



UNU-CRIS Occasional Papers

O-2006/18

Assessing RTAs in the Context of the Flying Geese Framework

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1. Introduction

Historical evidence suggests that development and trade are co-varying variables. Which one leads the other is the big question that has been debated at length in political economy. Trade isolated as an end in itself had never been a policy for any of the nations which are now counted among the developed countries of today. On the contrary, we see several different industrial strategies, institutional settings, going hand-in-hand with strategic trade policies.

The linkages between trade and development are complex and have been extensively debated in the literature. We see this complexity clearly when we look at the earlier studies focusing on the impacts of trade liberalization and external integration. There is no consensus on the relationship between trade liberalization and development. The conclusion that increased trade is sufficient for development is controversial. The best that can be said is that a consensus that there is no consensus on a direct correlation between external integration and development. Rather, development is associated with several different strategies and policies depending on the political, social and economic structure of the country or the region.

In an integrated world economy, no single country can be analyzed in isolation from the world-wide regime. This is true not only because countries engage in trade but because there are many regulating regimes at multilateral and/regional levels, constraining nations' trade and economic policies both legally and practically. Since the beginning of the last decade, Regional Trade Agreements (RTAs) have become an important feature of the global trading regime, imposing major changes in the international trade structure. Hence,

national strategies and policies cannot be discussed independently of the prevailing global geopolitical regime.

Within the human development paradigm, trade is conceived of as a means to human development,² not an end in itself. Many studies have focused on the question of whether RTAs expand trade, applying a welfare impact analysis on the net impacts trade creation and diversion. Our view is that we should not stop there. There is a need to identify the links between trade and development more carefully. We argue that this requires first questioning analyses that are solely based on trade performance. This requires incorporating other impacts from a more holistic view of development. We suggest that any ex-post or ex-ante evaluation of RTAs should involve human development impact assessments.

The underlying interest of this paper is to review assessments of RTAs, particularly within the context of Asia and the Pacific, and relate these to the broader objectives of regional cooperation directed at human development. We first review RTAs in general and summarize the theoretical debates with their policy implications in a broad-spectrum. A review of the methods used in earlier studies is useful for our purposes, thus an overview of these methods with their main findings is what follows next. Then we present where RTAs stand vis-à-vis the current multilateral trading regime and discuss what the limits and/or challenges are for developing countries in the context of RTAs. Next follows a discussion of the ‘flying geese’ framework, which provides, we argue, a potential alternative to conventional frameworks to analyze regional cooperation and the last section concludes.

2. RTAs and South-South Trade

The rapid proliferation of regional trade agreements (RTAs) since the beginning of the last decade has induced a major change in the international trade structure. Ironically, since the establishment of the WTO and its ‘Single Undertaking’ the number of RTAs has increased

² See Section 2 of UNDP [2005] for an expanded discussion of the links between human development and trade. Section 3 of the same paper discusses the linkages between trade outcomes and trade policy and the Millennium Development Goals (MDGs)

dramatically³ (See figure A1 in Appendix). Almost all WTO members are now engaged in at least one regional agreement⁴. Traditionally RTAs are concluded among bordering countries, with comparable levels of development; however, the new wave of regionalism can involve diverse countries located in different time zones⁵. Recently we are also witnessing changes both in the scope and the content of RTAs. Many of the new waves of RTAs involve provisions beyond tariff liberalization to include more intrusive obligations, especially on intellectual property rights, services, and investment. More and more countries have recognized the fact that not only the removal of trade barriers but also elimination of non-tariff limitations is required for effective economic integration.

The accelerating process of regional integration has spawned several debates on the role of RTAs in development. In the broader context, regional cooperation would necessarily reflect a wide-ranging set of interconnected links among countries pertaining to their economic, social and/or political structures⁶. Such links are formed and shaped by existing differences among countries. Moreover, interconnectedness at regional level results in transforming the socioeconomic and political structures of countries involved. In fact, they also have indirect impacts on the outsider countries as well. Given how potentially complex and deep regional cooperation can be, the analysis here will focus on RTAs under the rubric of trade and development.

The issue of regional economic cooperation had been considered peculiar to advanced countries. The possibility of regional economic cooperation between developing countries and their potential have been recognized in development debates mainly only after the Second World War. This coincides with the time when the view of development in the

³ As of January 2005, 312 RTAs have been notified to WTO/GATT (of these, 170 are in force) and a further 65 are estimated to be operational although not yet notified" (Crawford et. al., 2005, p.2-3).

⁴ Mongolia is the only WTO member not engaged in any RTAs. The share of preferential trade in total trade for some of WTO members is high as 90 percent (Crawford et. al., 2005, p.1).

⁵ There is even a recent WTO discussion paper on RTAs, which argues that because RTAs are becoming increasingly complex complicated rules of origin makes trade more costly and complex (Crawford et. al.[2005, p.16]).

⁶ See Camilleri [2003] for discussions of regionalism in depth.

‘South’ is not only necessary for the ‘South’ but for the ‘North’ as well. Promoting regional integration among developing countries has become an idea in the realm of common sense as part of proposals for development strategies, even though the actual practice has been spotty and results have tended to be difficult to measure.

Early debates on regional trade agreements were in the context of how close trade agreements were to the free trade ideal, whether or not these agreements were worldwide, regional, or bilateral. The analytics of the proposition free or freer trade always improves welfare has been extensively developed. Starting in the late 1980s, the question shifted to how good is free trade? For whom? And what type of trade is good. Much of the research in theoretical literature started analyzing the comparative implications of intra versus inter-industry trade. In a similar manner, the diverse effects of trade were recognized, and the different implications of ‘South’-‘North’ or ‘South’-‘South’ trade.

Research has turned its attention to the issue of regional agreements versus multilateral agreements. The changing nature of international trade over time is a key driver of the new focus. In the last decade, ‘South’-‘South’ trade has increased as much as twice as much as world trade and this has increased interest in the significance of regional cooperation vis-à-vis multilateral institutions.

RTAs in practice can be categorized as in figure A2 in Appendix from preferential trading areas to economic union according to provisions they cover. Under Preferential Trading Areas (PTAs) member countries agree to reciprocal partial tariff reductions. As they move from PTAs to free trade areas, the partial coverage of agreements turn toward the elimination of all tariffs and non-tariff barriers (NTBs). Customs unions are characterized by a common trading policy among member countries vis-à-vis non-members. These three forms belong to the shallow integration stage [Das 2001, p.11]. Deeper integration involves a common market, which covers provisions on movement of factors of production besides goods and services. And lastly an economic union includes national fiscal and monetary policies, including potentially tax policy and a common currency.

A recent report by UNIDO highlights the changing nature of South-South trade. In the case of manufacturing trade, the key trends are (UNIDO 2005):

1. The annual growth rate of South-South trade is 7 per cent per year during 1995-2000, a rate faster than the growth of global trade. At the level of \$ 703 billion in 2003, South-South trade has almost doubled in the last decade.
2. The annual growth rate of South-North manufacturing trade has been high as well; around 7 per cent, reaching \$ 931 billion in 2003, achieving an increase in market share in the North of 3 per cent in 1995-2003.
3. The market share of North-North trade in manufactures declined due to a slower growth rate. Yet, total value reached \$ 2,800 billion in 2003, \$ 100 billion more than North-South, South-South and South-North manufactured trade flows combined.

The report looking at the shift in the shares of regions in South-South trade acknowledges that East Asia dominates South-South trade with more technology intensive exports. However, while this benefits some regions, it in general occurs at the expense of other regions argues the UNIDO report. Sub-Saharan and Latin America suffer declining shares in resource-based and low-tech exports. On product-based analysis, the UNIDO report states that five out of the top ten products in South-South trade are high-technology manufactures (electronics) and more than 95 per cent of all South-South trade in electronics products, parts and components is accounted for by East Asia. East Asia also has an important share in the other largest most important products such as refined petroleum products (64 per cent), textile yarn (79 per cent), and polymerization and copolymerization products (86 per cent).

Overall, according to UNIDO [2005] prosperity in East Asia has been accompanied by further marginalization of Sub-Saharan Africa. South-South trade expansion has had asymmetric implications for different regions.

3. Overview of Theoretical Debates

In the West, theoretical debates on RTAs begin at the start of 1950s. That was when regional economic integration and theory of customs unions began in its present form

(Viner [1950], Lipsey [1957]). The welfare effects of economic cooperation has been the main focus of analysis. The concepts of trade diversion and trade creation were first introduced by Viner [1950]. Trade creation refers to the replacement of national production by trade when a partner is able to produce more efficiently. Trade creation is presumed to have a positive impact on welfare, arising from increased consumer surplus. Trade diversion refers to the shifting of imports from a more efficient country outside the cooperative agreement to a member country; through consumer surplus effects, this reduces welfare. These welfare gains and losses are calculated from a static framework. The basic argument posed was that economic cooperation benefits or gives harm to a member country depending whichever effect is stronger i.e. diversion or creation.

Extensions of the basic framework involve assuming diverse initial conditions for participating partners. However, the concepts of trade creation and diversion have remained the basic approach in most of the studies last fifty-five years. For instance, Venables [1999] argues that RTAs if formed among low income countries are likely to harm the lowest income member due to trade diversion. Unless there is at least one high income member, convergence to high income level is not possible (Venables [1999, p.20]). The study supports earlier findings by Bhagwati and Panagariya [1996] that demonstrate the growing significance of trade diversion from non-members and least-cost suppliers and is likely to reduce welfare not only to outsiders but also to participating countries. Elevated trade and investment diversion is conceived as marginalizing the 'weakest' countries (Crawford et. al. [2005, p.16]).

On the other hand, critiques of the conventional framework emphasized the significance of dynamic effects of economic cooperation rather than static impacts. There are many studies in the literature arguing that economic integration provides several possibilities for developing countries such as higher economies of scale with product differentiation. Also higher division of labor, hence higher productive efficiency, is mentioned as another benefit of RTAs. Such discussions indicate basically a recognition of possible impacts of RTAs on productivity and growth.

Among others, resource pooling (i.e. human resources or providing R&D expenditures jointly) and the extended diffusion of technology (i.e. higher technology spillovers, cheaper and more appropriate technology transfers) are considered to be the most significant factors in triggering economic growth. The argument about the potential of RTAs to create an environment for members to merge their R&D expenditures and form regional R&D clusters in the region has found a strong support in the literature. Since uncertainty matters much in R&D expenditures, sponsoring them jointly might enhance higher motivation. For instance, Schiff et. al. [2002] find that both North-South and South-South R&D flows have a positive impact on total factor productivity. Although, the study concludes, in the end, that RTAs are likely to favor the development of low-R&D-intensity industries in the South and might retard the economic transformation of member countries to a high-R&D economy by reducing technology spillovers from the North (Schiff et. al. [2002, p. 16].) the same result can also be interpreted as RTAs are good for growth unless countries are locked in trading only with each other.

One other strand of counter-arguments against adverse impacts of RTAs points to the trade and investment relations. Blomström and Kokko [1997] argues for diverse impacts of RTAs on investments in general, particularly on FDI. RTAs affect FDI flows through two channels. First there are indirect effects through trade liberalization. Second, there are effects through changes in investment rules imposed within RTAs. How RTAs affect FDI depends on total magnitude of these two effects (Blomstrom and Koko [1997, p.2-3]). The study basically points out the fact that RTAs provide higher potential for investment, as a result of a bigger market size. On evaluating the diverse implications on different member countries of MERCOSUR, (Blomstrom and Koko [1997, p. 29-30]), they suggest inclusion of provisions in RTAs to facilitate FDI.

Possible benefits of RTAs from investment point of view are discussed in other studies as well. Fernandez [1997, p. 27] states that RTAs might provide certainty and credibility as to the future policies and economic environment, which increase private investment⁷. There is yet another study on the positive welfare impacts of RTAs, which points to political

⁷ By reducing uncertainties via commitment, signaling and insurance mechanisms RTAs might serve to increase credibility and provide benefits to member economies.

dimension of RTAs. Schiff and Winters [1997] argue that, when viewed as a tool of diplomacy, RTAs unambiguously increase welfare since it reduces security tensions and conflict among members and addresses some existing externalities (Schiff and Winter [1997, p. 29])⁸. This supports also evolutionary arguments on the implications of Cold War dynamics on cooperation and inter-state relations.

4. RTAs in Asia-Pacific Context

In Asia, countries have been involved in regional integration for many years, including the regional system of tariff preferences, the Bangkok Agreement, and sub-regional processes like SAFTA and AFTA. Recently, there has been an intensification of efforts to deepen such ties through the negotiation of bilateral FTAs, including within the framework of agreements between sub-regional groupings. China has become active in negotiating such FTAs, and countries like Japan, which have historically been aloof to RTAs, are re-invigorating their efforts. Asian countries are also negotiating FTAs with countries outside the region. SAPTA members recently agreed to make a transition to a South Asian Free Trade Area (SAFTA) from the beginning of 2006, with full implementation completed between 2009 and 2013. Questions thus arise on how these new integration arrangements promote trade and development, benefit and impact the poorer sections of society, and indeed whether they are compatible with the letter and spirit of the multilateral trading system.

De Lombaerde, Pietrangeli and Weeratunge [2006] evaluate existing systems for evaluating the progress of regional agreements. The authors highlight the lack of a conceptual framework in many of the proposals which has led to an inconsistency between indicators and objectives of such monitoring processes. They stress the importance of the participation of all the relevant stakeholders which is considered a crucial factor in developing more effective indicator systems. In this context, the authors emphasize the need

⁸ See Brown et. al. [2005] for a counter-argument. The authors argue that regional cooperation is no panacea for regional conflict (Brown et. al. [2005, p.14]). RTAs cannot be taken as automatic brake on conflict. Even beyond, regional integration according to the authors can actually create tensions and trigger conflict via creating adjustment costs, social dislocation and widening wealth inequalities. trade diversion and exclusion can create tensions between members and non-members of trade agreements.

for improvement in the design and implementation of tools to monitor regional integration processes.

The empirical methods commonly used in previous studies to assess the impacts of RTAs can be categorized under three groups: *trade indices*, *gravity models*, *computable general equilibrium models*. The trade index approach involves the use of static measures of trade performance depending on the type of goods traded. Box 1 summarizes the definitions and the basic formulas of the indexes commonly used.

Recent research suggests that in the case of South Asia, there have been changes in the pattern of intra-regional trade. Pitigala [2005, p. 8] provides a review of intra-regional trade shares in total trade in selected years starting from 1981 to 1998. Table A2 in appendix is adapted from this study. The significant impacts of RTAs in the region can be observed from figures in table A2. In aggregate, South Asia intra-regional trade doubled in eight years (the figure is 4.9 percent in 1998 where it is only 2.4 in 1990). The figures first imply that the significance of intra-regional trade increased in all member countries. Second, compared to the other regions, South Asian region's performance is very low in absolute terms, but when we look at the impacts in each country, we observe that figures for Bhutan (from 10 percent to 72 percent) and Nepal (12 percent to 33 percent) demonstrate significant increase. Given the fact that these two countries are landlocked this change might not be surprising, yet, such a notable increase would not have been achieved without RTAs. Thus RTAs have an important potential to increase trade for cases such as landlocked countries.

The differing bargaining power and capabilities stemming from asymmetric political and economic strengths of nations are well-known drawbacks of regional trade agreements. Intra-regional imports shares in Bangladesh, Maldives and Sri Lanka rise more than the export shares. One underlying reason Pitigala [2005, p.9] argues is the imbalance as a consequence of India maintaining a higher level of border protection relative to its neighbors. Such imbalances may also have dynamic effects that show up on the extent of diversification of exports of the members. India and Pakistan are cited as the only countries

exporting a wide range of manufacturing goods from automobiles to medicine whereas others exports are concentrated usually in a single sector such as beans, rice or apparel.

Box1. Definitions and Index Formulas

One of the widespread indicators used is changes in the pattern of intra-regional trade in order to see the impacts of RTAs. Intra-regional trade calculations are based on intra-industry trade index. The IIT index ranges between zero and one, with larger values indicating a greater level of trade between firms in the same industry. Higher IIT ratios suggest that net gains from specialization in different products are being exploited and that the participating country is increasing its integration into the world economy. IIT is calculated as $IIT_{jk} = 1 - [sum_i | X_{ijk} - M_{ijk} | / (X_{ijk} + M_{ijk})]$ Where X_{ijk} and M_{ijk} represent exports and imports of products from industry i in country j to and from country k . Increase in intra-industry trade according to some studies influencing the success or failure of efforts to promote industrialization and growth plays an important positive role. Intra-industry exchange produces extra gains from international trade over and above those associated with comparative advantage because it allows a country to take advantage of larger markets. By engaging in IIT, a country can simultaneously reduce the number of products it produces while increasing the variety of goods available to domestic consumers.

Other indicators are the trade intensity index and trade complementarity indices.

Trade intensity index is used to determine whether the value of trade between two countries is greater or smaller than would be expected on the basis of their importance in world trade. It is defined as the share of one country's exports going to a partner divided by the share of world exports going to the partner. It is calculated as: $T_{ij} = (x_{ij}/X_{it})/(x_{wj}/X_{wt})$ Where x_{ij} and x_{wj} are the values of country i 's exports and of world exports to country j and where X_{it} and X_{wt} are country i 's total exports and total world exports respectively. An index of more (less) than one indicates a bilateral trade flow that is larger (smaller) than expected, given the partner country's importance in world trade.

The trade complementarity (TC) index can provide useful information on prospects for intraregional trade in that it shows how well the structures of a country's imports and exports match. It also has the attraction that its values for countries considering the formation of a regional trade agreement can be compared with others that have formed or tried to form similar arrangements. The TC between countries k and j is defined as: $TC_{kj} = 100 - sum_i (| m_{ik} - x_{ij} | / 2)$ Where x_{ij} is the share of good i in global exports of country j and m_{ik} is the share of good i in all imports of country k . The index is zero when no goods are exported by one country or imported by the other and 100 when the export and import shares exactly match.

Source: World Bank Resources International Economics and Trade in East Asia and the Pacific. Definitions are taken from: Hoekman, Bernard, Philip English and Aaditya Matoo (editors). 2003. Development, Trade and the WTO: A Handbook. Washington, D.C.: Worldbank.

4.1 Gravity model estimations

The basic underpinning of gravity models is Newton's Law of Gravitation. The simplest equation used in gravity models predicts a positive relation between the volume of trade among two economies and the size of these economies (i.e. real GDP or per capita income is used as a proxy for size) and negative relation with respect to transaction costs (i.e. proxied by geographical bilateral distance). Standard simple equation can be summarized as follows:

$$T_{ij}^t = f(GDP_i^t, GDP_j^t, D_{ij}^t)$$

where T_{ij} is the trade flow such as exports from country i to country j at time t . GDP_i and GDP_j are the proxies used representing the size of the two economies. D_{ij} shows the distance between two countries such as distance between capital cities.

Trade is positively associated with size. The underlying assumption is high level of income indicates high level of production which would lead to high level of exports in the exporting country. In a similar way a high level of income in the importing country also implies a high level of imports that would again increase the amount of trade flows between the two i.e. level of exports in this case. On the other hand trade is restrained by longer distance as distance represents transaction costs that make trade costlier. The estimations employ a log-linear form of the above equation:

$$\log(T_{ij}^t) = \alpha_0 + \alpha_1 \log(GDP_i^t) + \alpha_2 \log(GDP_j^t) + \alpha_3 \log(D_{ij}^t) + u_t$$

u_t is assumed to have normal distribution. The expected signs of the coefficients for GDP variables are positive and for distance variable it is negative. There are many different versions of this model in the literature. Specific to RTAs usually different dummy variables are added. Some models also use different proxies for the size of economies such as GDPs weighted by the population of the countries included.

Table A3 presents some of the earlier studies on RTAs in Asia and the Pacific using gravity model estimation. The focus of analysis column indicates that these studies explore multiple dimensions, including the role of inward FDI on RTAs is as such. The weight of appears to fall toward the view that the trade creation impact of RTAs is offsets its trade diverting effect. And there is also evidence for investment creation in case of RTAs in Asia. Yet, the studies show that these outcomes cannot be attributed to all regional arrangements in the region.

4.2 Computable General Equilibrium (CGE) Models

CGE models have been used to assess both the *ex ante* and the *ex post* impacts of RTAs on production and trade structures, employment, consumption and welfare. Table A4 surveys CGE-based studies. This table contains numerous instances where the benefits are positive and potentially large for participating members, at the same time that the arrangements are significantly trade diverting. The parties that would tend be hurt would be outsiders, notably the U.S. There is also the notable result that individual unilateral liberalization can lead to a deterioration in the terms of trade, which can be overcome by concerted liberalization. Still another finding is that “natural trading blocs” made up of countries that have complementary economies can be significantly trade diverting. Because many of the researchers undertaking the studies are based in Australia, there is a disproportionate number of RTA studies involving Australia and New Zealand, two countries which have much interest in commodity and agricultural exports. The largest benefits, however, to participating countries across many of these studies are in manufacturing, and these benefits would accrue to Japan, Korea, China, and the ASEAN countries.

5. RTAs within the context of Multilateral Trading Regime

Many economists have pointed out the risks of FTA proliferation. Findlay *et al.* [2003] in a paper that also interprets the motivations of countries undertaking FTAs, point out five risks associated with the proliferation. These five risks are: (1) inefficiency, (2) retaliation by non-members, (3) architecture of FTAs particularly as created by specific rules of origin,

(4) political economy of reform because FTAs could reinvigorate domestic lobbies against overall trade liberalization, and (5) increased political tension among members.

By their nature, RTAs represent an exception to multilateral trading system and its one basic principle as of most-favored-nation principle. This fact has raised the question of whether RTAs pose a threat to WTO rules and objectives; whether the RTAs are building blocks or stumbling blocks. Some argued that RTAs are harmful to WTO rules not only because they diversion away from multilateral trading system, but also because they may lead to spaghetti-bowl problem due to their very diverse nature (Bhagwati (1995) and Krueger (1995))

On the other hand, there are many studies which take the view that regionalism is much more complementary to multilateral system, rather than posing a threat they are building blocks (Baldwin (1997), Ethier (1998) and Lawrence (1999)). A more general answer to the question concerned is provided by Winters (1998). The study points out the fact that it is not possible to answer the question easily. Yet, the study suggests RTAs might simplify the process to reach agreement at the multilateral level by reducing the number of players.

A recent report by IDE APEC Study Centre discusses the existing practices of North-South RTAs, how they conflict with WTO rules. The study also identifies which North-South RTAs are compatible with WTO rules (Yanai [2004]). Under current rules, there are mainly two categories of principles related to RTAs. RTAs involving trade in goods are largely governed by Article XXIV of the General Agreement, whereas trade in services is governed by Article V of the GATS. Box 2 summarizes the general legal framework under WTO system for RTAs as discussed in this study. Based on these principles, North-South RTAs, must be reciprocal and must cover substantially all the trade. Yet, for instance, none of preferential schemes implemented by the EC and the United States satisfy this requirement. The EU's arrangement with the ACP countries began with the Lomé Convention (now the Cotonou Agreement), while the United States established the CBI and the AGOA (legislated as national law), which benefits Caribbean or sub-Saharan countries through a discriminatory tariff measure. These examples are aimed at a limited groups of

developing countries do not meet the criteria under Article XXIV, and it is argued that hence all preferences need a waiver from WTO rules (Yanai [2004, p.27-28]).

Box 2. On Legal Frameworks for RTAs under WTO rules

The study by IDE APEC Study Centre states that there are two categories of rules on RTAs in the area of trade in goods: the first is based on Article XXIV of the General Agreement on Tariffs and Trade (General Agreement), which generally applies to all RTAs; the second is based on the so-called Enabling Clause, which, in exceptional circumstances, provides special and differential treatment (SDT) or RTAs among developing countries. Although both categories allow for deviations from the WTO guiding principle of non-discrimination, the necessary conditions of RTAs negotiated under the rules differ considerably as the author argues.

GATT system was established with the fundamental principle of non-discrimination. Beyond that an unconditional MFN clause was added as well. Given this, by construction WTO would not allow the creation of any new preferences. However, RTAs are recognized as exceptions to MFN obligations under the WTO system. For the establishment of RTAs specific conditions are imposed depending on the type, through three legally-binding rules: Paragraph 4 to 10 of Article XXIV of the General Agreement, Article V of the General Agreement on Trade in Services (GATS), and the so-called Enabling Clause. (Yanai [2004, p.4]).

Article XXIV of the General Agreement provide the basic rules and definitions on preferential arrangements covering trade in goods. For instance, a customs union (CU) or a free trade area agreement has to meet the condition, phrased as “substantially all the trade.” This requires that duties and other restrictive regulations of commerce must be eliminated on “substantially all the trade” between the constituent territories of a CU or a free trade area in products originating in such territories. Besides the condition, “substantially all the trade,” there is also a “stand still” condition: the duties and other regulations of commerce should not on the whole be higher or more restrictive than the general incidence of the duties and regulations of such commerce applicable in these countries prior to the formation of a CU or free trade area. And a reasonable length of time” condition: any CU or free trade area should be formed within “a reasonable length of time.” This ambiguous term has lately been clarified to mean exceeding ten years only in exceptional circumstances. All RTAs and interim agreements must be notified to the Council for Trade in Goods (CTG) and be examined by the Committee on Regional Trade Agreements (CRTA) for their conformity to these criteria. In addition to these criteria, clarifications added on like all parties should liberalize their trade in products on a reciprocal basis. Article XXIV only covers RTAs “between the territories of contracting parties.” In other words, any RTA involving a non-contracting party cannot be understood as an RTA in the terms of Article XXIV and, consequently, cannot be justified as an exception to MFN obligations. In order for RTAs involving non-members to be approved, the procedure is expected to be in accordance with Article XXIV: 10.

The Enabling Clause legalized derogations from MFN obligations in favor of developing countries. The Enabling Clause covers regional or global arrangements entered into “amongst less-developed contracting parties” for the mutual reduction or elimination of tariffs and non-tariff measures “on products;”. Trade arrangements among developing countries are designed not to raise barriers to or create undue difficulties for trade with any other contracting parties. Trade arrangements among developing countries shall not constitute an impediment to the reduction or elimination of tariffs and other restrictions to trade on an MFN basis;. Trade arrangements among developing countries are to be reported to the Committee on Trade and Development (CTD). Notification and examination of the consistency of such arrangements with WTO rules are not essentially required.

The introduction of the Enabling Clause into the WTO legal framework implies approval of two different rules applicable to preferential trade arrangements in goods. Which rule applies to the relevant RTA depends on the status of participating parties. RTAs that include even one developed country as a participating party are governed by Article XXIV, whereas RTAs between developing countries fall into the Enabling Clause category. From the viewpoint of the current WTO legal system, North-South RTAs are covered by Article XXIV. One major challenge as the author states is the lack of definition of a “developing country” within the leads to another problem of what countries can enjoy the rights granted by these provisions. However, some cases were or are examined for their compatibility with WTO rules by the related committee. For example, Mercado Común del Sur (MERCOSUR) is under examination by the CRTA.

6. Regional Cooperation and Regional Trade Agreements

Standard approaches for evaluating regional trade agreements utilize a metric that measures the distance between truly free trade and the less-than-free trade rules resulting reciprocal deals among countries. With relaxation of assumptions about the complete substitutability of goods across borders and the introduction of dynamic effects, the sophistication in the application of this metric has increased. However, this sophistication has been bought at the cost of results that suggest that it might indeed be in the interest of subgroups of countries to form trading blocs, and beggar the rest of the world, a result that most trade economists would frown upon. The development impact of trade is not as important as the efficiency impact and arguments about the undesirability otherwise of these results are suggested. As mentioned above, even the possibility of retaliation is an argument against countries should doing something in their interest (the proper principle being the net benefit, including the cost of retaliation).

Standard approaches do not capture the wider range of economic cooperation activities that would be development promoting as has been suggested by the flying geese literature, which is discussed in the next section, or the development literature in general. Most conspicuously missing is the investment-trade impact of regional cooperation, which only gravity models can capture reasonably. Yeyati *et al.* [2002] attempt to correlate FDI location with regional trade agreement (in this case the proposed Free Trade Area for the Americas).

Having these views, we argue an alternative framework, which emphasizes sector-by-sector trade, and production cooperation is required for an impact assessments of RTAs. While the CGE framework is capable of a sectoral disaggregation, its specifications are heavily mediated by prices, which discourage researchers from explicitly taking into consideration increasing economies of scale and learning-by-doing considerations. Research must also consider product cycles and sectoral development across national boundaries, the kind of approach that would be suggested in the following as the flying geese framework.

7. The “Flying Geese” as a Pattern of Industrial Development with Trade and Investment Flows

Akamatsu¹⁰ proposed the flying geese theory in 1935 to encapsulate regularities in the patterns of Japanese sectoral development. Akamatsu analyzed patterns of the levels Japanese imports, domestic production, and exports plotted against time on a sectoral basis and noticed each of these variables followed an inverted-V pattern¹¹ and were related to each other in a phased, overlapping, manner. For example, pattern of the level of imports increases in the initial period and would begin declining while domestic production begins to increase. When domestic production reaches a certain point, exports from the sector begin to increase. Eventually, domestic production would also begin to decline as the country loses competitiveness in the sector. He metaphorically called these patterns as “flying geese.”

As opposed to Western-style theorizing which places heavy emphasis on analyzing associations between variables, “flying geese” is heavily time-bound and instantaneous jumps, such as the hypothesized positive impacts of sudden trade liberalization, are not in prospect under this framework. Nevertheless, three basic ideas can be seen as basic underpinnings of the approach:

1. **Product cycle theory** - As it applies to specific industries, the theory conforms with Vernon’s [1966] product cycle model. Kwan [2002, p. 2] suggests that the flying geese pattern traces the product cycle trend in industrial competitiveness across sectors. Capital accumulation in the industry, interacting with forward and backward linkages with other industries, changes the comparative advantage of the country. When this pattern is examined through time across industries, one can see the march of these inverted-U curves toward industries of increasing capital intensity in successfully industrializing countries.

¹⁰ Kojima [2000] refers to Akamatsu [1935].

¹¹ The reported empirical patterns are closer to inverted U’s, not V’s. But “V” evokes the flying geese pattern better.

2. **“Pro-trade” oriented foreign direct investment (FDI)** – This refers to the transplanting of production activities from countries losing comparative advantage to other countries in the form of foreign direct investment. Kojima [2000, p. 376] refers to this FDI as “pro-trade” because the production transferred is meant to be part of the production process of the investing country, and not primarily intended to serve the market of the host country. The transplanted production activities would strengthen the comparative advantage of the host country and would represent a move toward more advanced and capital intensive production. This is consistent with a contagion pattern of growth and industrial upgrading among investing and receiving countries.

3. **“Agreed specialization”** – While Kojima’s terminology would strike most economists as a odd, it refers to the impact of cross-country production specialization if there is a need to attain a minimum scale of production.¹² When production requires a minimum optimal scale, for example, unit production costs are decreasing until such a scale is obtained. By specializing in different activities, countries could take advantage of these scale economies and attain higher production levels and lower average costs than would be the case than if they attempted to undertake all activities. Because “agreed specialization” involves trade in subparts of production, intra-industry trade is more easily explained in this framework. The competing Heckscher-Ohlin-Samuelson (HOS) model of specialization through trade is predicated on diminishing returns to scale. The HOS model explains specialization as taking advantage of a country’s inherited comparative advantage, which can be immediately accessed through precipitous trade liberalization. The HOS model is reticent about (domestic and foreign) investment and how comparative advantage can be built up subsequently in more advanced sectors.

There has been a discussion about the utility of the “flying geese” framework. Is a purely descriptive account of Japanese trade-oriented development, mostly unconsciously implemented, which has no policy implications? Is the framework outdated and inapplicable because of the possibility of “leapfrogging” and because the product cycle is much shorter?

Using Kojima [2000]’s interpretation, some of the policy implications of this framework can be summarized as follows:

1. **The role of investment** - The framework places equal emphasis on investment as on trade flows, as an explanatory variable to the patterns of imports, domestic production, and exports by sector.

2. **Development and gradual liberalization** - The “regional liberalization of trade (and investment) should be pursued, if gradually, so as to facilitate economic development by taking into consideration each country’s difference circumstances [Kojima 2000, p. 396]. Kojima [2000, p. 397] suggests that “... American initiatives have tended to be too ‘strong’ and often too ‘one-sided,’ demanding fast liberalization, to be realistically suitable for Asian development.”

This paper will not address the issue of whether the “flying geese” framework is a Japanese plot to re-install its World War II proposal of a hierarchical “Greater Asia Co-Prosperty Sphere” [Cummings 1984, Bernard and Ravenhill 1995]. We are interested in the framework a source of indicators with which to evaluate efforts at regional cooperation in trade and industrial development in the region.

8. Scope for Flying Geese Type Regional Cooperation

In the ideal world of independent actors, all countries are competitors in the world market and in their own domestic markets; this provides the needed pressure for innovation and efficiency. The cooperation in trade and investment among countries at different stages of development is based on the potential for mutual benefit. Are competitive pressures so dominant that they obviate regional cooperation? A key issue is: As a large economy with a significant human skill endowment, can China leapfrog the development process? A leapfrogging China will create a formidable competitor to the South East Asian economies, both in world markets and their own domestic markets.

¹² This framework would also logically apply to the situation of increasing returns to scale in different subcomponents of the production process.

Kwan [2002] analyzes the potential for competition in the region using a flying geese inspired framework. He proposes a two stage procedure. First he derives a “product sophistication index” for internationally trade products using export data and per capita incomes of the countries exporting these productions. He then calculates an overall “country sophistication index” by applying the product sophistication index to a country’s export structure. The country sophistication index then indicates whether countries are competitors or complements.

Based on these calculations, Japan has the highest level of advancement in the region, the South East Asian countries are in the midrange of sophistication, and China is evidently behind the South East Asian countries. The distribution of each country’s exports can be plotted against the product sophistication index and it is possible then to study extent to which these distributions overlap across countries. These patterns suggest that the Southeast Asian countries, tightly grouped around the middle, are competitors in terms of the sophistication of their export structures. Over time, China’s distribution curve of export sophistication has been steadily moving toward greater sophistication. In 2000, labor-intensive products still dominated China’s export structure; China and Japan were competitors in about 16.3 percent of their exports to the U.S. [Kwan 2002, p. 6]. There is a steady, but not sudden, trend in terms of China is becoming an important competitor to Southeast Asia.

These calculations highlight the potential role that industrial and technological upgrading across that is found in the literature mentioned in Section 3 as an offshoot of regional cooperation (Schiff *et. al.* [2002], Blomstrom and Koko [1997]).

9.0 Conclusion

In this paper we propose the argument that existing evaluations of RTAs based on conventional methods are not rich enough to provide all the necessary methods for assessing their impacts from a human development perspective. We claim this not only because of the static nature of conventional analysis, which leaves no room for dynamic impact assessments. More important, because increased trade does not necessarily coincide

with development, to focus narrowly on the expanded trade impacts of RTAs is to miss key aspects of the role of trade in development. The assumption that development is the default ex-post outcome of increased trade has an uncertain standing in the literature.

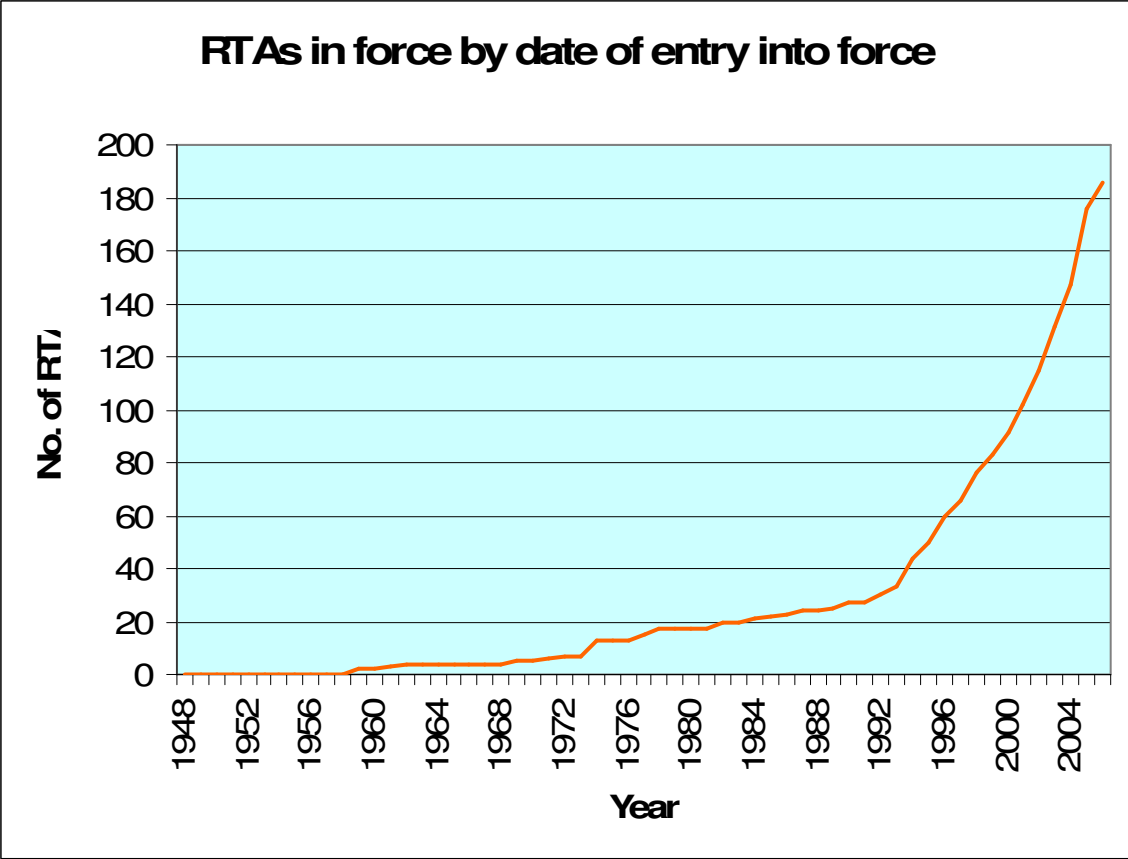
Evaluations of RTAs need to consider the possible positive and/or negative impacts on industrial development of different sectors. We believe that assessments which focus only on the changes in trade volume and ignore investment, both in terms of the extent and the sectoral structure of investment, are incomplete and do not capture the links between trade, investment and development. In this context, we think there is a scope for the flying geese framework as a possible approach to evaluating RTAs. This paper does not provide a new comprehensive framework but makes an attempt to introduce the insights of the flying geese framework, which provides a good starting point for an alternative assessment methodology. We believe further research is needed to do the groundwork for a formal approach that takes into account the shortcomings of the existing methods.

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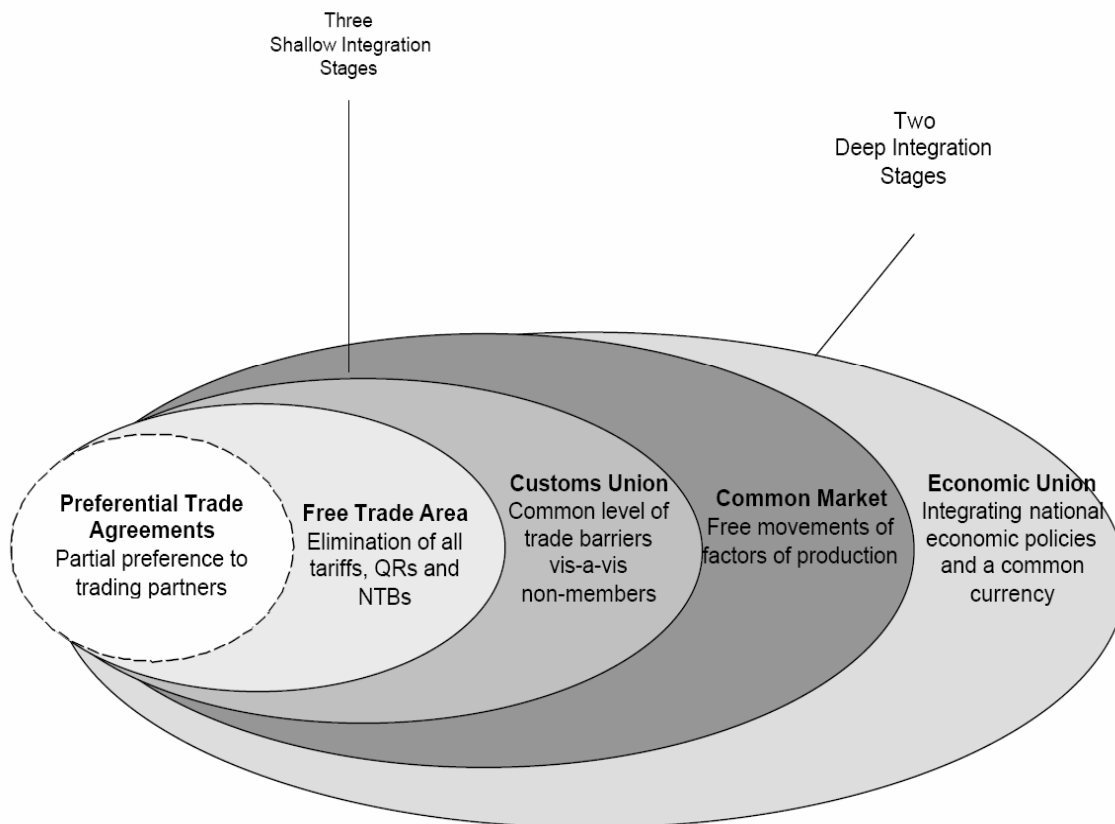
Figure A1.



Source: WTO website http://www.wto.org/english/tratop_e/region_e/regfac_e.htm

Figure A2.

Spectrum of Formal Regional Trading Arrangements



Source: Das, (2001, p. 12)

Table A1.1
Share of Intra-regional trade in total trade

	1990		2000		2001		2002		2003	
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports
EU 25	64	67	62	67	62	67	63	67	64	67
Euro Zone	53	55	48	51	49	50	50	50	50	51
CARICOM	6	8	8	14	8	14	7	12	8	12
MERCOSUR	14	9	20	20	19	17	17	11	18	12
COMESA	4	6	3	5	4	6	4	5	4	6
CEMAC (UDEAC)	4	2	3	1	3	1	3	1	3	1
UMA	3	3	3	2	4	3	3	3	3	3
ASEAN	15	19	22	23	22	22	23	23	25	21
APEC	67	68	72	73	71	73	71	73	70	73

Source: UNCTAD Handbook of Statistics 2003

Note: Shares are calculated taking percentage ratios of trade within regional group over total trade of the group (including within group trade) Percentage Shares are calculated

Table A1.2
Group's Share in Total Trade of All Groups

	1990		2000		2001		2002		2003	
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports
EU 25	35	35	30	30	31	31	31	32	32	32
Euro Zone	28	28	22	23	23	25	23	25	23	25
CARICOM	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1
MERCOSUR	0.7	1.1	1.1	1.1	1.1	1.2	0.8	1.1	0.8	1.2
COMESA	0.5	0.3	0.5	0.3	0.4	0.3	0.5	0.3	0.5	0.3
CEMAC (UDEAC)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
UMA	0.7	0.8	0.4	0.6	0.5	0.6	0.5	0.5	0.5	0.6
ASEAN	3.6	3.4	4.5	5.3	4.3	5.0	4.3	5.0	4.3	5.0
APEC	31	31	41	39	40	37	40	36	39	35
Total	100	100	100	100	100	100	100	100	100	100

Source: UNCTAD Handbook of Statistics 2003

Note: Shares are calculated taking percentage ratios of group's total trade over total sum of all groups' total trade.

Table A1.3

Group's Share in Total Intra-regional Trade of All Groups

	1990		2000		2001		2002		2003	
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports
EU 25	38	39	31	33	32	34	32	35	34	35
Euro Zone	25	25	18	19	19	20	19	20	19	21
CARICOM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MERCOSUR	0.2	0.2	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2
COMESA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CEMAC (UDEAC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UMA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASEAN	0.9	1.0	1.7	2.0	1.6	1.8	1.6	1.8	1.8	1.7
APEC	36	34	49	46	47	44	47	43	45	42
Total	100	100	100	100	100	100	100	100	100	100

Source: UNCTAD Handbook of Statistics 2003

Note: Shares are calculated taking percentage ratios of group's intra-regional trade over total intra-regional trade i.e. the sum of all groups' trade within the region

Table A2.

Officially Recorded Intra-regional Trade as a Share of Total Trade

	Intra-regional Imports				Intra-regional Exports				Total Intra-regional Trade			
	1981	1990	1995	1998	1981	1990	1995	1998	1981	1990	1995	1998
India	1.3	0.4	0.6	1.1	2.9	2.7	5.1	5.6	1.8	1.4	2.7	3.2
Pakistan	1.9	1.6	1.5	2.4	5.5	4.0	3.2	4.9	3.1	2.7	2.2	3.6
Bangladesh	4.7	7.0	17.7	17.5	7.9	3.1	2.3	2.7	5.4	5.8	12.7	12.4
Sri Lanka	5.2	7.0	11.4	12.9	8.8	3.7	2.7	2.4	6.5	5.6	7.5	8.2
Nepal	N/A	13.4	17.5	31.7	63.8	7.7	9.2	36.2	47.4	11.9	15.0	32.8
Maldives	6	7.4	4.5	7.7	22.3	13.8	22.5	16.6	9.4	9.2	6.7	9.4
Bhutan	N/A	10.9	57.5	59.9	N/A	9.6	87.9	81.9	N/A	9.7	73.5	71.8
South Asia	2.4	2.0	3.8	4.3	4.8	3.1	4.3	7.3	3.2	2.4	4.1	4.9
MERCOSUR	N/A	14.5	18.1	N/A	8.9	8.9	20.5	N/A	10.7	14.0	21.3	23.0
Andean Community	N/A	6.4	12.6	12.0	N/A	4.1	11.8	11.9	N/A	7.9	12.3	11.4
ASEAN	13.2	14.6	16.9	20.9	17.2	18.2	23.4	19.8	15.2	16.3	20.0	20.3
EU (15)	57.3	65.9	62.4	61.8	52.9	63.2	61.0	59.4	55.0	64.5	61.7	60.6

Source: Pitigala [2005, p.8] Table 2

Table A3. Previous Studies Using Gravity Models, Including RTAs in Asia and the Pacific

Selected Studies	Focus of Analysis	Main Findings
Frankel, Stein and Wei (1995)		Trade creation effect is found in case of the East Asia Economic Caucus (EAEC) and the Asia-Pacific Economic Cooperation Conference (APEC) throughout the analyzed period of 1965-1990.
Endoh (2000)	The feature and the transition of trade relations in the Asia-Pacific region during the post-World War II period.	ASEAN has had no effect of its own on promoting trade among its member countries. The volume of trade among EAEC has been at a high level compared with the hypothetical trade level since 1960. The amount of trade between EAEC economies and other APEC countries has been growing throughout the postwar period. There has been close trade relations among APEC economies plus some other Asian countries.
Otsubo (1998)	The role of FDI as a financial gravity for trade integration in APEC	APEC is more potent in creation of intra-regional trade compared to the other RTAs, trade complementarity is a significant determinant of the directions of trade and its significance has grown in the past decade; and that inward FDI is a significant determinant of the direction of intra-APEC trade transactions
Winters and Soloaga (1999)	Welfare effects of RTAs	Evidence for net trade diversion in EFTA and ASEAN by measuring the separate effects on intra-bloc trade, members' total imports and their total exports, with the view that the latter effect is an important determinant of welfare effects.
Dee and Gali (2003)	Understanding the effects of different RTA provisions in regions on trade and investment flows	Investment creation in EFTA, investment diversion in AFTA
Gosh and Yamarik (2004)	Applying extreme bounds analysis to a gravity model	Evidence for trade creation for ASEAN but they argue that the results show that the trade creation effect of most RTAs is fragile. At the extreme bounds, when all weight is attached to the prior distribution, none of the RTAs are found to be trade creating.
Elliott & Ikemoto (2004)	investigates the effect of AFTA on world and regional trade patterns	Trade flows were not significantly affected in the years immediately following the signing of the AFTA agreement in 1993 and reinforces the findings of previous studies. However, when they find evidence of a positive AFTA effect overtime that has gradually increased. They also find that the Asian economic crisis may have worked as a trigger for a further acceleration of the process and de facto economic integration itself. Evidence suggests that the effect of the Asian economic crisis was to generate a stronger desire to source imports from within the region (even though the effect seems to have been relatively small).

Table A4. Previous Studies on RTAs in Asia and the Pacific using CGE Models

Selected Studies	Experiments	Main Findings
Scollay and Gilbert (2002)	<p>Experiments are done both full trade liberalization case and for liberalization of nonagricultural goods only.</p> <ol style="list-style-type: none"> 1. China-Korea-Japan FTA 2. ASEAN+3 (ASEAN + China-Korea-Japan) 3. ASEAN plus three plus CER (ASEAN+ China-Korea-Japan-New Zealand-Australia) 4. ASEAN - China 5. ASEAN - Japan 	<p>A China-Japan-Korea FTA has the potential to provide large benefits for its members, however it would be significantly trade diverting. Expanding it to an “ASEAN+3” FTA would have even greater welfare benefits for those involved, but would still have noticeable trade diversion effects. Individual agreements with ASEAN provide only small welfare gains for China, Japan and Korea, but if they are excluded (i.e Korea from the ASEAN-Japan agreement), welfare effects become negative. Welfare for New Zealand and Australia is improved greatly in the ASEAN+3+CER arrangement, especially if agriculture is included. Japan gains most in the ASEAN+3+CER agreement, while for Korea it is second only to ASEAN+3. China experiences positive but weak effects in the context of this arrangement.</p>
Yang, Duncan and Vines (1999)	<ol style="list-style-type: none"> 1. Australasia (Australia and New Zealand) unilaterally remove trade restrictions. 2. ASEAN joins Australasia in concerted unilateral MFN liberalization. 3. The ‘Rest of Asia’ joins Australasia and ASEAN in concerted unilateral MFN liberalization. 4. Japan and North America join the countries in (3) in concerted unilateral MFN liberalization. 5. The Rest of the World liberalizes trade resulting in global trade liberalization. 	<p>Unilateral trade liberalisation can lead to a terms of trade deterioration which may overpower the efficiency gains. The APEC strategy of concerted unilateral MFN liberalisation may overcome this problem, as countries liberalise at the same time, and the terms of trade effects are lessened. Economic size is important, as large countries which liberalise unilaterally could see large terms of trade losses, although even small countries which are important traders of certain goods could see significant terms of trade effects upon liberalisation. Thus, concerted unilateral liberalization will have the best effects when countries with complementary economic structures liberalize simultaneously. Overall the results are ‘broadly sympathetic’ to APEC’s strategy of concerted unilateral MFN liberalisation.</p>
Chirathivat, Suthiphand (August 2002)	<ol style="list-style-type: none"> 1. Tariff liberalization between China and ASEAN. 2. Removal of non-tariff barriers between China and ASEAN. 	<p>Both China and the ASEAN-6 bloc stand to gain from the formation of an FTA, with overall trade creation exceeding trade diversion. In the case of ASEAN-6 there is evidence of trade diversion away from the US, Japan and the EU in favour of China. In the case of China these trade diversion effects are not so pronounced.</p>
Davis, Mckibbin, Stoekel (June 2000)	<ol style="list-style-type: none"> 1. AFTA-CER liberalisation, Australia and New Zealand embark on reduction schedule in line with AFTA liberalisation. 2. AFTA-CER liberalisation at the same time as APEC liberalization (i.e. MFN tariff rates are reduced to 	<p>The benefits of an AFTA-CER FTA have been estimated at US\$48.1 billion over time. The AFTA-CER countries benefit from net capital inflows, mostly coming from the US and Northeast Asia. The size of the gains is reduced if APEC liberalization occurs at the same time. The simulation covers only the older ASEAN(5) members Indonesia, Thailand, Singapore, Malaysia</p>

	zero by 2010).	and the Philippines. Effects on the newer ASEAN members were also estimated and were found to be similar to those the original members. Given the large amount of trade the newer ASEAN members conduct with older members, what is good for the older members is generally good for the new members.
Fukase and Martin (1999)	<ol style="list-style-type: none"> 1. AFTA accession, inclusion list and temporary exclusion list goods undergo reciprocal liberalisation. ASEAN-5 by 2003, Vietnam by 2006. 2. AFTA accession, scenario 1 and sensitive list products also liberalised. ASEAN-5 by 2010, Vietnam by 2013. 3. AFTA accession, scenario 2 and General Exclusion list liberalisation. No time frame given. 4. Unilateral. Scenario 3 plus Vietnam extends unilateral liberalisation to the rest of the world. 5. APEC liberalisation on an MFN basis to 2.5% across the board. 	<p>The static effects of Vietnam's accession to AFTA are small, excluded products limit tradecreation, while there is some evidence of trade -diversion. Since Singapore dominates as Vietnam's main export market, and trade barriers there are already low, gains from improved status in this market are small. MFN liberalisation is much more preferable. Accession to AFTA appears to benefit Vietnam's agricultural sectors, while broader unilateral liberalisation favours labour intensive manufacturing sectors. Moving from scenario 1 to scenario 4 there is a favourable impact on export volumes, however export prices fall and therefore terms of trade effects are negative</p>
Wang and Schuh (2000)	<ol style="list-style-type: none"> 1. Formation of a Chinese Economic Area (CEA). Complete tariff liberalisation between China, Hong Kong and Taiwan. Short term static effects only. 2. Formation of a Chinese Economic Area (CEA). Complete tariff liberalisation between China, Hong Kong and Taiwan. Medium term capital accumulation effects considered. 	Trade creation exceeds trade diversion and if the political relationsh ip between China and Taiwan improves and transport costs on the Taiwan Straits decrease trade flows in this area could increase three fold. The gains from economic integration are substantial but many political factors stand in the way.
Brown, Deardorff and Stern (December 2002)	<ol style="list-style-type: none"> 1. APEC liberalization (preferential, not regionalism) 2. ASEAN + 3 (Japan, Korea and China/Hong Kong) 3. NAFTA + Chile 4. Western Hemisphere FTA <p>For these four scenarios liberalisation takes the form combined removal of agricultural and manufacture tariffs and services barriers.</p> <ol style="list-style-type: none"> 5. Japan- Singapore 6. Japan- Korea 7. Japan- Mexico 	Benefits of preferential liberalisation accrue mainly to the developed countries and thus for developing countries multilateral liberalisation is more desirable. Multilateral liberalisation gives greater benefits across the board. Regional and bilateral trade agreements can be welfare enhancing for those involved, but trade diversion effects exist in almost all circumstances.

	8. Japan- Chile 9. US- Chile 10. US- Singapore 11. US- Korea	
Scollay, Gilbert, Bora (2001)	1. Singapore- Japan 2. Singapore- US 3. Japan- Canada 4. Republic of Korea (ROK)- Mexico 5. FTAA 6. Japan- ROK 7. Japan- ROK- China 8. ASEAN- Japan- ROKChina 9. ASEAN- Japan- ROKChina- CER Each RTA simulated by complete, preferential tariff removal. 10. APEC MFN liberalisation	Both the gravity model analysis and CGE simulations find that there are likely to be significant welfare gains from the realization of some of the new RTA proposals in the Asia Pacific area. In some cases there seems to be a connection between ‘natural’ trading blocs and welfare benefits. However, these ‘natural’ trading blocs are not necessarily less trade diverting, and in some cases more so. APEC MFN liberalisation is by far the most welfare enhancing and by nature of the proposal does not lead to trade diversion. The question is whether the formation of smaller RTAs in the region will ultimately lead towards, or away from, this APEC liberalisation.
Scollay and Gilbert (2001)	1. Japan- Canada 2. Japan- Mexico 3. South Korea- Mexico 4. Singapore- Mexico 5. Singapore- US 6. Pacific 5 (Singapore, New Zealand, Australia, Chile, US) 7. Japan-Chile 8. South Korea- Chile 9. Singapore- Chile 10. New Zealand- Chile 11. New Zealand- Singapore- Australia- Chile 12. Japan- Singapore 13. Singapore- Australia 14. Singapore- New Zealand 15. New Zealand- Singapore- Australia 16. South Korea- New Zealand 17. Japan- South Korea 18. Japan- South Korea (excluding agriculture) 19. Japan- South Korea- China 20. AFTA-Japan-South Korea 21. AFTA-Japan-South Korea – China 22. AFTA-CER-Japan-South Korea- China 23. AFTA-CER-Japan-South Korea 24. AFTA-CER 25. APEC MFN basis 26. APEC preferential 27. Global liberalisation	The effects of many of these subregional FTAs in the Asia-Pacific region tend to be negligible, however dynamic effects may contribute more than static effects alone can show. Larger groupings provide greater welfare benefits for those involved and avoid the complications of having various smaller blocs. APEC continues to offer superior welfare benefits for the region and is the best alternative short of complete global liberalisation. The welfare gains from having a large East Asian and/or Western hemisphere trading bloc are potentially large, but the agreements will need to be as inclusive as possible to realize maximum benefits.

Source: Selected studies obtained from bibliography compiled by Robert Scollay (2003) paper presented at PECC Trade Forum, Phuket, Thailand, May, 2003.
<http://www.pecc.org/trade/phuket-2003.htm>

Table A4. List of Regional trade agreements

AFTA	ASEAN Free Trade Area	Brunei Darussalam Cambodia Indonesia Laos Malaysia Myanmar Philippines Singapore Thailand Vietnam
ASEAN	Association of South East Asian Nations	Brunei Darussalam Cambodia Indonesia Laos Malaysia Myanmar Philippines Singapore Thailand Vietnam
BAFTA	Baltic Free-Trade Area	Estonia Latvia Lithuania
BANGKOK	Bangkok Agreement	Bangladesh China India Republic of Korea Laos Sri Lanka
CAN	Andean Community	Bolivia Colombia Ecuador Peru Venezuela
CARICOM	Caribbean Community and Common Market	Antigua & Barbuda Bahamas Barbados Belize Dominica Grenada Guyana Haiti Jamaica Monserrat Trinidad & Tobago St. Kitts & Nevis St. Lucia St. Vincent & the Grenadines Surinam
CACM	Central American Common Market	Costa Rica El Salvador Guatemala Honduras Nicaragua
CEFTA	Central European Free Trade Agreement	Bulgaria Croatia Romania
CEMAC	Economic and Monetary Community of Central Africa	Cameroon Central African Republic Chad Congo Equatorial Guinea Gabon
CER	Closer Trade Relations Trade Agreement	Australia New Zealand
CIS	Commonwealth of Independent States	Azerbaijan Armenia Belarus Georgia Moldova Kazakhstan Russian Federation Ukraine Uzbekistan Tajikistan Kyrgyz Republic
COMESA	Common Market for Eastern and Southern Africa	Angola Burundi Comoros Democratic Republic of Congo Djibouti Egypt Eritrea Ethiopia Kenya Madagascar Malawi Mauritius Namibia Rwanda Seychelles Sudan Swaziland Uganda Zambia Zimbabwe
EAC	East African Cooperation	Kenya Tanzania Uganda
EAEC	Eurasian Economic Community	Belarus Kazakhstan Kyrgyz Republic Russian Federation Tajikistan
EC	European Communities	Austria Belgium Cyprus Czech Republic Denmark Estonia Finland France Germany Greece Hungary Ireland Italy Latvia Lithuania Luxembourg Malta Netherlands Poland Portugal Slovak Republic Slovenia Spain Sweden United Kingdom
ECO	Economic Cooperation Organization	Afghanistan Azerbaijan Iran Kazakhstan Kyrgyz Republic Pakistan Tajikistan Turkey Turkmenistan Uzbekistan
EEA	European Economic Area	EC Iceland Liechtenstein Norway

EFTA	European Free Trade Association	Iceland Liechtenstein Norway Switzerland
GCC	Gulf Cooperation Council	Bahrain Kuwait Oman Qatar Saudi Arabia United Arab Emirates
GSTP	General System of Trade Preferences among Developing Countries	Algeria Argentina Bangladesh Benin Bolivia Brazil Cameroon Chile Colombia Cuba Democratic People's Republic of Korea Ecuador Egypt Ghana Guinea Guyana India Indonesia Islamic Republic of Iran Iraq Libya Malaysia Mexico Morocco Mozambique Myanmar Nicaragua Nigeria Pakistan Peru Philippines Republic of Korea Romania Singapore Sri Lanka Sudan Thailand Trinidad and Tobago Tunisia United Republic of Tanzania Venezuela Vietnam Yugoslavia Zimbabwe
LAIA	Latin American Integration Association	Argentina Bolivia Brazil Chile Colombia Cuba Ecuador Mexico Paraguay Peru Uruguay Venezuela
MERCOSUR	Southern Common Market	Argentina Brazil Paraguay Uruguay
MSG	Melanesian Spearhead Group	Fiji Papua New Guinea Solomon Islands Vanuatu
NAFTA	North American Free Trade Agreement	Canada Mexico United States
OCT	Overseas Countries and Territories	Greenland New Caledonia French Polynesia French Southern and Antarctic Territories Wallis and Futuna Islands Mayotte Saint Pierre and Miquelon Aruba Netherlands Antilles Anguilla Cayman Islands Falkland Islands South Georgia and South Sandwich Islands Montserrat Pitcairn Saint Helena Ascension Island Tristan da Cunha Turks and Caicos Islands British Antarctic Territory British Indian Ocean Territory British Virgin Islands
PATCRA	Agreement on Trade and Commercial Relations between the Government of Australia and the Government of Papua New Guinea	Australia, Papua New Guinea
PTN	Protocol relating to Trade Negotiations among Developing Countries	Bangladesh Brazil Chile Egypt Israel Mexico Pakistan Paraguay Peru Philippines Republic of Korea Romania Tunisia Turkey Uruguay Yugoslavia
SADC	Southern African Development Community	Angola Botswana Lesotho Malawi Mauritius Mozambique Namibia South Africa Swaziland Tanzania Zambia Zimbabwe
SAPTA	South Asian Preferential Trade Arrangement	Bangladesh Bhutan India Maldives Nepal Pakistan Sri Lanka
SPARTECA	South Pacific Regional Trade and Economic Cooperation Agreement	Australia New Zealand Cook Islands Fiji Kiribati Marshall Islands Micronesia Nauru Niue Papua New Guinea Solomon Islands Tonga Tuvalu Vanuatu Western Samoa
TRIPARTITE	Tripartite Agreement	Egypt India Yugoslavia

**UEMOA
WAEMU**

**West African Economic
and Monetary Union**

Benin Burkina Faso Côte d'Ivoire Guinea Bissau Mali Niger Senegal
Togo

Source: WTO