Impact of Reducing Non-tariff Trade Cost in RTAs: Case of the Asia-Pacific Trade Agreement

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I. Introduction

The General Agreement on Tariffs and Trade (GATT), formed in 1947, looked at the free trade agreements (FTAs) and customs unions (CUs) as an exception to the basic principle of Most Favored Nation (MFN).[1] While starting with a few, the new wave of regional trade agreements (RTAs) have altered the international trade rules. The Asia and the Pacific is not untouched with this phenomenon and the number of RTAs in the region has seen an increase since early 1990s. The Asia-Pacific economies have turned now into major contributors to a global build-up of RTAs. Out of 262 RTAs in implementation worldwide, the Asia-Pacific economies are party to 156, with an average of 7.1 RTAs for each Asia-Pacific economy and thus creating a complex web of 'noodle bowl'.[2]

The Asia-Pacific Trade Agreement (APTA) is one of the oldest preferential trade agreements (PTAs) in the region (signed in 1975 as the Bangkok Agreement) and is open for membership to all the developing countries of the Asia and the Pacific. The current members are Bangladesh, China, India, Lao PDR, the Republic of Korea and Sri Lanka. Mongolia's accession was finalized in October 2013 and pending its national ratification. This is at present, the only agreement in force which has three major economies of Asia: i.e., China, India and the Republic of Korea. The APTA aims to promote intra-regional trade through reduction in tariff and non-tariff measures (NTMs); however, so far it has

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[1] Under Article I of GATT 1994, WTO members are not supposed to discriminate one member against another in terms of their trade policies including import duties. However, RTAs allow such discretion under Article XXIV of GATT 1994 subject to certain conditions. The plethora of RTAs now are thus challenging the principles of Article I since all the members of WTO are also parties to multiple RTAs.

[2] APTIAD Briefing Note 7 (February 2016), ESCAP. Available at http://www.unescap.org/sites/default/files/APTIAD%20brief.pdf

only focused on reduction of tariffs. Four rounds of trade negotiations have taken place so far but the entire focus has been on reduction of tariffs only. No serious attempt has been made to address the issue of non-tariff measures during these negotiations. This paper therefore examines the importance of reducing and removing non-tariff measures and the associated cost of compliance which can enhance the intra-APTA trade and investment flows so as to enhance opportunities for regional and global supply chains among APTA Participating States.

Not enough literature exists on evaluating the effects of removal of NTMs for APTA. Most of the studies on APTA have focused on expansion of membership and the potential of trade that exists between the APTA members due to tariff concessions. Therefore, this paper examines a new dimension of APTA by evaluating the impact of NTMs on trade. The paper first examines the trade, tariff and non-tariff profiles of APTA members to understand their relative importance and then looks at the overall bilateral trade cost by using the ESCAP–World Bank database. By using the gravity model, this study evaluates the impact of elimination of non-tariff related trade cost on intra-APTA exports keeping in view the future negotiating prospects of FTAs. In conclusion part of the paper, the study looks at measures which can facilitate reduction or elimination of two important non-tariff measures[3] namely; the sanitary and phytosanitary (SPS) measures and the technical barriers to trade (TBT). It is recognised that both tariff and non-tariff measures can affect trade, however, with the reduced levels of existing MFN tariffs, NTMs have become a major determinant in restricting trade. NTMs often create challenges for exporters and importers in terms of their compliance and thus have a price-enhancing effect on trading goods.

The paper proceeds as follows. Section II sheds some light on the existing literature on how the NTMs affect trade. Section III reviews the intra-APTA tariff and trade. Section IV uses the gravity model to understand the correlation between exports and non-tariff related trade costs. In sections V and VI, the paper presents the empirical results as well as calculate the potential trade which can happen if both the tariffs and non-tariff measures are removed. Section VII gives the major findings of the paper by way of conclusion.

II. Literature Review

[3] As per WTO glossary of trade terms, non-tariff barriers/measures refer to all barriers/measures to trade that are not tariff-related such as quotas, import licensing systems, technical and sanitary regulations (TBT and SPS), prohibitions, etc. Some of these instruments, in particular technical regulations, minimum standards and certification systems regarding health and consumer safety do not ipso facto constitute barriers to trade, as they are generally employed to meet legitimate policy goals. However, there is a perception that, in some circumstances these types of policy instruments are being misused to protect the domestic industries. On the other hand, in general the measures which are WTO compliant are treated as non-tariff measures and those which violate the WTO principles are termed as 'barriers'.

Nobel laureate Jan Tinbergen (1962) noted that FTAs reduce trade costs due to reduction in tariff and non-tariff barriers; thus increasing the competition and thereby improving the efficiency in the markets and in effect increasing consumer welfare by bringing down the prices of imported goods, as well as by diversifying consumers' choice. Krueger (1999) observed that FTAs act as portents for the open multilateral trading system as they create trade-diverting environment as well as interest groups which oppose further multilateral liberalization. Bayoumi and Eichengreen (1997) did study on ex post effect of FTAs and customs union on bilateral merchandise trade flows. Baier & Bergstrand (2006) found that, on average, an FTA approximately doubles the bilateral trade after 10 years.

With the global reductions in tariff have been implemented over the years, the recent studies have focused on impact of NTMs on trade. UNCTAD (2010) points that the traditional way of trade policies measures which control market access in the forms of tariffs and quotas could still be improved by further liberalization; however, they no longer have a significant impact on providing greater market access. At present the NTMs are major determinants, which if reduced, could provide greater and effective market access. Deardorff (1998) observed that governments realized that tariff will not work effectively in restricting imports, and thus there is more reliant on the use of NTMs to restrict imports. Bureau & Marette (1998) also noted that since the traditional protective measures become less important, NTMs in the form of regulatory measures, such as quality standards and technical regulations in the form of sanitary and phytosanitary (SPS) measures and technical barriers to trade (TBT), which may be WTO-compliant, have become the main impediments to trade. Kee (2004) attempted to estimate the percentage increase in specific product process across countries due to NTMs.

The effect of TBT on trade impact was studied for twelve western European nations from 1980-1995 and the study helped in estimating impact of 1% increase in the number of shared standards on bilateral trade flows (Moenius, 2004). Hoekman and Nicita (2008) did a study to analyze the impacts of trade policies on developing countries. The data set covers 104 importers and 115 exporters. The analysis suggests that tariff and NTMs are statistically significant determinants of trade flow, on average, 10% of trade tariff restrictiveness index (TTRI) reduction would increase trade volumes approximately 2%, while NTMs add another 1.8%. Furthermore, the study shows the importance of other trade costs, such as transactions costs at and behind the border as well, especially for low-income countries.

Bellanawithana et al (2009) examined the effect of NTM on agricultural exports using the gravity modeling approach by employing the value of agriculture trade flows as dependent variable and used the gravity model variables like GDP, distance, geographical proximity like common border, landlocked country and other variables like common language, colonial ties, etc. The trade restrictiveness indices of TTRI and OTRI were used as constructed by Kee, Nicita and

Olarreage (2006). The regression analysis showed that NTMs have significant negative effect on South-South and North-South trade, while NTMs have insignificant effect on agricultural exports in South-North and North-North trade. Ratna (2016) examined the impact of elimination of non-tariff related trade costs on intra-RCEP exports in a post FTA situation by using the gravity model. He observed that the impact of removing non-tariff trade costs will be more on intra-RCEP exports rather than a mere elimination of tariffs. He also suggested how to deal with the issues relating to non-tariff measures especially in the case of SPS and TBT in the RCEP negotiations.

The studies which so far have dealt with APTA have mostly focused on how countries can benefit from the membership of APTA. Pomfret (2008) analysed country-specific benefits of APTA membership for Azerbaijan, Kazakhstan and Kyrgyzstan, while Pholphirul (2009) examined how Malaysia, Vietnam, and Thailand can benefit.

III. Intra-APTA tariff and trade

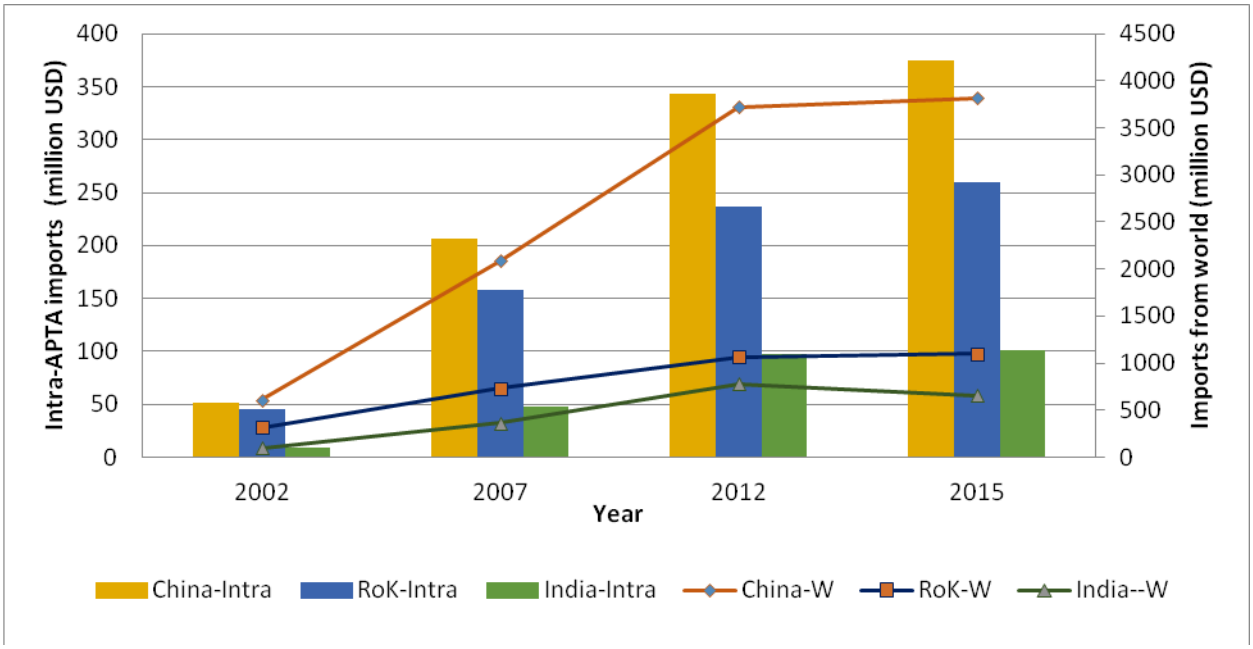
Since all APTA Participating States are members of WTO, their present MFN applied tariffs are low due to their WTO obligations as well as autonomous liberalisation which is mostly in the range of 2 to 10 %. In this regard, in APTA where the offer of tariff concession is partial, the critical issue for market access, thus, would be a reduction/elimination of NTMs. Though certain non-tariff measures (export and import quotas, import licenses, monopoly trade measures, etc.) have been disciplined under WTO, still a significant amount of non-tariff measures remain. Despite having disciplines on SPS and TBT in WTO, their use is increasing day by day. Costs associated with complying these regulatory procedures are impacting trade. ESCAP (2011) has estimated the tariff and non-tariff trade costs and found that non-tariff trade costs are higher than the tariff trade cost.[4] WTO (2012) observed that TBT/SPS measures distort trade in agricultural products. Thus, non-tariff related trade cost for APTA members and reduce trade cost could be made possible through the instruments of harmonization, mutual recognition, equivalence, conformity assessment, as they reduce transaction cost.

At present, APTA is the only operational trade agreement linking China, India and the Republic of Korea. Figure 1 depicts the intra-APTA imports from 2002 to 2015, which shows

[4] ESCAP (2011) "Trade Facilitation in Asia and the Pacific: An Analysis of Import and Exports Processes", Studies in Trade and Investment 71.

that the intra-APTA imports have seen a higher growth for all these three economies than those with the world.

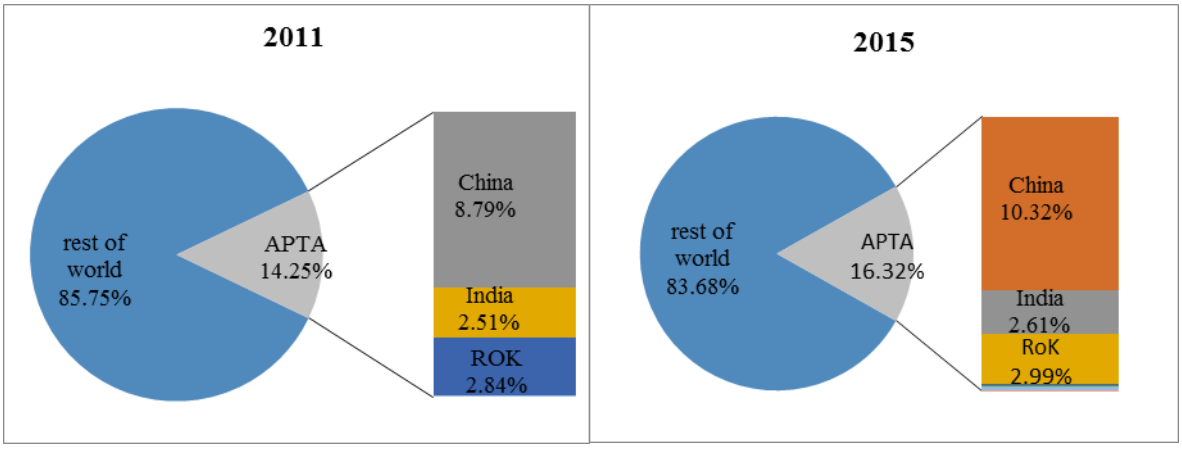
Figure 1: Imports of China, India and Republic of Korea



Source: Authors' compilation on the basis of WITS database

During 2011 to 2015 the intra-APTA imports share increased from 14 per cent to 16 per cent (from US $2627 billion to US $2868 billion). This increase in share by over 2 percentage points was mainly driven by China (figure 2).

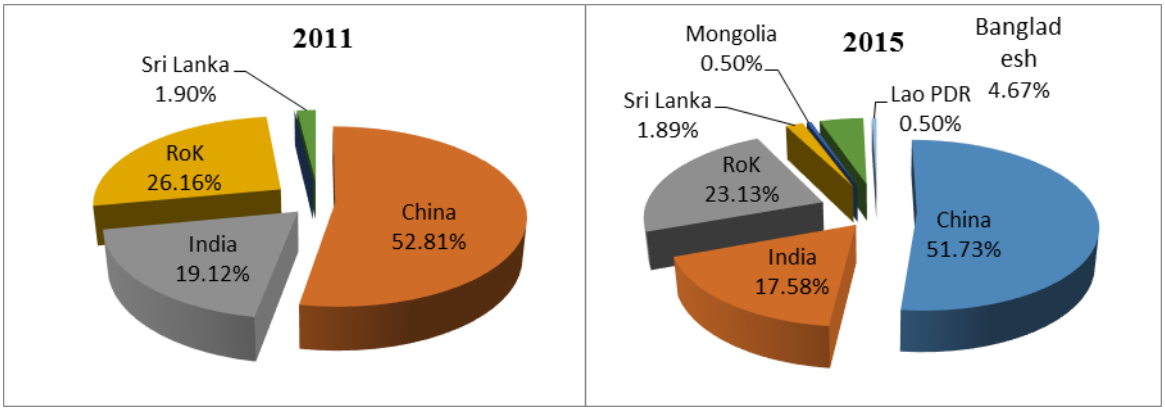
Figure 2: APTA import share



Source: Authors' compilation on the basis of WITS database; mirror data used for Lao PDR and Bangladesh.

Analysis of the import shares data from among the Participating States of APTA, showed that China's share as exporter to other APTA Participating States declined by 1 percentage point and the Republic of Korea by 3 percentage points, whereas India's share increased by 2 percentage points (figure 3).

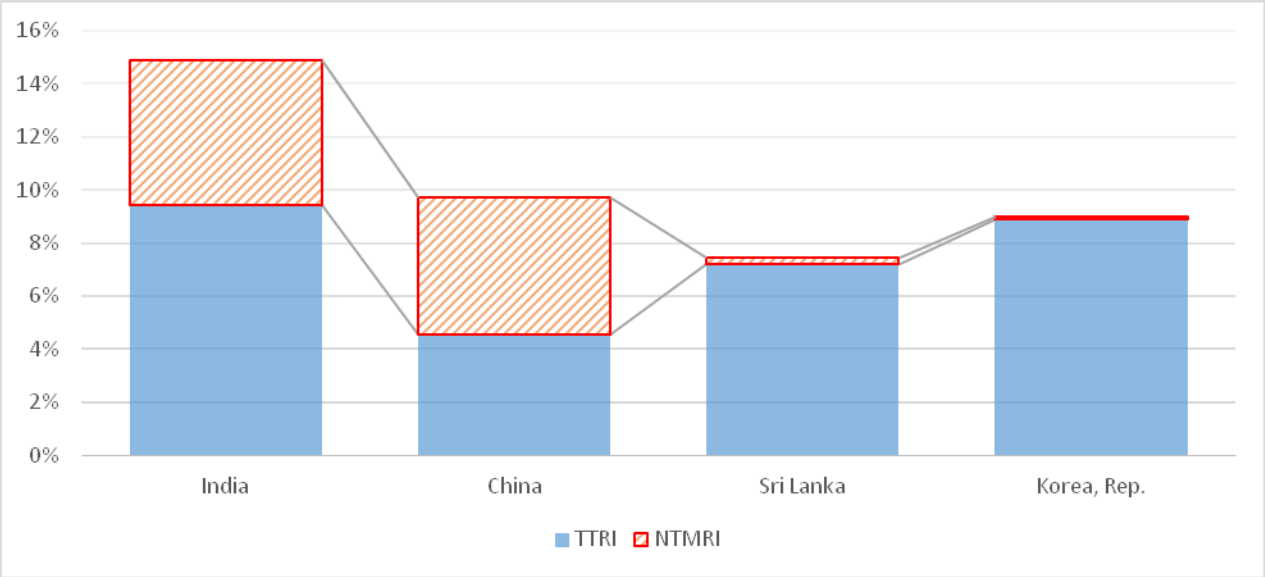
Figure 3: Share of intra-APTA import share



Source: Authors' compilation on the basis of WITS database; mirror data used for Lao PDR and Bangladesh.

In conventional FTA, countries often negotiate reduction in tariffs only and the provisions addressing the NTMs, particular in SPS and TBT measures are weak. Kee et al. (2009) measured Overall Trade Restrictiveness Index (OTRI) and Tariff Trade Restrictiveness (TTRI) for 78 developed and developing countries. He observed that NTMs increase the level of trade restrictiveness imposed by tariff (average 87 per cent). This study also states that the effect of NTMs on OTRI is bigger than the effect of tariff in 34 countries.

Figure 4: TTRI and NTMRI profile of Intra-APTA countries (2009)



Source: Authors compilation from World Bank database of OTRI available at http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/0,,contentMDK:22574446~pagePK:64214825~piPK:64214943~theSitePK:469382,00.html (accessed in August 2016)

Based on Kee et al (2009), in order to understand the tariff trade restrictiveness of the intra-APTA countries, as shown in figure 3 that except Bangladesh and Lao PDR which are two Least developed countries, among the other APTA countries India has the highest OTRI level (14.9%, followed by China (9.7%), RoK (9.0%) and Sri Lanka (7.4%). It is also evident that for China the major contribution is from NTM Restrictiveness Index (NTMRI), which is around 60 per cent of its OTRI and India's NTMRI is around 40 per cent of the OTRI and thus they form a major part of the trade restriction index and thus establishes their importance (figure 4).

IV. The Model

This section aims to quantify the impacts of reduction of tariffs and NTMs of APTA on overall market access using the gravity model. The objective is to analyse if the tariff preferences alone can ensure better market access or would it be important to address the NTMs as well, especially if APTA aims to become FTA. In this study, the biggest challenge is NTMs as per r HS classification so as to study their impact on trade. Various databases that provide information on NTMs are at the aggregate level and not at the 6 or 8 digit product level (HS) classification, hence a sectoral or product based analysis would be quite difficult and challenging. Even the WTO database is based on the notification submitted by the members, which is not always complete. This research study, therefore, used the overall trade

restrictiveness indices from the ESCAP-World Bank trade cost database – bilateral tariff cost and non-tariff equivalent trade costs, which provide annual data for all the countries for the period of analysis; however, this data is available only up to 2011.

In order to derive the relationships between tariffs and NTMs on trade flows, the gravity model has been used to examine the relationship between bilateral trade flows by using standard gravity variables and bilateral trade cost related to NTMs, developed by Ratna (2016). The standard variables used in this model are importing countries' GDP, exporting countries' GDP, distance, language, common border and colonial legacy. In this study, the standard gravity model has been used as a first model (Model 1). The second model (Model 2) added two more variables, tariff trade restrictiveness index (TTRI) and non-tariff measure restrictiveness index (NTMRI). In this model the impact of TTRI and NTMRI on export was examined. From these two models, the study examines which of these variables has a greater negative impact on exports. The paper examines if the FTA alone (APTA becoming an FTA where duties on goods will become zero) or a simultaneous reduction or elimination of NTMs would help the trade grow more faster. We also examine which of these two variables will have a relatively stronger impact in boosting intra-APTA trade, with the hypothesis that reduction or elimination of both will influence trade positively.

The gravity models used for this purpose are as follows:

Model 1:

$$\ln(v)_{ijt} = b_0 + b_1 ln(GDP)_{it} + b_2 ln(GDP)_{jt} + b_3 \ln(Dist)_{ij} + b_4 (Lang)_{ij} + b_5 (Conting)_{ij} + b_6 (Colony)_{ij} + e_{ij}$$

Model 2:

$$\ln(v)_{ijt} = b_0 + b_1 ln(GDP)_{it} + b_2 ln(GDP)_{jt} + b_3 \ln(Dist)_{ij} + b_4 (Lang)_{ij} + b_5 (Conting)_{ij} + b_6 (Colony)_{ij} + b_7 (TTRI)_{jit} + b_8 (NTMRI)_{jit} + e_{ij}$$