achieve the required consensus.

The alternative to harmonization is mutual recognition, under which member countries simply accept that goods that are legally traded in one member state can be legally traded in all. This principle was incorporated into the Single Market program and has proved to be a powerful tool for increasing cross-border competition in European markets. However, it raises two quite difficult issues. First, countries have to be able to agree on the minimum norms that should be met to safeguard public health and safety or maintain the integrity of public networks. Second, there has to be mutual trust in the competence and ability of the national institutions responsible for enforcing the relevant mandatory standards. Thus, even if all members accept the levels at which standards are set, it may require significant institutional strengthening for one country to accept that another's testing and certification procedures are adequate.

Investment flows:

At various points we have referred to the likely effects of foreign direct investment flows in an RIA. These may be flows from outside, or from partners within the RIA, as plants move to exploit the comparative advantage of different locations and to compete more directly with host country firms. In practice, there can be substantial barriers to such investment. The barriers take many forms, including: absolute barriers to establishment in some sectors or activities; requirements that foreign equity not exceed a certain percentage of the total; domestic content requirements or export requirements, requirements that FDI projects meet targets not imposed on national firms; and obstacles to repatriation of profits.

Little progress has been made on liberalizing these restrictions on a multilateral basis. The OECD's proposed Multilateral Agreement on Investment sought to overcome some of these barriers, establishing, for example, a binding dispute settlement procedure, but the initiative failed. Many Bilateral Investment Treaties are now being established (with something over 1000

currently in place). These typically specify national treatment (the principle that partner country residents are treated no less favourably than domestic residents), and specify dispute settlement procedures. The case for incorporating formal investment codes in a RIA is strong – we have seen the potential importance of both horizontal and vertical FDI. In practise, this has gone furthest in the EU. NAFTA also contains investment provisions, as does APEC, although the latter are non-binding.

Services Liberalization:

Service trade is inherently more complex than goods trade, for two reasons. First, in many service activities problems of asymmetric information are particularly acute; the purchaser does not know the quality of a professional service being purchased until after it has been paid for and consumed. And second, service trade frequently requires consumers and providers to be at the same place at the same time.

The first of these complexities creates a proper need for regulation of such service activities. Service suppliers must obtain certification or licensing in such fields as financial services, law, accountancy, and medicine. However, standards are often set by professional bodies that have an interest not only in creating a reputation for ensuring quality, but also in restricting entry and limiting competition. The second complexity – that services providers typically have to be established in the country they are supplying -- is an inherent obstacle to international trade

The combination of these two considerations has made services trade notoriously prone to trade restrictions, and hard to liberalize. We see existing services trade restrictions taking many forms. Many countries restrict the access of foreign services and service suppliers to domestic markets, and sometimes trade in services is simply prohibited. Rights of supply may be restricted to domestic firms (e.g., in domestic transportation and basic telecommunication services), or to domestic residents (e.g., in legal, insurance, educational, surveying or investment advisory services). Even if there are no formal prohibitions, there are often major barriers to entry, such as professional standards set in a way that requires foreigners to engage in costly re-certification.

This restrictive starting point, and the fact that most of the barriers are essentially quantity restrictions (prohibitions and regulations rather than tariffs) means that gains from opening up services trade to international competition are likely to be particularly large. Indeed, from a starting point of prohibitive barriers, a preferential liberalization cannot be trade diverting, so a major source of ambiguity about gains from preferential liberalization is absent.

In addition, the fact that the service sector is an input to so many other activities in the economy – production, commerce, trade, and education – makes it particularly important that the sector functions efficiently. Failure to liberalize services when goods trade is being liberalized in a RIA can give rise to the phenomenon of negative effective protection. Output is not receiving tariff protection, but inputs are (implicitly, in the form of the barriers to service trade), so creating negative incentives for the development of activities that use these services.⁶

If liberalization is to be pursued, it can proceed through various channels. The General Agreement on Trade in Services (GATS) provides a multilateral framework. Most RIAs have not gone much beyond what has been achieved in the GATS, the main exceptions being the EU and NAFTA. NAFTA has made substantial progress using a negative list system, so all service sectors are covered unless specifically exempted. Other RIAs vary in their coverage of services. In Mercosur, free circulation of services is a long-term objective to be achieved by 2007; progress has been slow, with members still negotiating a framework agreement. ASEAN members have agreed to full liberalization (on a preferential basis) in most services by 2020. The FTAs between the EU and Mediterranean countries do not include services, while those with the CEE countries do.

Despite the slow progress, there are several reasons to think that RIAs may, for many countries, offer a more effective route to service liberalization than does the multilateral system. First, service liberalization may involve labor mobility – service providers need to become established locally, and this typically involves temporary if not permanent residence. Politically, this may be easier to achieve in an RIA than on a non-discriminatory basis. Second, procedures are needed to make sure that quality standards are met. These issues are conceptually similar to those we saw with product standards – agreement on harmonization or, if mutually agreeable standards are in place, on mutual recognition. Achieving these within an RIA may be easier than

establishing them for all-comers.

5. Conclusions

Regional integration may make it possible to go faster with deep integration than could occur through unilateral or bilateral trade liberalisation. Removal of trade frictions, simplification of border controls, and service and investment liberalization are possible, and bring with them substantial potential benefits, exposing sectors to increased competition and increasing efficiency. Deep regional integration also offers a security of trade flows which is important for encouraging foreign direct investment and the development of production networks.

However, regional integration is inherently a ‘second best’ policy, likely to be associated with trade diversion and specialisation according to regional comparative advantage, which is not necessarily also global comparative advantage. The extent to which this occurs depends on choice of partners. We have argued in this paper that these costs will be greatest in South-South regional agreements which can increase inequalities between member countries and distort production away from countries’ global comparative advantage. These arguments point to the need to accompany South-South integration with external liberalization, or with inclusion of large Northern partner countries.

Endnotes:

1. See Baldwin and Venables (1997) for a technical survey. The literature contains very little on choice of partner, and the material here draws on and extends Venables (2000). Figures come from a numerical simulation of a model outlined in this paper
2. Thus Germany starts to import textiles, say, from Portugal rather from a country with global comparative advantage in textiles.
3. APEC has yet to implement tariff reform.
4. Examples are from *Trade Blocs*, World Bank, 2000.
5. Furthermore, if there is predation, national antitrust should be able to address the problem; and this can be done unilaterally—there is no need for international agreement or harmonizing competition regimes.
6. Estimates for Egypt suggest that trade barriers in services reduced effective rates of protection for manufacturing activities by some 30 percentage points (Djankov and Hoekman 1997).

References

- Baldwin, R. E. and A.J. Venables (1997), “International Economic Integration,” in G. Grossman and K. Rogoff (eds.) *Handbook of International Economics*, vol. 3. Amsterdam: North Holland.
- Bayoumi, T. and B. Eichengreen (1997), “Is Regionalism Simply a Diversion: Evidence from the Evolution of the EC and EFTA”, in Ito, T. and Krueger, A. O. NBER East Asia Seminar on Economics, vol. 6, *Regionalism versus Multilateral Trade Arrangements*, Chicago, The University of Chicago Press.
- Blomstrom, M. and A. Kokko (1997), “Regional Integration and Foreign Direct Investment: A Conceptual Framework and Three Cases,” Policy Research Working Paper 1750, Washington DC: The World Bank..
- Blomstrom, M., A. Kokko and M. Zejan (2000), *Foreign direct investment; firm and host country strategies*, Macmillans, London,.
- Chang, W. and L. A. Winters (1999), “How Regional Blocs Affect Excluded Countries: The Price Effects of MERCOSUR”, Centre for Economic Policy Research, Discussion Paper Series, no. 2179, June
- Cox, D. and R. Harris (1985), “Trade liberalisation and industrial organization; some estimates for Canada, *Journal of Political Economy*, 80, 456-475.

- Dixit, A.K. (1988) 'Antidumping and countervailing duties under oligopoly', *European Economic Review*, 32, 55-68.
- Djankov, S. and B. Hoekman, (1997) "Effective Protection and Investment Incentives in Egypt and Jordan: Implications of Free Trade With Europe," *World Development*, 25:281-91.
- Dollar, D. and A. Kraay (2000), 'Trade, growth and poverty', mimeo World Bank.
- Engel, C. and John H. Rogers (1996), "How Wide is the Border?," *American Economic Review*, vol. 86, no.5, December, pp. 1112-1125.
- Feenstra, R. and G. Hanson (1997), "Foreign Direct Investment and Relative Wages: Evidence from Mexico's Maquiladoras", *Journal of International Economics*, vol. 42, pp. 371-93.
- Fernandez, R. and Portes, (1998), "Returns to Regionalism: An Analysis on Nontraditional Gains from Regional Trade Agreements." *World Bank Economic Review* 12(2):197-220.
- Flores, R. (1997), "The Gains from MERCOSUL: A General Equilibrium, Imperfect Competition Evaluation", *Journal of Policy Modeling*, vol. 19, pp. 1-18.
- Francois, J. and C. Shiells (1994), *Modeling Trade Policy: Applied General Equilibrium Assessments of North American Free Trade*. Cambridge: Cambridge University Press.
- Frankel, J. (1997) *Regional Trading Blocs in the World Economic System*. Washington DC: Institute for International Economics.
- Frankel, J. and A. Rose (2000), 'Estimating the Effect of Currency Unions on Trade and Output', NBER Working Paper No. W7857
- Fujita, M., P. Krugman and A.J. Venables (1999), *The Spatial Economy: Cities, Regions, and International Trade*, MIT press, Cambridge MA.
- Hanson, G (1996b) 'Economic Integration, Intra-industry Trade, and Frontier Regions', *European Economic Review*, 40(3-5), 941-49.
- Hanson, G (1998) 'North American Economic Integration and Industry Location', *Oxford Review of Economic Policy*, 14(2), 30-44.
- Harrison, G., T. Rutherford, and D. Tarr, (1994), "Product Standards, Imperfect Competition and the Completion of the Market in the EC," Policy Research Working Paper 1293, World Bank.
- Helliwell, J. (1997) 'National borders, trade, and migration', NBER working paper no 6027, Cambridge MA.
- Henderson, J.V., Z. Shalizi and A.J. Venables, (2001), 'Geography and development', *Journal of Economic Geography*, 1, 81-106.
- Hoekman, B. and D. Konan, (1999), "Deep Integration, Nondiscrimination, and Euro-Mediterranean Free Trade," Discussion Paper 2095, London: CEPR.
- Hummels, D. (2000), 'Time as a trade barrier', mimeo, Purdue University.
- Hummels, D., J. Ishii and K-M Yi (2001) 'The Nature and Growth of Vertical Specialization in

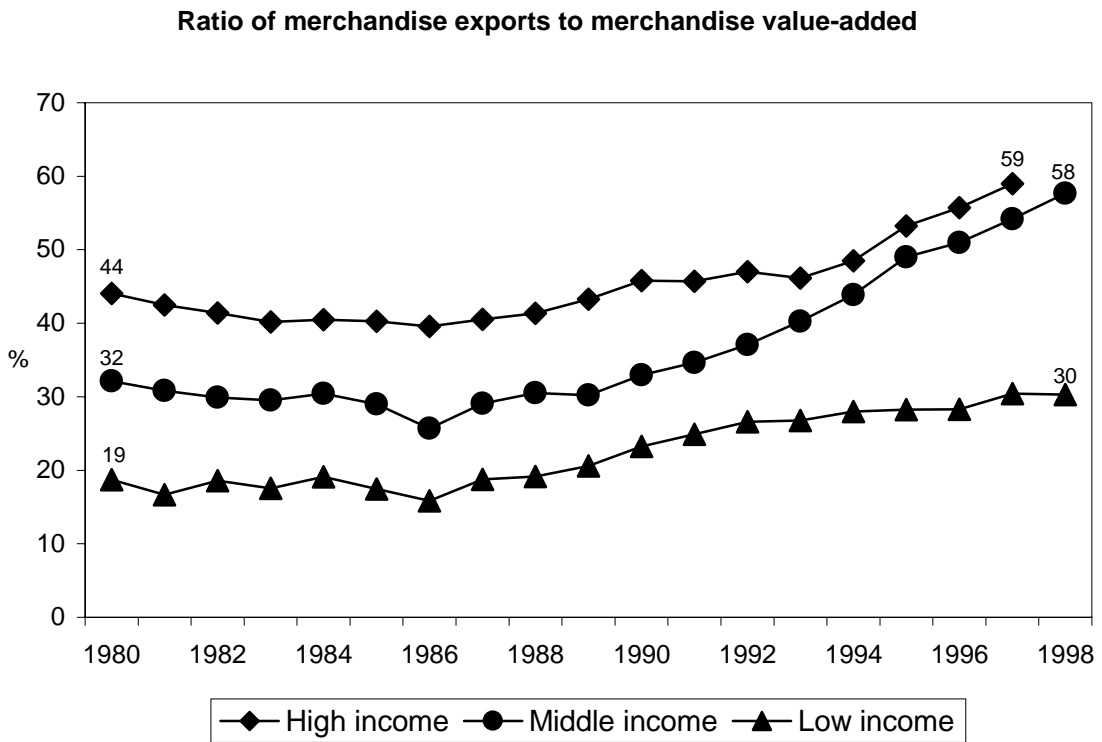
- World Trade' *Journal of International Economics*, 75-96.
- Keller, W. (2001), 'The geography and channels of diffusion at the world's technology frontier', processed University of Texas.
- Krueger, A. O. (1997), "Free Trade Agreements versus Customs Union", *Journal of Development Economics*, vol. 54, pp.169-187.
- Krugman, P. and A.J. Venables, (1996) 'Integration, specialization and adjustment', *European Economic Review*, papers and proceedings, 40, 959-967.
- Lindert, P. and J. Williamson (2001) 'Does globalization make the world more unequal', mimeo Harvard University.
- Messerlin, P. (1990) 'Anti-dumping regulations or pro-cartel law', The EC chemical cases' *World Economy*, 13, 465-92.
- Messerlin, P. (1997) 'Reforming the rules of anti-dumping policies' in H. Siebert ed., *Towards a new global framework for high technology competition*, Mohr, Siebeck.
- Midelfart-Knarvik, H.G. Overman, S. Redding and A.J. Venables (1999), "The location of industry in Europe", CEPR, London.
- Puga, D and Venables, A.J. (1998) 'Trading arrangements and industrial development', *World Bank Economic Review*, 12, 221-249.
- Robson, P. (1998), *The Economics of International Integration*. London: Routledge.
- Roberts, M. and J. Tybout, (eds.), (1996), *Industrial Evolution in Developing Countries: Micro Patterns of Turnover, Productivity, and Market Structure*, Oxford University Press
- Rodriguez, F. and D. Rodrik (1999), 'Trade policy and economic growth; a skeptic's guide to the evidence, mimeo, University of Maryland.
- Smith, A. and A.J. Venables (1988), "Completing the Internal Market in the European Community: Some Industry Simulations", *European Economic Review*, vol. 32, no. 7, September, pp. 1501-25.
- Soloaga, I. and L. A. Winters (1999), "Regionalism in the Nineties: What Effect on Trade?", Centre for Economic Policy Research, Discussion Paper Series, no. 2183, June.
- Srinivasan T.N and J. Bhagwati, (1999) 'Outward-orientation and development; are revisionists right', mimeo Yale University.
- Staiger, R. and F. Wolak. 1989. "Strategic Use of Antidumping To Enforce Tacit International Collusion," NBER Working Paper 3016.
- Tavares, J. and L. Tineo, (1998), "Harmonization of Competition Policies among Mercosur Countries", *Antitrust-Bulletin*, 43(1), Spring, pp. 45-70.
- Viner, J. (1950), *The Customs Union Issue*, Carnegie Endowment for International Peace.
- Winters, L. A. and W. Chang, (forthcoming), "Regional Integration and the Prices of Imports: An Empirical Investigation". *Journal of International Economics*.

World Bank (2000), *Trade Blocs*, World Bank Policy Research Report, Oxford University Press, Oxford

Venables, A.J, (2000) "Gainers and losers from regional integration agreements", CEPR dp no 2568, <http://econ.lse.ac.uk/staff/ajv/jpap4.pdf>

Yeats, A. (1998) 'Just how big is global production sharing' World Bank Policy Research Working Paper no. 1871.

Figure 1: Trade to income ratios



sources: NBER World Trade Database, World Bank World Development Indicators

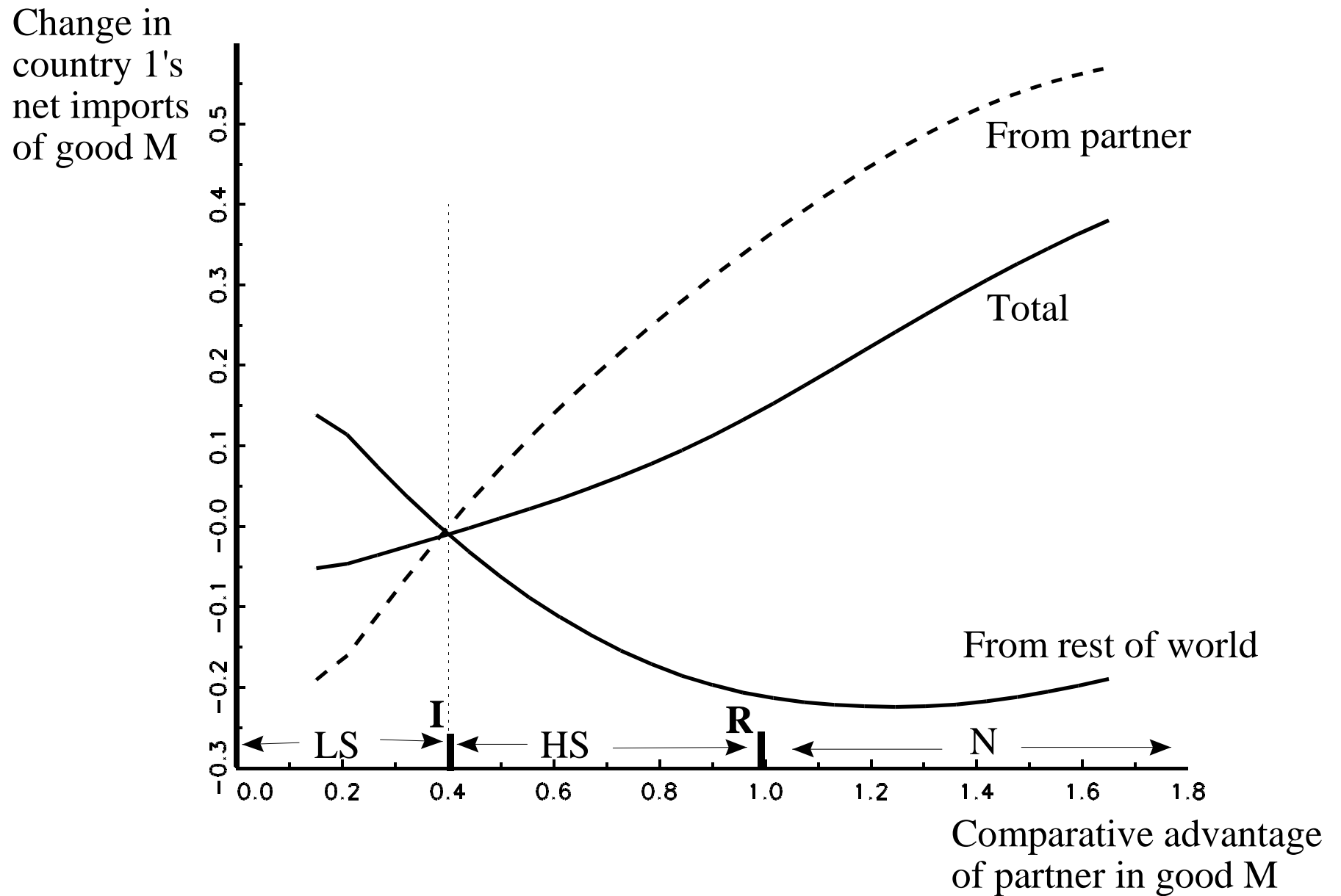


Figure 2: Trade creation and diversion with different partners

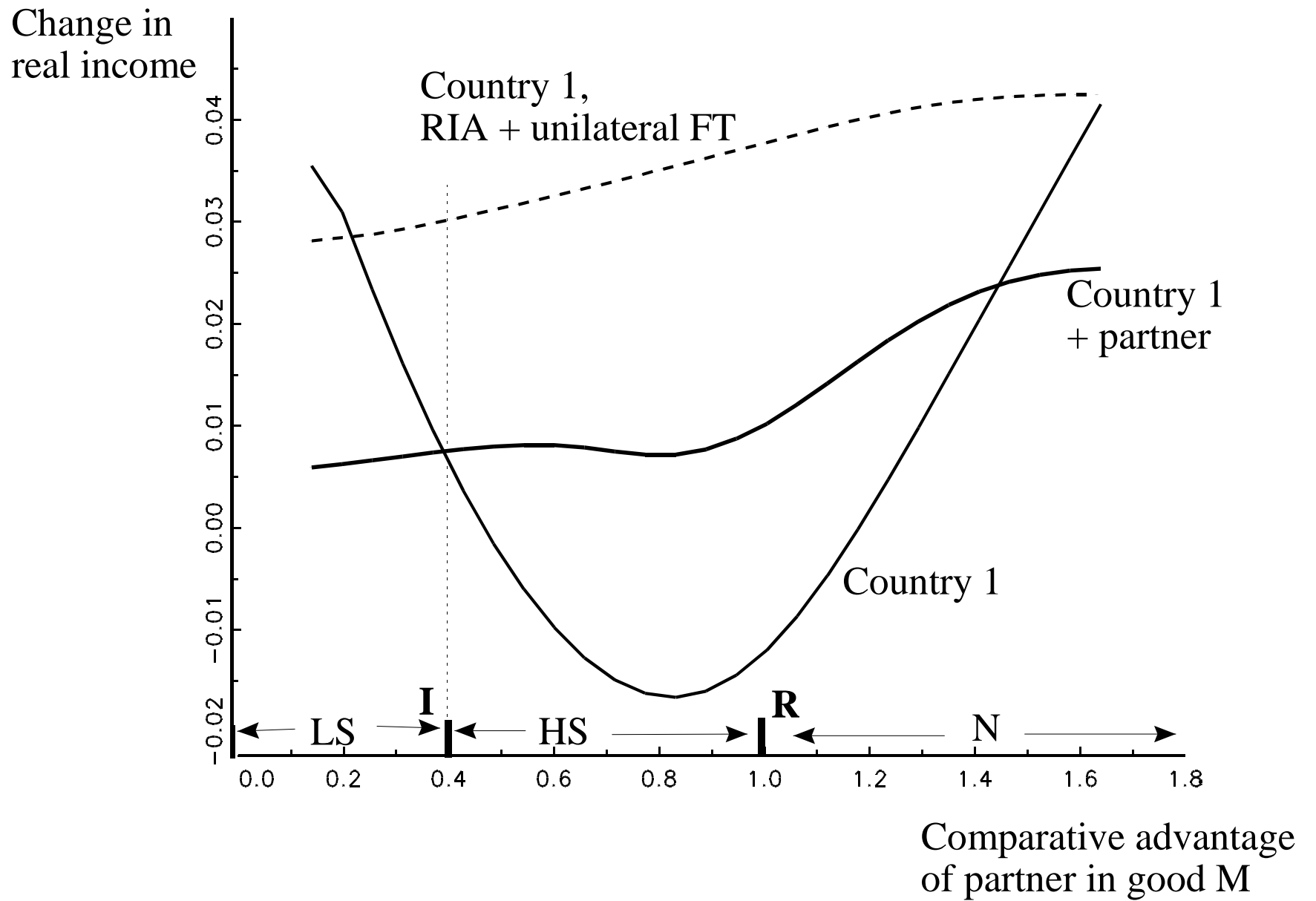


Figure 3: Real income change