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The Effects of Agricultural Trade Liberalisation under the Doha Development Agenda with Special Reference to the Asia Pacific Region: A Brief Survey

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I. Introduction

Agriculture has been the most protected and distorted sector in the Asia-Pacific region similar to many regions in the world. Many countries in the region are currently following a combined approach to agricultural trade reform. While many of them have been making some progress towards multilateral trade liberalisation through the WTO trade negotiations and regional trade liberalisation through RTAs, they have been successful in concluding a large number of BTAs. A growing amount of research is now being conducted on the effects of agricultural trade liberalisation. The main purpose of this paper is to survey the results of recent quantitative studies on the effects of Agricultural Trade Liberalization with special reference to the Asia-Pacific region under the July Framework Agreement or the “July Package” of the Doha Development Agenda, DDA (the decision adopted by the General Council of the WTO on 1 August 2004, see WTO, 2004, WT/L/579).

Remainder of this paper is organised as follows. The key features of agricultural protection in Asia-Pacific are identified in the next section in order to provide the background. Section 3 briefly explain the historical evolution of using computable or applied equilibrium (CGE or AGE) models in quantifying the effects of multilateral trade liberalisation. Section 4 surveys the results of recent quantitative assessments of proposed agricultural trade reform in the July package under the DDA by employing large scale CGE models. The final section of the chapter is devoted to concluding remarks.

II. The Main Features of Agricultural Protection in Asia-Pacific

In this section, we briefly highlight the main features of protection with special reference to the Asia-Pacific region using other studies and two main databases (MAcMap and GTAP databases). Until recently there was not a satisfactory way for a comparison of the level of the protection across regions and countries due to complexities of agricultural protection. However, the agricultural protection has systematically been incorporated into the MAcMap database as a result of the joint effort by ITC (UNCATD-WTO in Geneva) and CEPII in Paris (see for details of the methodology, Bouet, et al, 2004). As noted in Bouet, et al (2004, p.5),

“the main original contributions of MAcMap-HS6 are: (i) the exhaustive coverage of preferential trade arrangements (PTAs) across the world; (ii) the calculation of the AVE of specific duties, acknowledging the differentiated impact of such duties across exporters, depending on their unit values; (iii) the incorporation of tariff-rate quotas (TRQs) both trough the AVE of resulting protection at the margin, and through the calculation of involved rents; (iv) an original aggregation methodology, using a weighing scheme based on reference groups of countries, and limiting the extent of the endogeneity bias inherent to the standard, import-weighted average protection”.

This database assists policy analysts to compare protection across countries. It has also been well suited to analyse the effects of trade liberalisation within global CGE modelling framework. Therefore, it has been a major input to GTAP version 6 and has helped to improve protection data in the GTAP. Recent studies on Agricultural trade liberalisation have used MAcMap database extensively.

Anderson, *et al* (2005) have used the GTAP version 6 database (with the improved protection data from MAcMap) to compare protection across regions and important countries in the world. To begin our discussion on tariff protection focusing on the Asia-Pacific region we use their information in Table 1. It shows import-weighted average applied tariffs in countries in Asia-Pacific in comparison with some other countries. The most important feature of Table 1 is that agriculture has been the highly protected sector around the world and this has been even prominent in the Asia-Pacific region. Agricultural protection ranges from 2.6 percent in Australia and New Zealand to 53 percent in South Korea and Taiwan among selected countries in the Asia-Pacific region. Other leading countries in the region such as India, Japan, Vietnam and Thailand have also high aggregated protection rates. As can be seen from Table 1, aggregated tariff rates in EU (25), USA, Canada and leading South American are lower than many countries in the Asia-Pacific region. Table 1 also demonstrates that protection of primary agricultural sectors and processed food is higher than that of manufacturing in many countries in Asia-Pacific.

Table 2 shows the key features of applied agricultural tariffs in the region compared to other countries and regions around the world. As Jean, et al (2005) have demonstrated, the use of conventional average ad valorem tariffs in policy analysis is quite inadequate and misleading. Some countries are using nontransparent specific tariffs and Tariff Rate Quotas (TRQs). These complex issues are important in relation to some countries in Asia-Pacific. For example, specific tariffs play an important role in Japan and Pakistan and TRQs play a key role in Japan, Korea and ASEAN countries (see Jean, et al, 2005 for details).

Table 3 presents more detailed information on agricultural protection in the region. It has more country coverage than Table 1. Agricultural protection ranges from 2.0 percent in Australia to 45.4 percent in South Korea in the region. This rate in other countries such as India, Thailand, Vietnam and the rest of South Asian has also been high. Table 4 shows the variation of agricultural protection among main groups of trading partners (developed countries, developing countries and least developed countries). Some countries are granting preferential tariffs for LDCs. Table 4 reflects this feature. On contrary, many agricultural protection rates are higher for developing countries than developed countries. It is important to note that there are differences tariffs shown in Table 3 and Table 4. Table 3 shows tariffs related to different sectors and Table 4 shows tariffs related to different trading partners. This is the reasons for some discrepancies related to tariff rates on agriculture in different countries shown in tables 3 and 4.

Table 1: Import-weighted average applied tariffs, by Sector and By Country with special reference to Asia-Pacific, 2005

Importing Region	Agriculture and processed food	Primary Agriculture Only	Processed food only	Textile and Clothing	Other Manufacturing
Asia-Pacific					
High-Income Countries					
Australia and New Zealand	2.6	0.3	3.3	13.9	4.1
Japan	29.3	48.0	20.8	9.0	0.4
South Korea and Taiwan	53.0	84.5	22.4	9.2	3.6
Hong Kong and Singapore	0.1	0.0	0.2	0.0	0.0
Middle and Low Income Countries					
Bangladesh	12.7	7.4	21.2	29.9	16.2
China	10.3	9.9	11.0	9.6	5.5
India	49.9	25.7	75.6	26.5	24.2
Indonesia	5.0	4.3	6.2	8.0	4.3
Thailand	16.7	12.7	19.2	16.4	7.6
Vietnam	37.1	13.1	41.8	29.1	12.3
Rest of East Asia	13.4	18.6	9.0	8.7	3.5
Rest of South Asia	21.1	14.2	32.0	6.6	14.4
Selected Developed Countries					
EU25 + EFTA	13.9	13.2	14.7	5.1	1.7
United States	2.4	2.3	2.5	9.6	0.9
Canada	9.0	1.2	14.1	8.7	0.5
Selected Middle and Low Income Countries					
Argentina	7.1	5.6	7.8	11.1	10.1
Brazil	5.0	2.4	9.0	14.7	9.7
Mexico	10.3	10.8	9.7	7.8	4.3
South Africa	8.6	5.9	10.6	21.9	5.4
Middle East and North Africa	13.1	8.2	18.3	23.9	7.2

Source: Adopted from Anderson, *et al* (2005)

Table 2: Key Features of Applied Agricultural Tariffs by Country and Region, 2001
(Trade Weighted Averages, Percent)

Country	Overall Average	Ad valorem Tariffs	Specific Tariffs	Tariffs for TRQs*	TRQ Share
Asia Pacific					
Australia	3.0	2.1	0.9	1.0	5.6
Bangladesh	14.4	14.4	0.0	0.0	0.0
China	38.9	38.9	0.0	5.7	22.0
Japan	35.5	9.9	25.6	103.4	8.8
Korea	93.9	93.9	0.0	226.3	38.5
India	55.1	54.3	0.9	0.0	0.0
Pakistan	30.4	9.7	20.7	0.0	0.0
ASEAN	11.2	7.5	3.7	32.0	8.4
Other Selected Countries and Regions					
United States of America	2.7	0.9	1.7	11.2	17.1
Canada	9.7	8.3	1.3	30.7	21.0
Mexico	10.7	10.6	0.1	33.8	23.6
EU	11.8	3.1	8.8	35.5	21.5
Mercosur	12.9	12.9	0.0	6.9	3.3
European Free Trade Area	28.6	2.0	26.6	58.2	33.6
Sub Saharan LDCs	13.1	13.1	0.0	0.0	0.0
Other Sub Saharan Africa	25.6	25.5	0.0	0.0	0.0
Maghreb	17.6	16.2	1.5	39.4	14.3
South African Customs Union	13.0	4.4	8.6	16.3	55.9
Developed Countries	14.3	4.3	10.0	36.9	17.3
Developing Countries	20.9	18.5	2.4	63.7	11.6
LDCs	13.4	13.0	0.3	0.0	0.0
World	17.2	10.8	6.4	46.5	14.4

*TRQs are new protection instruments “through which a given amount of imports (allocated according to various possible modes of administration, and frequently on a bilateral basis) can benefit from a lowered tariff rate” (Bouet, et al, 2004, p.11)
Source: Adopted from Jean, et al, (2005)

Table 3: Ad-valorem Equivalent of Aggregate Tariff in the Asia Pacific Region, 2001

Country (Importer)	By Sectors			Total
	Agriculture	Manufacturing	Textiles and clothing	
Australia	2.0	4.3	16.4	5.2
Bangladesh	21.1	14.9	29.5	17.4
China	24.7	12.5	19.9	14.1
Hong Kong	0.0	0.0	0.0	0.0
India	28.4	30.1	30.3	33.4
Indonesia	8.6	5.1	9.3	5.7
Japan	30.1	0.6	9.9	3.8
Korea	45.4	5.2	11.1	8.9
Malaysia	17.0	11.2	14.0	12.0
New Zealand	2.1	2.2	8.0	2.7
Philippines	10.9	3.9	7.5	4.8
Sri Lanka	21.4	6.1	4.7	7.4
Taiwan	20.3	9.0	9.9	10.2
Thailand	29.8	10.1	21.0	12.7
Vietnam	26.7	10.6	32.6	15.1
Rest of South Asia	28.3	16.6	20.5	19.1
Rest of Southeast Asia	12.8	7.9	9.6	8.0
Rest of Oceania	29.2	3.5	8.7	7.3
Other Developed Countries				
United States	3.8	1.3	10.4	2.3
Canada	13.8	1.6	12.6	3.5
EU (15)	15.0	1.8	6.4	3.1

Source: MAcMap Database

Table 4: Ad-valorem Equivalent of Agricultural Tariff by Partners, 2001

Country (Importer)	Partners (by Exporter)		
	Developed Countries	Developing Countries	Least Developed Countries
Australia	2.3	1.3	0.4
Bangladesh	20.5	21.1	15.2
China	23.7	25.8	10.7
Hong Kong	0.0	0.0	0.0
India	53.7	64.8	34.1
Indonesia	9.4	9.3	3.5
Japan	33.1	26.7	9.1
Korea	45.3	46.7	33.2
Malaysia	11.2	24.9	45.2
New Zealand	2.5	1.0	0.1
Philippines	9.6	12.8	7.0
Sri Lanka	18.7	23.6	15.8
Taiwan	18.5	25.1	29.3
Thailand	29.2	30.1	27.6
Vietnam	25.3	25.4	20.9
Rest of South Asia	22.9	31.7	13.9
Rest of Southeast Asia	11.2	13.8	18.8
Rest of Oceania	24.7	28.1	31.7
Other Developed Countries			
United States	4.3	2.7	2.2
Canada	17.3	5.7	0.4
EU (15)	17.0	13.7	2.7

Source: MAcMap Database