

# Defragmenting Fragmented RTAs: A Benefit and Cost Approach

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## < Summary >

Regional trade agreements (RTAs) provide countries with many benefits. The multilateral trading system is also a beneficiary because successive and overlapping RTAs are the most viable and realistic path to global free trade by working as ‘building blocs’. Nonetheless, the spread of crisscrossing RTAs in the world has caused serious problems including increasing transaction costs. While pursuing a long-term goal of achieving harmonized preferential rules of origins (ROOs), countries need to actively adopt the diagonal or full accumulation system on a sectoral basis, starting from the sectors in which identical product-specific rules among participating countries have taken place. Adoption of co-equality of the change in tariff classification and regional value content rules can also provide flexibility for the benefit of trading firms. If WTO members are able to set up model ROOs, degree of each RTA’s deviation from this benchmark may be calculated and certain modalities for its reduction could be negotiated multilaterally.

In a longer term, other systemic rules on top of ROOs need to be converged or harmonized across RTAs on a regional or global basis. These efforts to defragment fragmented RTAs should continue even beyond the time when MFN tariff rates become zero on a global basis. Although all preferential origin regimes would then become irrelevant, still other varying rules and procedures need to be converged and harmonized across RTAs.

## I. Introduction

The spread of regional trade agreements (RTAs) in the last decade has been the most important trade policy development in the world trading system. Basically, the spread of RTAs has been accelerated by slow progress in the WTO Doha Round of trade talks. The economic integration process in Europe and North America respectively has also motivated spread of RTAs across the globe. Increasingly, nations have realized the need for stepping up integration to improve international competitiveness through exploitation of scale economies, to strengthen their bargaining power, and to raise their voice in global trade issues in the age of economic rivalry between the two giant blocs.

Different tariffs and rules of origin (ROOs) in multiple RTAs have resulted in a so-called ‘spaghetti bowl’ of trade phenomenon<sup>1</sup> that increases the burden for business. On the other

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<sup>1</sup>See generally Jagdish Bhagwati, ‘Regionalism and Multilateralism: An Overview’, in Jaime de Melo and Arvind Panagariya (eds), *New Dimensions in Regional Integration* (Cambridge University Press, 1993); Jagdish Bhagwati and Arvind Panagariya (eds), *The Economics of Preferential Trade Agreements* (Washington: AEI Press, 1996).

hand, in the absence of a Doha trade deal, comprehensive well-designed RTAs may be a means to achieve regional liberalization and structural reforms, which can constitute a building block to multilateral liberalization. The ‘noodle bowl’ phenomenon<sup>2</sup> caused by the recent proliferation of RTAs in Asia has also created such costs and benefits in the region and for the world economy.

Chapter 2 of this paper highlights benefits and costs of multiple RTAs from economic and trade policy points of view and identifies existing and potential problems of having multiple, uncoordinated RTAs. Chapter 3 analyzes policy implications for further encouraging trade and investment in the regional and multilateral frameworks and the chapter offers some policy suggestions to take in order to reduce costs and better tackle the fragmented RTAs.

## **II. Benefits and Costs of RTAs**

### **A. Benefit and Cost Approach of Multiple RTAs**

#### **1. Benefits**

It is true that a RTA provides countries with many benefits. It accords and enhances long term market access opportunities for products and services between RTA parties. In particular, to many export-oriented economies, such as ones in Asia, this access to foreign export markets is crucial. Although a RTA party country has to open its domestic market for the benefit of its RTA partners, this liberalization process provides access to cheaper imports from the RTA partner countries, which can be inputs for its exports. In addition, increased competition with more efficient imported products and services will improve the efficiency and competitiveness in the goods, services, and investment sectors of the importing country. Cheaper-priced imports will also benefit consumers.

A RTA can also enhance its member states’ position as an attractive destination for foreign direct investment. As the investment barriers between the RTA member economies are reduced, mutual investment flows as well as investment flows from the third countries may be facilitated. Also encouraging factor is that any products produced by such investment will get tariff preferences when destined for export to the other partner country market. A RTA may also offer various trade facilitation measures for industries to expand trade, as well as capacity building through economic and technical cooperation activities to improve and enhance their competitiveness.

RTAs, either individually or collectively, bring benefits to the multilateral system because, if we accept the “building block” hypothesis, successive and overlapping RTAs are the most viable and realistic path to global free trade. Preferential ROOs regimes are the mechanisms that make RTAs viable by allowing the participating countries to focus on eliminating intra-regional trade barriers without concerns about free-riding by outsiders. In this sense, preferential ROOs are a necessary element of any RTAs, benefiting the multilateral system, unless they are overly restrictive on trade.

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<sup>2</sup>See generally Masahiro Kawai, Ganeshan Wignaraja, ‘The Asian “Noodle Bowl”: Is It Serious for Business?’ (ADBI Working Paper No. 136, Asian Development Bank Institute, April 2009).

## 2. Costs: Trade Diversion and Spaghetti Bowls

The cost of RTAs, on the other hand, can be high for many RTA member states. In many cases, the cost is high because the member states must make industrial adjustments that include a transfer of labour from one sector to another in a traditionally inflexible economy. In addition, a RTA may have a trade diversion effect that can cause welfare losses for countries that are both members and non-members of the pact by diverting imports from low-cost non-member sources to higher-cost member suppliers. In such cases, the cost difference borne by importing members is commonly known as a trade diversion effect.<sup>3</sup>

RTAs also discriminate particularly against small, poor, developing economies that cannot join RTAs as they do not have much to offer and hence cannot attract the interest of others.<sup>4</sup> The costs of RTA negotiations could also be large for small, poor economies with limited negotiation capacity particularly when gains from RTAs are perceived to be unevenly distributed across various participating countries.<sup>5</sup>

This cost effect is fortified by preferential ROOs of RTAs. Most prominently, ROOs can be employed to favor intra-RTA industry linkages over those between a RTA and the rest of the world, and, as such, to indirectly protect RTA-based input producers vis-à-vis their extra-RTA rivals.<sup>6</sup> As such, ROOs are akin to a tariff on the intermediate product levied by the country importing the final good. Notably, the relevance of ROOs as gatekeepers of commerce can accentuate over time: ROOs remain in place even after preferential tariffs have been phased out. That is, initially governing access to a small preference, ROOs have little capacity for distortion; however, as the tariffs are phased out, the distortionary potential of ROOs grows.<sup>7</sup>

A proliferation of overlapping preferential trade agreements and the inconsistencies between various elements of these agreements, such as different schedules for phasing out tariffs, different rules of origin, conflicting standards, exclusions, and differences in rules dealing with trade remedy, and other regulations and policies, can increase the costs of doing business for their firms and trade diversion effects. Among these costs, various ROOs can create a spaghetti bowl cost. That is, if the various agreements carry widely distinct ROOs, they can impose undue transaction costs for traders, investors, and governments dealing in several RTA markets simultaneously. These costs are doubled by different customs formalities and administration across countries.

## 3. Costs: Hubs and Spokes

If an exporting company is situated at a hub location in a hub-and-spoke arrangement within a set of countries already linked by RTAs, it may be able to claim RTA duty exemption wherever its goods are exported within this network.<sup>8</sup> Besides this direct benefit, it is known

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<sup>3</sup>Jacob Viner, *The Customs Union Issues* (Carnegie Endowment for International Peace, 1950).

<sup>4</sup>Kawai and Wignaraja, above n 2, at 9.

<sup>5</sup>Ibid.

<sup>6</sup>See generally Krueger, A. O., 'Free Trade Agreements as Protectionist Devices: Rules of Origin', NBER Working Paper No. 4352 (1993).

<sup>7</sup>Antoni Estevadeodal, Jeremy Harris and Kati Suominen, 'Multilateralizing Preferential Rules of Origin around the World' in Richard Baldwin and Patrick Low, eds. *Multilateralizing Regionalism: Challenges for the Global Trading System* (Cambridge: Cambridge University Press, 2009), at 3.

<sup>8</sup>For empirical analysis of positive trade effect for FTA-hub countries, see for example Joseph D. Alba, Jung Hur, and Donghyun Park, 'Effects of Hub-and-Spoke Free Trade

that a regional RTA hub country and its companies receive many other benefits. Increased competitiveness by importing the most suitable raw materials from multiple spokes customs-free and expanding foreign direct investment inflow are some of the advantages.<sup>9</sup> Also the hub country has many advantages when negotiating new RTAs and it is in a better position to persuade its prospective partners to accept the conditions of its existing RTAs or other conditions favorable to itself.<sup>10</sup> In a specific region, a hub country could also display its political and economic leadership.<sup>11</sup> In spite of these benefits, different ROOs must be satisfied for each export destination, which creates spaghetti bowl costs.<sup>12</sup>

Companies located in a spoke, on the other hand, must not only bear the spaghetti bowl costs, but also a spoke cost. As the hub-and-spoke system progresses in the world, the spokes will be at an increasing disadvantage, as they will be unable to use inputs from other spokes when producing for the hub market. A study finds that the inability to cumulate production across 'spoke' economies in a hub-and-spoke arrangement within a set of countries already linked by RTAs depresses trade among the spokes by 10 to 70 percent.<sup>13</sup> Generally speaking, a hub-and-spoke structure is relatively inefficient compared to an integrated regional RTA because there is an increase in trade-related costs.<sup>14</sup> A hub constructs a complex trade network with multiple spokes, and as a result, traders' compliance costs increase.<sup>15</sup> Also businesses at the hub will pursue rent-seeking behavior: That is, firms in a hub try to maintain monopolistic positions in the hub-and-spoke structure, hindering a competitor from one spoke from branching out to another spoke.<sup>16</sup> There are also strong incentives for economies to try to become the hub in an attempt to dominate economies in their region, which can lead to discrimination and conflicts.<sup>17</sup> The problem is that spoke countries must bear the costs associated with these advantages in the form of a spoke cost.<sup>18</sup>

Most of Asian economies rely heavily on foreign source materials, and they export their final products all over the world. As a result, the spaghetti bowl and spoke costs will become more damaging and unbearable as the Asian region negotiates more RTAs.<sup>19</sup> Since the 1990s, spaghetti bowls have occurred in major regions around the world. In Asia, China's approach to ASEAN for a RTA in 2001 triggered a domino effect<sup>20</sup> and created so-called noodle bowl costs. In this situation, former beneficiaries of complexity tend to downsize and go offshore.<sup>21</sup>

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Agreements on Trade: Panel Data Analysis' (ADB Economics Working Paper Series No. 127, Asian Development Bank, October 2008).

<sup>9</sup>Inkyo Cheong, *East Asian Economic Integration: Recent Development of FTAs and Policy Implications* (Seoul: Korea Institute for International Economic Policy, 2002), at 86.

<sup>10</sup>*Ibid.*

<sup>11</sup>*Ibid.*

<sup>12</sup>Won-Mog Choi, 'Aggressive Regionalism in Korea-U.S. FTA: The Present and Future of Korea's FTA Policy', *Journal of International Economic Law* (forthcoming 2009), at \*\*\*.

<sup>13</sup>Augier, P., Gasiorek, M., and Lai Tong, C., 'The Impact of Rules of Origin on Trade Flows', *Economic Policy* (July 2005).

<sup>14</sup>For the general discussion about inefficiency of hub-and-spoke structure, see George Deltas, Klaus Desmet, and Giovanni Facchini, 'Hub-and-Spoke Free Trade Areas' (CEPR Discussion Paper No. 5960, London: Centre for Economic Policy Research, November 2006).

<sup>15</sup>Cheong, above n 9.

<sup>16</sup>Cheong, above n 9, at 87.

<sup>17</sup>*Ibid.*

<sup>18</sup>Choi, above n 12, at \*\*\*.

<sup>19</sup>*Ibid.*

<sup>20</sup>See Richard Baldwin, 'The domino theory of regionalism' in Baldwin, Haaparanta and Kiander (eds), *Expanding membership of the European Union* (Cambridge: Cambridge University Press, 1995).

<sup>21</sup>Choi, above n 18.

Many firms in spokes harmed by this complexity tend to push governments to untangle RTAs. Naturally, regional policies aim to simplify the ROOs and link RTAs to one another. How to multilateralize RTAs will soon become a major concern for Asia and the world.<sup>22</sup>

### **III. Accumulation, Harmonization, and Linkage among RTAs**

#### **A. ROOs Models**

According to a study,<sup>23</sup> ROOs following the large, developed country models (Panero and NAFTA) are among the most trade restrictive.<sup>24</sup> Agricultural products and textiles and apparel are marked by particularly high restrictiveness scores. Despite marked divergences across ROOs regimes around the world, there are clear ROOs families centered around the United States, EU, and Mexico, in particular, which suggests potential for some form of regional ROOs convergence. Moreover, there are some signs of a de facto cross-regional stylistic harmonization of ROOs, as US-style agreements are spreading into Asia via the recent trans-Pacific agreements.

#### **1. Paneuro ROOs Model**

European Commission's drive in the 1990s to harmonize EU's ROOs has brought highly uniform ROOs in the region. Starting early from 1970s, EC endeavored to harmonize ROOs with EFTA countries, which efforts were also made in the context of the European Agreements with Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Romania.<sup>25</sup> This harmonization work culminated in 1997 in the launch of the Paneuro system, which established identical ROOs protocols across the EU's existing RTAs, providing for accumulation among the participating countries. The Commission's regulation of 46 January 1999 reiterates the harmonized protocols, outlining the so-called Single List ROOs. These ROOs combine the change in tariff classification (CTC) rule with the regional value content (VC) and/or some technical requirements and they allow for an optional way of meeting ROOs for about 25 percent of the products. The most frequently used alternative ROOs are a stand-alone import content criterion.

This Single List became incorporated in the Euro-Mediterranean Association Agreements between the EU and the various southern Mediterranean countries, and the system of accumulation operates among the regional countries that have signed bilateral agreements with each other. That is, this list forms the basis of harmonized ROOs of the so-called Paneuro-Med Cumulation Zone covering the 27 EU members and 17 other territories.<sup>26</sup>

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<sup>22</sup>See Richard E. Baldwin, 'Multilateralizing Regionalism: Spaghetti Bowls as Building Blocs on the Path to Global Free Trade' (The World Economy, Blackwell Publishing, 29(11), 2006).

<sup>23</sup>Above n 7.

<sup>24</sup>Ibid. at 2 - 3.

<sup>25</sup>For the background and details, see Bart Driessen and Folkert Graafsma, 'EC's Wonderland: An Overview of the Pan-European Harmonized Origin Protocols', *Journal of World Trade* 33-4 (1999).

<sup>26</sup>It operates between the EU and the member states of the EFTA (Iceland, Liechtenstein, Norway and Switzerland) and Turkey, and countries which signed the Barcelona Declaration, namely Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Syria, Tunisia and the Palestinian Authority of the West Bank and Gaza Strip. In addition, Faroe Island joined the system. For details, see Driessen and Graafsma, above n 25.

Beyond this cumulation zone, this Paneuro ROOs model is incorporated in the EU's RTAs with South Africa, Mexico, and Chile and EU's Stabilization and Association Agreements with Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia and Serbia and Montenegro. Also, EU's Generalized System of Preferences and the Cotonou Agreement with the African, Caribbean and Pacific countries made in 2000 are adopting virtually identical ROOs to the Paneuro model rules.<sup>27</sup> EFTA's recently concluded RTAs with Mexico and Singapore also follow the model, albeit providing an alternative rule in selected sectors.<sup>28</sup>

## 2. NAFTA Model

Different from the Europe in which the harmonization policy of ROOs is underway, a de facto harmonization is slowly progressing in the Americas. This process is made possible because the NAFTA's ROOs are gradually referred to by subsequent RTAs made by US, Canada, and Mexico. Many products under the ROOs in these agreements are required of a change of chapter, heading, subheading or even item, depending on the product in question, combined by exceptions, VC, or technical requirements.

ROOs regimes of RTAs initiated by the US have progressively evolved toward a more liberal framework, as the NAFTA ROOs have been under a liberalization process. The initial set of revised NAFTA ROOs took effect on 1 January 2003.<sup>29</sup> This modified NAFTA ROOs were referred to by US-Chile, US-Colombia, US-Peru, Chile-Canada, Canada-Costa Rica, US-Central America-Dominican Republic, Mexico-Costa Rica, Mexico-Chile, Mexico-Bolivia, Mexico-Nicaragua, Mexico-Northern Triangle (El Salvador, Guatemala, and Honduras), and Mexico-Columbia-Venezuela (or G-3) RTAs.<sup>30</sup>

This NAFTA model is distinct from other ROOs employed by RTAs in the Latin American region, including the Latin American Integration Association (LAIA), the Andean Community (CAN) and Mercosur, as well as the agreements between them and with Chile, which uses as a general rule applicable across the board for all tariff items a CTC at the heading level or, alternatively, a 50 percent VC, plus a handful of specific rules applicable to specific products.<sup>31</sup> The model is also different from the Central American Common Market's (CACM), which uses mostly CTC at the chapter, heading, or subheading level, depending on the product in question. Moreover, US bilateral RTAs with non-American countries such as Jordan, Israel, Morocco, Bahrain, and Oman diverge from the NAFTA model in that VC rules are heavily used.<sup>32</sup>

Despite these differences and divergence in the Americas, it is likely that the NAFTA model with appropriate modifications might be able to play a converging role as the three North American countries strive to integrate economies in the hemisphere as well as across the world. For example, US FTAs with Singapore, Australia, and Korea incorporate similar ROOs to the US-Central America-Dominican Republic RTA. Peru-Thailand, Chile-Japan, the

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<sup>27</sup>See above n 7, at 6.

<sup>28</sup>Ibid.

<sup>29</sup>See 'Regulations Amending the NAFTA Rule of Origin Regulations', Canada Gazette, 1 January 2003 (available at <http://canadagazette.gc.ca/partII/2003/20030115/html/sor24-e.html>).

<sup>30</sup>See above n 7, at 6-7.

<sup>31</sup>Ibid.

<sup>32</sup>Ibid.

P4 (Brunei, Chile, New Zealand, and Singapore), and Mexico-Japan RTAs are based on ROOs models inherited from these Latin American countries' RTAs with the United States.<sup>33</sup>

In July 2004, the trade ministers of the NAFTA countries instructed the trilateral Working Group on Rules of Origin to extend the liberalization drive to all items with a zero most-favored-nation tariff for all of the NAFTA members. The August 2007 joint declaration of the Montebello Summit endorsed 'an analysis of the free trade agreements that each country has negotiated subsequent to the NAFTA, beginning with those in the western hemisphere, including opportunities for innovative provisions on rules of origin'.<sup>34</sup>

### 3. ASEAN Model

RTAs with the ASEAN, including ASEAN-China and ASEAN-Korea RTAs, and the ASEAN itself carry an across-the-board VC rule (40%) with relatively few exceptions. But AFTA is also moving towards more liberal alternatives, i.e. allowing traders to choose certain CTC rules instead of VC rules in many sectors. The Bangkok Agreement, the Australia-Singapore FTA, and South Pacific Regional Trade and Economic Cooperation in Asia-Pacific (SPARTECA) are also based on this approach.

However, this ASEAN model is not likely to play significant converging role in Asia in the future. As the North American countries enter into more RTAs with Asia-Pacific economies, the NAFTA-type ROOs may spread widely in Asia. This signal is shown by the case that the Australia-New Zealand Closer Economic Relations Trade Agreement (ANZCERTA) recently replaced their across-the-board VC rule with a set of rules that are quite similar to the rules established in the US-Australia FTA regime.<sup>35</sup> Australia and New Zealand have also adopted a similar variety of rules in their respective RTAs with Thailand.<sup>36</sup>

Simultaneously, European countries will endeavor to integrate with Asian economies in order to counterbalance US engagement policy to Asia. Further European overtures toward Asia will bring the Paneuro model to accompany the US model in the region.

### 4. African - Middle East Model

Relatively simple ROOs are in place in many African RTAs. The Common Market for Eastern and Southern Africa (COMESA), the Economic Community of West African States (ECOWAS), and the Gulf Cooperation Council (GCC) in the Middle East are based on an across-the-board VC rule that ranges mostly from 30 percent (ECOWAS) to 40 percent (COMESA).<sup>37</sup> Some of the agreements allow, or, indeed, require, ROOs to be calculated on the basis of import content.<sup>38</sup> Most of these regimes also specify alternative ROOs based on the CTC criterion; most often the alternative involves a change in heading or, in the case of ECOWAS that has a relatively low VC requirement of 30 percent, change in subheading.<sup>39</sup>

However, the Southern African Development Community (SADC) ROOs approximate the Paneuro model both in types of sectoral ROOs and in sectoral selectivity.<sup>40</sup> Moreover, there

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<sup>33</sup>Ibid.

<sup>34</sup>Ibid., at 27.

<sup>35</sup>Ibid., at 8.

<sup>36</sup>See *ibid.*

<sup>37</sup>Ibid.

<sup>38</sup>Ibid.

<sup>39</sup>See *ibid.*

<sup>40</sup>Ibid.

have been some initiatives to renegotiate COMESA ROOs; such attempts may well eventually lead to regimes of greater complexity.<sup>41</sup>

## **B. Accumulation and Harmonization Efforts of ROOs**

### **1. From Bilateral Accumulation to Extended Accumulation and Harmonization**

Compliance with ROOs can affect the sourcing and investment decisions of companies. If the optimal input mix for a firm involves the use of imported inputs which are proscribed by ROOs of a RTA in which the country participates, the ROOs will reduce the value of the available tariff preferences. The firm will have to shift from the lowest to a higher cost source of inputs in the domestic economy which will reduce the benefits of exporting under a lower tariff. If the cost difference exceeds the size of the tariff preference, then the firm will prefer to source from the outside of the RTA region and to pay the MFN tariff. The ability to cumulate inputs from a partner under bilateral, diagonal or full cumulation<sup>42</sup> will tend, in increasing order, to open the possibilities for identifying low cost sources of inputs which do not compromise the qualifying nature of the final product. Nevertheless, if the lowest cost supplier is not a member of the area of cumulation then the benefits of the preferential scheme will always be less than indicated by the size of the preferential tariff.

Therefore, diagonal accumulation would allow more fragmentation of production processes among the group members than the bilateral cumulation does, and could stimulate increased economic linkages and trade within the region. Under full cumulation it may be easier for more developed higher labour cost countries to outsource labour intensive low-tech production stages to less developed lower wage partners whilst maintaining the preferential status of the good produced in low-cost locations.<sup>43</sup> Hence, these extended types of cumulation provides for deeper integration amongst participating countries.

Because most LDCs are small countries where the possibilities for local sourcing are limited or non-existent, diagonal or full cumulation provisions would reduce the constraining effect of the restrictive ROOs.

The Pan-Euro-Med Accumulation Area allows for diagonal and full accumulation among many economies in the European and Mediterranean region. This regime enables producers to use components originating in any of the participating countries without losing the preferential status of the final product. It thus goes a long way in expanding the geographical and product coverage of the system and is a major factor for European harmonization.

The EU's agreements with some extra-regional partners allow in some cases for extended cumulation. For example, the EU-South Africa RTA allows both parties to cumulate diagonally with the ACP states. In addition, it incorporates the 'single territory' concept,

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<sup>41</sup>Ibid.

<sup>42</sup>Most RTAs adopt the bilateral cumulation, which allows goods from the other participating country to be processed in a beneficiary country as if the goods originated in that beneficiary country on the condition that the processing goes beyond a minimal level. Under the diagonal cumulation system, goods originating in one or more countries within the group may be further processed in another country within the group, and these goods are seen to originate in the country where they are processed. Full accumulation enables the *work or production* carried out in one country to be carried forward to another country and be counted as if it were carried out in the country that produces the final product.

<sup>43</sup>Paul Brenton, 'Notes on Rules of Origin with Implications for Regional Integration in South East Asia,' Poverty Reduction and Economic Management, International Trade Department, The World Bank, on file with the author, p. 5.

whereby South Africa can calculate working or processing carried out within the Southern Africa Customs Union (SACU) area as if these had been performed in South Africa (but not in the EU).<sup>44</sup> The EU's agreements with Mexico and Chile, on the other hand, do not contain provisions for diagonal cumulation. Despite this lack of extended cumulation provision, the two agreements have still adopted the Paneuro ROOs because the parties desired to enable rapid accession to the Paneuro system of accumulation in a future date.<sup>45</sup>

In the SPARTECA agreement, Australia and New Zealand allow members of the South Pacific Forum islands to cumulate among themselves. The Forum islands may not, however, cumulate inputs from New Zealand to export to Australia, or vice versa, as trade between Australia and New Zealand is governed by the ANZCERTA agreement which does not provide for cumulation of Forum country-originating inputs.<sup>46</sup>

In Latin America, the recent agreements between Mercosur and the Andean Community have provisions for cumulation that includes all nine countries (including Bolivia). As the product-level rules were negotiated bilaterally, those rules are not uniform across bilateral relationship.<sup>47</sup> This means that diagonal cumulation is not fully workable as discussed in the next section. While there have been some initial attempts to mitigate this problem, no clear solution has yet been seen.<sup>48</sup>

< Table 1: Rules of Origin in Existing Free Trade and Preferential Trade Agreements of EU in comparison with Those of Major Countries ><sup>49</sup>

	Change of Tariff Classification	Value Added (Domestic or Import Content)	Specific Manufacturing Process	Accumulation
A. Agreements involving the EU				
EU – PanEuro	Yes (4, 2)	Yes-Import (50-30%)	Yes	Bilateral Diagonal
EU – GSP	Yes (4, 2)	Yes-Import (50-30%)	Yes	Bilateral Diagonal
EU – Contonou	Yes (4, 2)	Yes-Import (50-30%)	Yes	Full
EU-Chile	Yes (4, 2)	Yes-Import (50-30%)	Yes	Bilateral
EU-Mexico	Yes (4, 2)	Yes-Import (50-30%)	Yes	Bilateral
EU-South Africa	Yes (4, 2)	Yes-Import (50-30%)	Yes	Bilateral Diagonal (ACP) Full (SACU)
B. Others				
NAFTA	Yes (6, 4, 2)	Yes-Domestic (60-50%)	Yes	Bilateral
AFTA		Yes-Import (60%)		Full
ANZERTA		Yes-Domestic(50%)		Full
Singapore-Japan	Yes (4)	Yes-Domestic (60%)	Yes	Bilateral
Singapore-US	Yes (6, 4, 1)	Yes-Domestic (55-35%)	Yes	Bilateral
K-US	Yes (6, 4, 1)	Yes-Domestic(generally 35%) / Import(generally 45%)	Yes	Bilateral

## 2. Conditions for Extended Accumulation

<sup>44</sup>Above n 7, at 20.

<sup>45</sup>Ibid.

<sup>46</sup>Ibid.

<sup>47</sup>Ibid.

<sup>48</sup>Ibid.

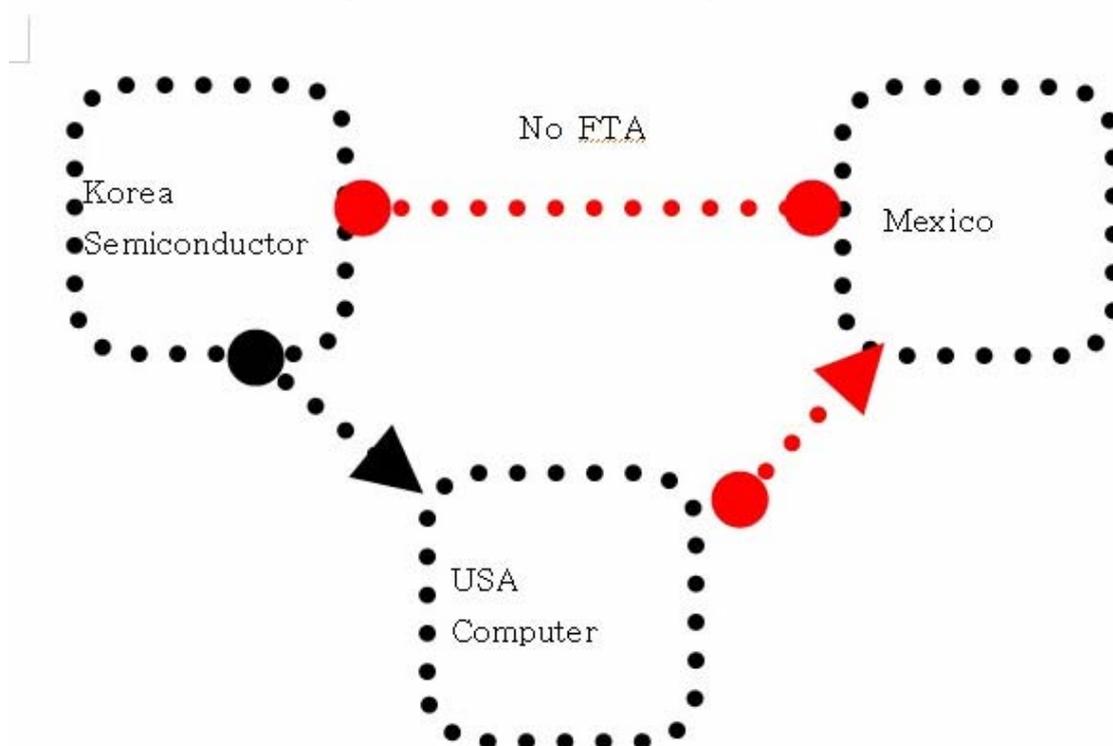
<sup>49</sup>Summarized by the author by examining individual agreements. See Choi, above n 12, at \*\*\*.

Diagonal cumulation is only available when the participating countries have RTAs in force among each of them. A hypothetical of computer trade among Korea, US and Mexico may elucidate this precondition for diagonal cumulation.

Although the US wants to export computers using Korean semiconductors to Mexico under the US-Mexico-Korea diagonal cumulation scheme, Mexico would not want to accord the preferential tariff benefit to such computers, if there is no RTA relationship between Mexico and Korea (see Diagram 2). Indeed, Mexico would not tolerate the situation that all the Korean semiconductors would be exported to the Mexican market duty-free as incorporated into US computers circumventing the absence of a Mexico-Korea FTA. This situation, if realized, goes beyond the original spirit of diagonal cumulation, and it is inconsistent with MFN principle of the WTO because Mexico accords favourable treatment only to Korean semiconductors without having a RTA with Korea.

This means that diagonal cumulation can only be workable with existence of RTA relationships between each of all the participating countries.

< Diagram 1: Condition 1 for Diagonal Cumulation >



Moreover, in order for diagonal cumulation to fully function, identical ROOs are required to be adopted in all participating RTAs. Otherwise, a case would be accorded with tariff preference between some participating members whereas the same case could result no preference between other members. This result would generate crisis in coherency and fairness of origin determinations.

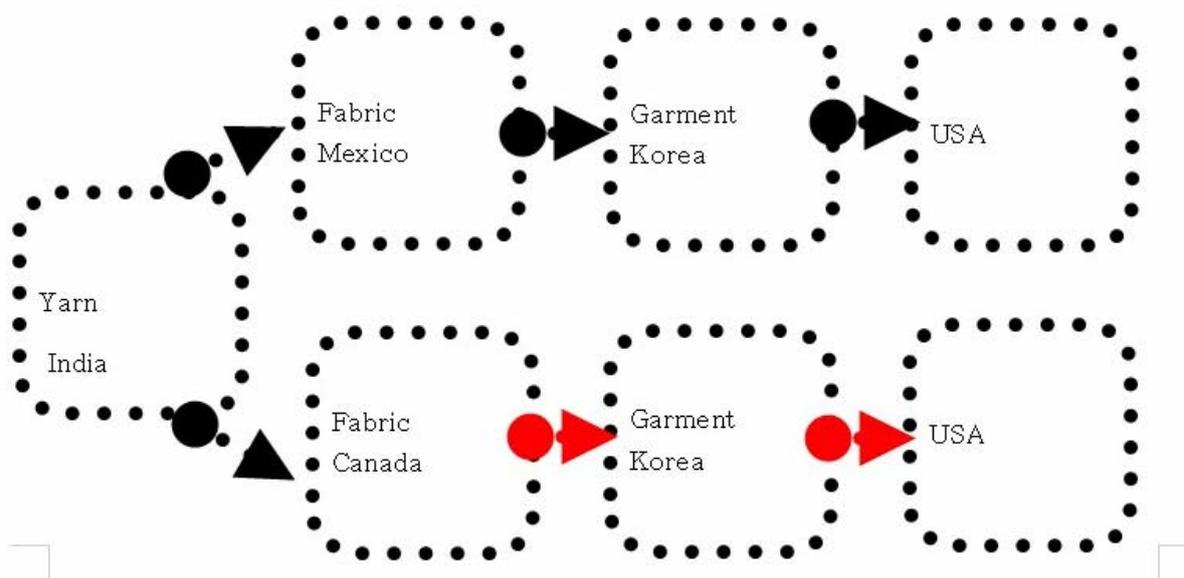
Taking a hypothetical example, suppose that a diagonal cumulation arrangement was made in the Korea-US FTA, and Korea, Mexico, Canada and US were designated as participating economies. Subsequently, Korea was able to make RTAs with Mexico and Canada, which completes the first condition that all the participating countries must have RTA relationships among each other. However, suppose that ROOs provisions among

Korea's FTAs with the US, Mexico and Canada are not identical: the fabric forward rule for textile and apparel products was adopted in the Korea-US and Korea-Mexico FTAs, whereas the yarn forward rule in the Korea-Canada FTA. In this setting, suppose that yarn imported from India is fabricated in Mexico to be exported to Korea where a garment is made. This garment is subsequently exported to the US. According to the fabric forward rule under the Korea-Mexico FTA, Mexican fabrics would be recognized as goods of Mexican origin. This Mexican fabric exported to Korea could be recognized as Korean fabric by the diagonal cumulation rule, and the final garment export to the US may benefit tariff preference by the fabric forward rule under the Korea-US FTA.

On the other hand, the same yarn that is originating in India, fabricated in Canada, garmented in Korea, and exported to the US would be subject to an opposite result. That is, with the application of the yarn forward rule in the Korea-Canada FTA, the fabric exported from Canada to Korea would be determined as non-originating goods (originating in India), and the final garment product exported to the US would not be accorded with tariff preference (see Diagram 3). In this situation, Korean textile companies would like to import fabrics only from Mexico. This result would be to the structural detriment of Canadian fabricating industries.

This problem may arise if any difference exists among ROOs of Korea-Mexico, Korea-US, Korea-Canada, and NAFTA. Industries of any participating country whose benefit is adversely affected may raise this problem. These industries would strongly oppose to the formation of this type of cumulation system in the first place. It means that complete harmonization of ROOs among participating RTAs provides for an ideal environment for diagonal cumulation.

< Diagram 2: Condition 2 for Diagonal Cumulation >



This is why countries in the Pan-Euro-Med Cumulation Area have already concluded a protocol to harmonize varying ROOs. Article 3 of the protocol provides that the contracting parties should exchange, through EC Commission, details of RTAs on their corresponding ROOs, which applied with the other countries within the cumulation group.<sup>50</sup> The

<sup>50</sup>Paragraph 5 of Article 3, EEA Agreement Protocol 4 on Rules of Origin, Protocol

Commission publishes notices indicating the fulfillment of the necessary requirements to apply cumulation in the Official Journal of the European Union and in the other contracting parties. From the date indicated in this notice, diagonal cumulation applies. In sum, the EU has encouraged its members to adopt identical ROOs to the model rules in the protocol, and made the starting date of diagonal cumulation coincide with the date of entry into force of the harmonized ROOs.<sup>51</sup>

### C. Strategies for Convergence or Harmonization of ROOs

So far, various solutions to the spaghetti bowl costs have been proposed. Following formal theoretical modeling of Bhagwati's insight, the early theoretical economics literature concluded with the suggestion that MFN liberalization is a panacea because once external tariffs drop to zero, tariff preferences and the spaghetti bowl created by them will automatically disappear.<sup>52</sup> A more comprehensive approach is offered by Baldwin and his collaborators who proposed a 'WTO Action Plan on Regionalism,' including deepening the transparency mechanism for RTAs, WTO advisory services on RTAs, and several measures for taming the ROOs tangle.<sup>53</sup>

In addition to all of these insights, it is important that following the example of Pan-Euro-Med Accumulation Area, the extended cumulation system must be part of ROOs in other regions, which will allow more inputs from preferential trading partners to be used in the production of a final good without undermining the origin of the product. In particular, the obvious trend that an increasing number of bilateral agreements are centered on the ASEAN countries makes consideration of cumulation mechanisms an important issue in Asia.

Although there is a case in which Japan's agreement with Malaysia and Thailand include rules that specifically allow for cumulation of inputs from ASEAN countries, these rules are concentrated in just a few agricultural products and in textiles and apparel.<sup>54</sup>

Given that the EU has sought to overcome the difficulties associated with the hub and spoke system of RTAs by allowing for widespread diagonal cumulation amongst all of the EFTA, Central and Eastern European countries and economies in the Balkans, Asian countries must make efforts to adopt the extended accumulation system when negotiating future RTAs and/or amending existing ones. Common rules of origin in Asia would also facilitate the spread of full cumulation to new agreements, which again would be an important factor allowing for the development of regional production networks. Full cumulation in Asia will provide for deeper integration and allow for more advanced countries to outsource labour-intensive production stages to low-wage partners.

It is important for export-oriented economies in Asia to include this approach in RTAs because its economy heavily depends on outsourcing materials and intermediate goods. The

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replaced by Decision No 38/2003 (OJ No L 137, 5.6.2003, p. 46 and EEA Supplement No 29, p. 29), e.i.f. 15.3.2003, and subsequently replaced by Decision No 136/2005 (OJ No L 321, 8.12.2005, p. 1 and EEA Supplement No 63, 8.12.2005, p. 1), e.i.f. 22.10.2005.

<sup>51</sup>See Date of application of the protocols, Official Journal of the EU, C87/9 (Nov. 4, 2006).

<sup>52</sup>Panagariya, A., 'Preferential Trade Liberalization: The Traditional Theory and New Developments', *Journal of Economic Literature* 38(2) (2000), at 328.

<sup>53</sup>Baldwin, R., 'Multilateralizing Regionalism: Spaghetti Bowls as Building Blocks on the Path to Global Free Trade', *The World Economy* 29(11) (2006), at 1451–1518; Baldwin, R., and P. Thornton, 'Multilateralising Regionalism: Ideas for a WTO Action Plan on Regionalism', London: Centre for Economic Policy Research (2008).

<sup>54</sup>See product specific rules in Annex 2 of Japan-Malaysia EPA.

burden of production costs incurred by each restrictive rules of origin can be somewhat reduced by allowing less restrictive accumulation rules, such as diagonal or full accumulation.

In order to introduce diagonal cumulation on a regional scale, harmonization of ROOs needs to progress in the region. Gradually replacing complicated CTC and VC criteria, certain common criteria based on the CTC rule may be drafted among more and more participants. Regional cooperation institutions such as APEC and ASEAN+5 may play a coordinating role of exchanging details of members' RTAs on their corresponding ROOs. Certain guidelines to minimize the systemic harm that can be caused by the current uncoordinated approach may be issued by those institutions.

The proliferation of divergent RTAs and their ROOs need to be subject to a multilateral process of regulation at some point of time. Although there is inherent difference of aim and nature between non-preferential and preferential ROOs, the harmonized non-preferential rules may be used as a blueprint for preferential rules, given that the non-preferential rules generally seem to be a compromise position between the US and EU standard preferential positions.<sup>55</sup> The harmonization work of non-preferential ROOs that has been carried out under the auspices of WTO and World Customs Organization needs to be referred to. The work program was initially scheduled for completion by July 1998 and is at the final stage of completion after several time extensions of deadline. The program was propelled by growing concerns about divergent national non-preferential ROOs and their adverse effects on trade flows, and it was recently able to produce a consolidated text of non-preferential ROOs<sup>56</sup> based mostly on several CTC criteria and a 35% value added rule.

By the same token, this process of multilateralizing preferential ROOs needs to proceed, or be monitored, within the WTO framework. The current text of WTO Agreement on Rules of Origin includes substantive disciplines about non-preferential ROOs, whereas disciplines on preferential ROOs are merely procedural. As a result, any preferential ROOs are WTO-consistent as long as they are clearly specified and published, based on a positive standard, applied in a timely and non-retroactive manner, subject to a review procedure, and applied with confidential treatment of business secrets (see Table 4).

< Table 2: WTO Disciplines on ROOs ><sup>57</sup>

	Non-Preferential ROOs		Preferential ROOs
	Before Harmonization	After Harmonization	
Clearly specify	O	X	O
Not use as instruments to pursue trade objectives	O	X	X
Not create restrictive, distorting, or disruptive effects on trade	O	X	X
Not discriminate	O	O	X
Consistent administration	O	O	X

<sup>55</sup>Above n 7, at 41.

<sup>56</sup>G/RO/W/111/Rev.3, WTO Committee on Rules of Origin, 2 December 2008.

<sup>57</sup>Compare Part II and Annex II of WTO Agreement on Rules of Origin.

Base on a positive standard	O	X	O
Publish	O	O	O
No delay in determination	O	O	O
No retroactive application of changes	O	O	O
Review procedure	O	O	O
Confidential treatment of information	O	O	O
Apply equally for all purposes	X	O	X
Apply the last substantial transformation criteria	X	O	X

※ O = existent, X = non-existent

WTO members may agree to impose certain substantive disciplines upon preferential ROOs so as to tame their trade restrictiveness and arbitrary application practices. These agreed disciplines could be added to Annex II of the Agreement on Rules of Origin through its significant amendment.

Theoretically, it is desirable that WTO members may produce harmonized preferential ROOs and make decisions to adopt these rules on a global basis. However, complete harmonization would be technically difficult given the diversity of ROOs around the world. Moreover, it might be politically unfeasible due to resistance by sectors benefiting from the *status quo*. As a realistic scenario, some mandate for convergence, instead of harmonization, of preferential ROOs may be given to a WTO work programme, and this programme could pursue in-depth comparisons of preferential ROOs and produce ‘best practices’ to use as a benchmark. Or, as soon as the harmonized non-preferential ROOs are adopted by WTO members, these rules could be taken as a benchmark also for preferential rules.

In developing this benchmark, co-equality arrangements between the CTC and VC rules need to be made as far as it is possible. According to a series of surveys asking for Asian firms’ opinion about their preferred ROOs, 52% of 143 respondents want to have the option to choose between a VC rule and a CTC rule with regard to the origin determination of a specific product.<sup>58</sup> Note in this regard that AFTA recently allowed a comprehensive listing of co-equal product specific rules.<sup>59</sup>

It is eventually necessary to develop a world map of ROOs, graded by different levels of restrictiveness.<sup>60</sup> In this process, the programme may produce certain modalities by which ROOs convergence could be negotiated multilaterally. If we are able to calculate net degree of

<sup>58</sup>Kawai and Wignaraja, above n 2, at 21–22. Another 29% prefers the CTC rule, while 19% the VC rule.

<sup>59</sup>See above III A 3 of this paper.

<sup>60</sup>In this regard, some research has been made with some successful results. See Estevadeordal and Suominen, above n 10; Plummer, M., ‘Best Practices in Regional Trade Agreements: An Application to Asia’, *World Economy* 30(12): 1771–1796 (2007); Paul Gretton and Jyothi Gali, ‘The Restrictiveness of Rules of Origin in Preferential Trade Agreements’, Paper presented at the 34<sup>th</sup> Conference of Economists 2005 (University of Melbourne 26 to 28 September 2005).

deviation of each RTA's ROOs from certain agreed benchmark criteria, WTO members could negotiate a total and/or average rate of its reduction<sup>61</sup> and implementing periods of the reduction – just like a multilateral negotiation process for tariff reduction. Applying this reduction formula, member countries of each RTA could be allowed to achieve their total and/or average reduction rate by reducing the amount of deviation in some selected product sectors that are less sensitive to their economies. Moreover, upon agreement, ROOs of RTAs among developing countries may be given a lesser reduction rate and/or a longer implementing period.

Alternatively, should quantifying deviation be unfeasible, countries could simply negotiate on the minimum number of sectors where less restrictive rules must be introduced by amending current rules. In implementing such amendment in selected sectors, a standstill requirement needs to be imposed to other sectors: That is, countries must not be allowed to amend ROOs so as to make origin rules of any sector more trade restrictive than before.

For prospective RTAs to come, WTO members could agree on a certain range of deviation within which negotiating countries of a RTA are allowed to make their ROOs deviate from the benchmark. Note that this mechanism does not aim at harmonizing rules *per se*, but, rather, at reducing the restrictiveness of the ROOs relative to a fixed benchmark, and thereby, achieving a greater openness of each bloc to the rest of the world.<sup>62</sup>

In the meantime, extended cumulation should be adopted among RTAs that have already transited to harmonized ROOs. Even before full harmonization takes place for entire product sectors, participating countries could agree to apply diagonal cumulation to limited product sectors where identical product-specific rules have already applied among themselves. Japan's FTAs with Malaysia and Thailand are exemplary of this sectoral approach.<sup>63</sup> The participating countries should make sure that each of them shares RTA relationships with each other so that cumulation between separate, free-standing RTAs, where a particular RTA scheme provides benefits to certain non-Parties to that RTA but not to others, may not violate the MFN principle.

Even with cumulation, if VC thresholds are set at too high levels, it may be difficult to comply with them particularly in low-wage-low-income countries. Therefore, it is important to preserve flexibility created by cumulation by requiring reasonable levels of VC and allowing alternative ways of using CTC rules. The most usual level of VC worldwide is 40-50 percent, whether defined as maximum import content or as VC. Therefore, a maximum VC level of 50 percent, for example, could be generally imposed across-the-board of all sectors and RTAs. From this VC capping, certain small percentage of sectors could be excepted so that countries may impose a higher VC threshold for the protection of those sensitive sectors. For a special and differentiated treatment for developing countries, this percentage of exception may be larger for RTAs among developing countries. Or, in determining the origin of exports from developing countries, averaging of VC over shipments in a given time period may be allowed rather than demanding that every shipment meet a rigid VC rule.<sup>64</sup>

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<sup>61</sup>A similar idea was raised by Estevadeodal, Harris and Suominen in the name of 'Cap-and-Con Strategy' (proposing a system of capping a range of deviation of ROOs from certain benchmarks at the multilateral level). See above n 7, at 48-50.

<sup>62</sup>Ibid, at 45.

<sup>63</sup>See above n 54.

<sup>64</sup>See William E. James, 'Rules of Origin in Emerging Asia-Pacific Preferential Trade Agreements: Will PTAs Promote Trade and Development?' (paper prepared for UNDP/UNESCAP ARTNet Consultative Meeting on Trade Facilitation and Regional Integration, Bangkok, 17-18 August 2006).

#### **D. Harmonization of Other Systemic Rules of RTAs**

This process of linking multiple RTAs using accumulation and harmonization of ROOs may be called a “low-level linkage” of RTAs because it interlinks only ROOs factor among many RTA components.

The linkage, if successful, will enable countries to tackle other linkage issues over the longer term. More complex customs rules will be more difficult to administer, and administering various institutional or systemic provisions of RTAs will require customs authorities to spend more time and budget in identifying correct rules and their correct application. Such customs costs are also relevant for traders. Complications for customs can result in delays in shipments and increase time for marketing goods. Inventory costs are increasing when the delayed shipments are intermediates. When overlapping regimes are becoming more complex, it is more likely that the rules for a given product or service will vary across regimes, requiring firms to adjust their production and marketing strategies to accommodate different rules. If the various agreements carry widely distinct rules of trade, they can impose undue transaction costs for traders and investors dealing in several RTA markets simultaneously. Firms dealing on different RTA fronts may need to alter their production and marketing patterns to meet varying requirements of each of the different RTAs. These problems can increase uncertainty for traders and investors, and they will likely hit traders in developing countries disproportionately because the customs services of developing countries are more likely to be unprepared to handle the complicated administrative tasks associated with divergent rules of trade.

Reducing these costs and uncertainties should be one goal of the multilateralization or convergence process. Therefore, the issue of higher-level linkage centers on how to converge or harmonize such institutional or systematic provisions of RTAs about customs administration and trade facilitation, transparency, institutional provisions and dispute settlement, exceptions, trade remedies, technical barriers to trade, sanitary and phytosanitary measures, intellectual property rights, competition-related matters, electronic commerce, investment, and labor and the environment.<sup>65</sup>

Ultimately, this endeavor may lead to a highest level linkage of RTAs with the harmonization of market access provisions among RTAs and solve the problems associated with government procurement, financial services, cross-border trade in services, textiles, and apparel, agriculture, and industrial goods (see Diagram 5).<sup>66</sup>

As more and more RTAs are harmonized and interlinked by higher-level linkages and accumulation in each region, a pan-region RTA idea could eventually materialize. In Asia, a trilateral RTA comprising China, Korea and Japan may be formed and by linking other existing bilateral RTAs to this, the linkage and harmonization task of RTAs in Asia may be gradually pursued. Eventual accession of other Asian countries to the China-Korea-Japan FTA would complete the pan-Asia economic integration project. In this course, a step-by-step approach from low to high level linkages and harmonization can make the idealistic agenda more feasible. This ambitious goal will require states to use forward-looking approaches and have courage when negotiating future RTAs or amending existing ones.<sup>67</sup>

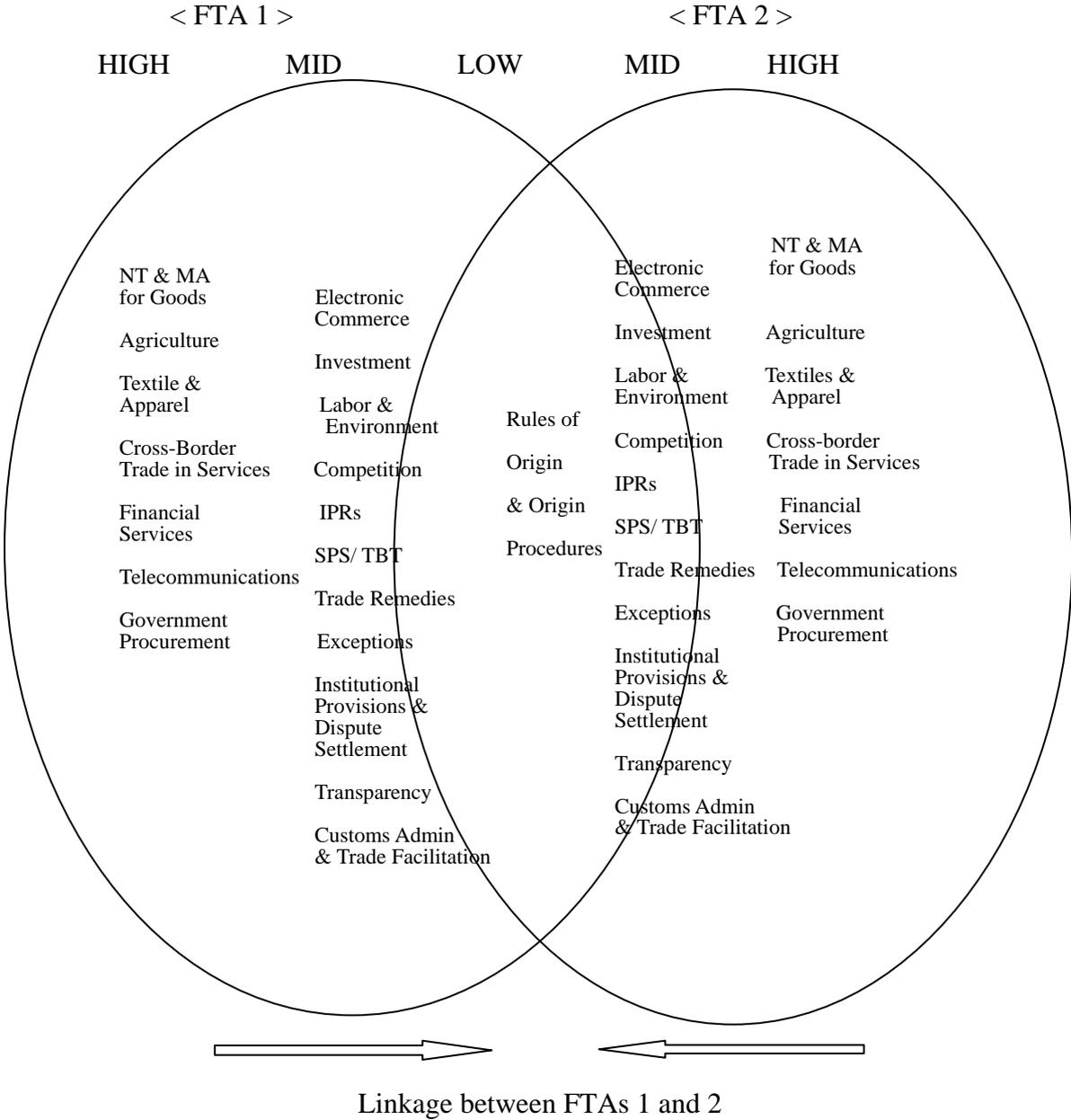
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<sup>65</sup>Choi, above n 12, at \*\*\*.

<sup>66</sup>Ibid.

<sup>67</sup>Ibid.

< Diagram 3: Level of Linkage among FTAs and their Sectors ><sup>68</sup>



**IV. Conclusion**

The spread of RTAs in the world has sparked systemic concerns about crisscrossing RTAs. With a growing number of fragmented RTAs, coping with increasing transaction costs is becoming an unavoidable task for the international trading system.

Divergent preferential ROOs are one of the main sources of the costs and they are becoming a cost-ineffective and non-transparent means of protection. Simple, consistent and

<sup>68</sup>Choi, above n 12, at \*\*\*.

predictable ROOs are more likely to foster the growth of cross-country production networks in the world trading system.

The Pan-European Cumulation System allows cumulation of inputs across spokes and this practice should be encouraged in other hub-and-spoke systems in order to develop efficient networks and avoid trade diversion in intermediate inputs. Therefore, while pursuing a long-term goal of achieving harmonized ROOs, countries need to actively adopt the extended cumulation system on a sectoral basis, starting from the sectors in which identical product-specific rules among participating countries have been taken.

Adoption of co-equality of CTC and VC rules can also provide flexibility for the benefit of trading firms. If WTO members are able to set up benchmark ROOs, degree of RTAs' deviation from this benchmark may be calculated and certain modalities of its reduction could be negotiated multilaterally. This benchmark could also be used to check against any deviation that might be placed in ROOs of future RTAs.

In a longer term, other systemic rules in addition to ROOs need to be converged or harmonized across RTAs on a regional or global basis. As this cross-RTA linkage process progresses, a pan-region or pan-continental RTA might take shape in each major continent. These efforts for harmonization and linkage should continue even beyond the time when the conclusion of a round of tariff reductions that results in the binding of MFN tariffs at zero or very low levels for nearly all products. Although all preferential origin regimes would become irrelevant with zero global tariffs (as there would be no meaningful tariff preferences to qualify for), still varying rules and procedure including customs rules, trade remedy provisions and SPS and TBT standards need to be converged and harmonized across RTAs.

To many bystanders, tasks of renegotiating RTAs and reconciling differences across regimes either at the regional or global levels might seem like opening a Pandora's Box of endless troubles. Nonetheless, this effort to defragment fragmented RTAs is worth being made in order to bring the diverging regimes up to date with the commercial and technological realities of the contemporary and upcoming world. Our ultimate path to global free trade will be much determined by the consented will and way for the solution of these issues, both regionally and globally. //