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Rules of origin and development of regional production network in Asia: case studies of selected industries

by

Biswajit Nag* Debdeep De**

* Biswajit Nag is Associate Professor at Indian Institute of Foreign Trade, New Delhi, India. ** Debdeep De is Lecturer at Jaypee Business School, Jaypee Institute of Information Technology, Noida, India. This paper was prepared as part of the ARTNeT initiative and was carried out with the aid of a grant from the World Trade Organization. The technical support of the United Nations Economic and Social Commission for Asia and the Pacific is gratefully acknowledged. The opinion figures and estimates are the responsibility of the author and should not be considered as reflecting the views or carrying the approval of the United Nations, ARTNeT, or Institute for Policy Research and Development. The authors are thankful for the valuable input and comments provided by Jeremy Tyler Harris, Trade Policy Consultant, Inter-American Development Bank and Mia Mikic, Economic Affairs Officer, Trade Policy Section, Trade and Investment Division, ESCAP. Any remaining errors are the responsibility of the authors, who can be contacted at <u>biswajit@iift.ac.in</u> and <u>debdeep.de@jiit.ac.in</u>

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Executive Summary

Rules of Origin (RoO) are essential part of trade rules that become very important in the context of increasing globalisation of production process. Most industrial goods today incorporate inputs from a wide variety of countries (e.g. automobiles, electronic goods etc) and when traded it becomes important to determine their country of origin as tariffs depend on country of origin. International production networks (IPN) promote this new pattern of trade, such that goods travel across several locations before reaching final consumers. Consequently, trade in such products can grow without a commensurate increase in their final consumption as production networks are extended across space. Thus in short, RoO define nationality of traded products. Recognising the importance of the IPN, Asia is emerging as a global hub with rising regional trading agreements acting as facilitators in the process. Rules of origin in trade agreements (Free Trade Agreements or Preferential Trade Agreements) acts as a crucial factor in the case of fragmented trade compared with trading in conventional final products. Since value added at each stage of production is normally relatively little, this kind of trade presumably is more sensitive to trade costs and delays arising from rules of origin compliance. In such arrangements RoO try to ensure that tariff preferences are enjoyed only by member country imports and not outside imports.

The current study performs a critical investigation of RoO in selected regional trade agreements (RTAs) in the Asia Pacific region, and has made attempts to study linkages with intra-regional trade in some sectors such as textiles, electronics in the form of integrated circuits, and automobile components. The study addresses the provisions of RoO for select trading agreements, compares their restrictiveness and product specific features (if any) and makes attempts to connect them with changes in intra-industry trade indexes.

The main hypothesis of the study is that an RTA/FTA with relatively simpler RoO promotes intra-industry trade and thereby helps IPN to grow. As mentioned earlier, components are in general low value products and thus the reduction of barriers should increase trade in components, which accounts for a significant portion of total intra Asian trade. The study has been done mainly through secondary data analysis. RoO provisions of important regional agreements (such as AFTA, SAARC, Japan-Singapore, India-Thailand, ASEAN-China, etc) have been studied in details with respect to some thrust industries which includes automobiles, electronics, integrated circuits, etc.

The study reflects that simpler RoO with product specific rules can act as a catalyst in trade even if tariff rates are not so low. The analysis guides us to assess sector specific restrictiveness across the agreements for possible growth of IPN. It has also been noted through the regression analysis that a higher RoO restrictiveness index inhibits the positive growth of intra-industry trade. Policy makers will get an empirical evidence of developmental impact of these RoO through their potentiality in expanding IPN.

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1. Introduction

In any trade agreement, Rules of Origin (RoO) is indispensable as they define the conditions that a product must satisfy to be deemed as originating from the country seeking preferential access. The objective is to prevent trade deflection, whereby products from non-participating countries destined for the partner country's market are redirected through free trade partners of the partner country to avoid payment of the partner country's customs duties. However, there are several intricacies in RoO which restrict the flow of goods in the region and introduce new uncertainties in trade. The complexities surrounding rules of origin may be traced from two sources. One is the difficulty of ascertaining origin in a regime of increasingly fragmented production processes. Whenever there are multi stage production process involved, RoO is used to define the methods for ascertaining whether a product has undergone sufficient working or processing in the free trade partner to qualify for preferential access. The other reason behind the complex design of many RoO is the convenience in which these rules may be used to both accommodate and conceal protectionist intentions. By attaching multiple criteria for the satisfaction of origin, RoO may be another avenue to effectively exclude product groups from a country's liberalization commitments.

The economic impact of preferential RoOs can be gauged in terms of the incentives they provide for producers to substitute higher-cost inputs from member economies for cheaper or better quality imported inputs from non-members in order to qualify for concessional entry. These costs can outweigh gains associated with more liberal trade relations between members of a preferential trade agreement (PTA). RoO can also adversely influence investment decisions and give rise to significant compliance and administrative costs for businesses and governments, respectively. The impact of RoO depends on a range of global and national factors. If economic costs are likely to rise, RoO may encourage trade diversion away from least-cost sources. This result depends on factors such as:

- the margin between preferential tariff rates and Most-favour Nation (MFN) rates;
- the overall stringency of the criteria for conferring origin; and
- the extent to which prescriptive RoO are used merely to limit the effects of preferential tariffs to members of an agreement or to achieve industry policy objectives.

A nation's trade policies depend on the country of origin determination for exported and imported goods. Determining the country of origin of traded products is thus an important issue. The Kyoto Convention (1973) prescribed three rules for determining origin: a specified percentage of value to be added locally in the exporting country; change in tariff classification of the final product from its imported intermediate inputs; and specific technical requirements. Countries use these rules in varying combinations and there is no universal set. The lack of harmonization of rules of origin is primarily due to the fact that the *effects* of a given rule will vary depending on the relative comparative advantages of the signatory countries in the production of relevant inputs. Imposing harmonized preferential RoO would only make sense if all countries had identical endowments. In reality this is not possible. RoO are applied to both preferential (used in preferential trading arrangements) and non-preferential trade (MFN trade).

In 2009, different regional co-operations like APEC, recognized Rules of Origin is a priority area promoting more business-friendliness¹. Recent studies have revealed that costs associated with administering rules of origin comprise around 6 percent of the value of goods traded within $NAFTA^2$, and as much as 25 percent of the value of goods traded within ASEAN³. These numbers suggest that preferential margins must at least be equivalent to the costs to positively influence trade flows. For example, in the APEC region, documents and procedures administering preferential rules of origin are as complex as the rules themselves as they are usually the outcome of a negotiated Studies have found out that trade in parts and components occupy a process. significant portion of the intra-regional trade in Asia. Most of the Asian countries are engaged through some kind of regional trade arrangement with each other which is governed by different types of RoO. The complex RoO is expected to harm the natural growth of trade in components. As components are mainly of low value-added products, a small decrease in tariff rates, relaxation of non-tariffs and other barriers including RoO will give a major boost to SMEs in the region.⁴

Against this backdrop, the current study performs a critical investigation of RoO in selected regional trade agreements (RTAs) in the Asia Pacific region, and has made attempts to study linkages with intra-regional trade in some sectors such as textiles, electronics in the form of integrated circuits, and automobile components. The study addresses the provisions of RoO for select trading agreements, compares their restrictiveness and product specific features (if any) and makes attempts to connect them with changes in intra-industry trade indexes.

Methodology and Data

Under the Kyoto Convention there are typically three tests which can be carried out to assess the rules of origin for a specific trading agreement, any one of these tests be required:

- *Change in tariff classification (CTC) test* a good is transformed if there is a change in tariff classification using the HS code;
- *Specified process test* a good is transformed if it has undergone specified manufacturing or processing operations which confer, or do not confer, origin of the country in which they were carried out.
- *Regional value content (RVC) test* a good is transformed if a threshold percentage value of locally or regionally produced inputs is reached in the exporting country.

¹ Page 3 of 2009 APEC Secretariat Report on APEC Developments released in 22nd Marine Resource Conservation Working Group Meeting, Vancouver, Canada1-3 June 2009

² Carrière, C. and J. de Melo, 2004. "Are Different Rules of Origin Equally Costly? Estimates from NAFTA", CEPR Discussion Paper No. 4437.

³ Manchin, M. and A. O. Pelkmans-Balaoing, 2007. "Rules of Origin and the Web of East Asian Free Trade Agreements". World Bank Policy Research Working Paper 4273 (July).

⁴ Nag Biswajit & Debdeep De, 2008, 'Integration of small and medium-sized Enterprises in International Production Networks: The automotive industry in Asia', published in Macao Regional Knowledge Hub, Working Papers, No. 12, December 2008.

Following this, an index methodology has been adopted (as discussed in Section 3) specific to the trading agreements investigated in the study. The overall index score for a particular set of RoO reflects the number of restrictions that are applied and the relative importance of those restrictions. The higher the overall index, the more restrictive is the trading regime for the members of that trade agreement. Within each restriction category, a score is assigned to the particular category of origin determination. The score ranges from 0 (least restrictive) to 1 (most restrictive). Each category also receives a weighting that indicates the relative restrictiveness of that category on the aggregate merchandise trade and firms' economic efficiency. Categories are differentiated with respect to primary, secondary and other criteria which include sector specific rules. For a particular RoO regime, the index value reflects the number of restrictions applied, the relative importance of each of those restrictions (the weight) and the restrictiveness of each variant (the score).

The main hypothesis of the study is that an RTA/FTA with relatively simpler RoO promotes intra-industry trade and thereby help international production network (IPN) to grow. As mentioned earlier, components are in general low value products and thus the reduction of barriers should increase trade in components, which accounts for a significant portion of total intra Asian trade.

The study was primarily carried out via secondary data analysis. RoO provisions from important regional agreements such as AFTA, SAFTA, Singapore-Japan, India-Thailand, China-ASEAN FTA were studied in detail. These agreements were chosen as they are the most active one in South and South East Asia. Some sectors such as electronics/integrated circuits, textiles, and auto components have been chosen to understand how intra-industry trade has changed over the time and what the corresponding dynamics of tariff reduction are in those sectors. An attempt has been made to link the restrictiveness of RoO with trade growth of these sectors. All agreements incorporate a 'cumulative' rule to accommodate the regional value addition in the production process though there is a variation in the additional capacity to cumulate diagonally or fully. The study has also looked into this aspect. These sectors are identified as they consist of a large share of the intra-industry trade in the region.

2. The Relevance of RoO to Regional Development

The literature on RoO cites a few negative economic effects of RoO especially in the context of preferential trading arrangement (like FTAs). Firstly, they give incentives to producers to purchase intermediate goods from domestic sources, even if they are costlier than imported inputs, so that their final export product meets RoO requirements (of high local value contents) and thereby qualifies for preferential treatment under the FTA. Thus trade is diverted from low-cost non-member countries (countries not party to the FTA) to high-cost member countries (Krueger 1993). From an analytical point of view, the basic effect of the RoO is to raise the production costs of the product in order to meet the binding RoO (Krishna and Krueger 1995). To meet RoO requirements, producers of export products might have to change their production decisions regarding where to purchase inputs, locate production, market their products, etc. Consequently, the RoO affect producers' cost structures, productivity and competitiveness. Restrictive preferential RoO may lead to investment diversion in the long run (Krishna 2005). They may motivate firms to

locate plants that produce intermediate goods within the territory of certain member countries to satisfy these rules despite the fact that those territories may not be the best locations from an economic point of view. Under some circumstances, they may serve as significant trade barriers. Even for relatively simple products like food products, substantial transformation requirements in RoO (and restrictions on ownership of capital equipment, such as vessels in the case of fisheries) could prove to be effective mechanisms that prevent the actual utilization of trade preferences and lead to the erosion of benefits. This is because compliance with such rules affects decisions of firms with respect to sourcing and production. For this reason, RoO tend to increase the cost of production, such that when preferences are utilized, they are used to sell goods that cost more than they would were the rules not in place.

Simple and flexible RoO help business and industries achieve economies of scale. Ideally, this should be beneficial to both multinationals and small and medium enterprises. International production networks promote new patterns of trade, such that goods travel across several locations before reaching final consumers, and the total value of trade recorded in such products exceeds their value added by a considerable margin. Consequently, trade in such products can grow without a commensurate increase in their final consumption as production networks are extended across space. The increased import content of exports has highlighted the importance of the rules applied to determine the origin of traded goods. Recognizing the importance of international production networks, some of the trading agreements encourage and promote their development. Asia is emerging as a global hub with rising trade in electronic goods like integrated circuits, textiles and automobiles and components. Rules of origin in trade agreements act as a crucial factor in the case of fragmented trade compared with trading in conventional final products. Since relatively little value is added at each stage of production, this kind of trade is presumably more sensitive to trade costs and delays arising from rules of origin compliance. Last is cumulation of origin, which implies that inputs from preferential trading partners can be used in the production of a final good without undermining the origin of the product.

The Kyoto Convention recognizes two basic criteria for determining origin: wholly obtained or produced, and substantial transformation⁵. The wholly obtained or produced category applies only to one PTA member, and asks whether the commodities and related products were entirely grown, harvested, or extracted from the soil in the territory of that member, or manufactured there from any such products. The rule of origin is met by not using any second-country components or materials. Most countries apply this strict and precise definition. The substantial transformation-criterion is more complex, involving four main components that can be used on their own or in combination with each other. The first component of the substantial transformation criterion is a change in tariff classification (CTC) between the manufactured good and the inputs from extra-PTA parties used in the production process. The CTC may require the product to alter its chapter (2 digits under the Harmonized System), heading (4 digits), subheading (6 digits) or item (8-10 digits)

⁵ The Revised Kyoto Convention is an international instrument adopted by the World Customs Organization (WCO) to standardize and harmonize customs policies and procedures around the world. The WCO adopted the original Convention in 1974. The revised version was adopted in June 1999.

numbers in the exporting PTA member. The second criterion is an exception attached to a particular CTC (ECTC). ECTC generally prohibit the use of non-originating materials from a certain subheading, heading, or chapter. The third criterion is value content (VC), which requires the product to acquire a certain minimum local value in the exporting country. The value content can be expressed in three main ways: as a minimum percentage of value that must have been added in the exporting country (domestic or regional value content, RVC); as the difference between the value of the final good and the costs of the imported inputs (import content, MC); or as the value of parts (VP), whereby originating status is granted to products meeting a minimum percentage of originating parts out of the total. The fourth RoO component is technical requirements, which require the product to undergo certain manufacturing operations in the originating country. Technical requirements (TECH) essentially prescribes or prohibits the use certain input(s) and/or the realization of certain process(es) in the production of the good. This is a particularly prominent feature in RoO governing textile products.

Besides product-specific RoO, RoO regimes vary by the types of general RoO they employ—including in the degree of *de minimis*, the use of the roll-up principle, and the type of cumulation chosen. First, most PTAs contain a de minimis rule, which allows for a specified maximum percentage of non-originating materials to be used without affecting origin status. Second, the absorption principle allows materials that have acquired origin status by meeting specific processing requirements to be considered originating when used as input in a subsequent transformation. That is, when allowed, non originating materials are not taken into account in the calculation of the value added in the subsequent transformation. Third, cumulation allows producers from one PTA member to use materials from another PTA member (or other members) without losing preferential status for the final product. There are three types of cumulation. Bilateral cumulation operates between two PTA partners and permits them to use products that originate in the other PTA partner as if they were their own when seeking to qualify for preferential treatment in that partner conferred by the PTA. All RoO regimes basically apply bilateral cumulation. Under diagonal cumulation, countries tied by the same set of preferential origin rules may use products that originate in any part of the common RoO zone as if they originated in the exporting country. This really means that where there is an agreement signed by more than two parties, materials originating in any party are cumulable. The only broad exception to this is the Pan-Euro Cumulation System (PECS) where the European Union (EU) has separate agreements with several countries, and permits aumulation among them conditional on their signing hilatoral agroements with each

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