

โครงการแผนแม่บทกระทรวงพาณิชย์ พ.ศ. ๒๕๔๐-๒๕๔๙

World-Trade Patterns and Contemporary Issues in International Trade Policy

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World Trade Patterns and Contemporary Issues in International Trade Policy

(รายงานทิศทางการค้าโลก: การพยากรณ์การค้าโลก)

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March 1999

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1. Introduction

This paper reviews existing literature on likely future patterns of world trade in goods and services, by commodity and geographic distribution. The review draws on studies of the impact of the Uruguay Round, as well as other literature directed at projecting trade flows. A secondary purpose of the paper is to provide a review of literature on the likely importance and impact of new issues in international trade and international economic policy in so far as they relate to competition policy, labor standards, environment and trade in services.

The organization of the remaining part of this paper is as follows. Section 2 reviews the literature on the likely future world trade patterns and section 3 examines issues of international trade and competition. Issues of international trade and labor standards and environmental standards are discussed in sections 4 and 5 respectively. Section 6 surveys issues that arise in trade in services and section 7 concludes the paper.

2. Projected world trade patterns

Projected market growth over the long implementation period of multilateral trade arrangements such as the Uruguay Round is especially useful to trade policy makers who are involved in such negotiations. Typically efforts in these negotiations are exerted with the goal of achieving the greatest possible benefits for their respective countries. This can be done more effectively if the policy makers are informed not just of the current size of particular markets, but also of the growth potential of those markets. In spite of this, many existing studies of policy reforms tend to consider policy shocks in isolation from such growth. For instance in the literature on the Uruguay Round Agreement, it is common to address the effect on the world economy in the base year, say 1992, had the Uruguay Round been introduced and had its full impact in that year. This type of studies necessarily ignores interactions with other changes which might be taking place in the economy concurrently. This omission may prove to be important with policy reforms such as those agreed under the Uruguay Round, since they are due to be phased in over a ten year period. A more relevant question to ask in this instance is on the effect of the Uruguay Round Agreement on the world economy in the year 2005, after it has been fully implemented.

The projection studies are particularly useful from a policy standpoint since they allow for comparisons between the amount of adjustment required by a multilateral agreement such as the Uruguay Round, and that required by the ongoing process of growth and structural change in the world economy. For this reason the review will draw from the studies conducting two sets of experiments, with the first set of experiments being performed using the benchmark structure of the world economy in the pre-Uruguay Round period. The second set of experiments is obtained by projecting the structure of the world economy forward to the year 2005, and then implementing the Uruguay Round liberalization from the benchmark equilibrium. However the projection results of the world economy are necessarily based on a number of assumptions. Two key assumptions underlying the results are that [i] China and Taiwan remain excluded from the World Trade Organization (WTO) during the implementation period of the Uruguay Round, and [ii] the elimination process of the quotas on trade in textiles and wearing apparel agreed under the Uruguay Round proceeds timely as scheduled. In the review, we also look at the projection results when each of these assumptions is relaxed and discuss how each of these possible scenarios may affect the world economy in the year of 2005.

We begin the discussion¹ by considering briefly the structure of the world economy in the year 1992, which is the pre-Uruguay Round period, since this is representative of most of the applied general equilibrium studies of the Uruguay Round. In the year 1992 (see Table 1), Canada, the United States and the countries belonging to the European Union (EU) together had 57.3 percent share of the global domestic gross product (GDP), and 54.7 percent share of the global exports. Excluding Japan, the Asian economies (which include Korea, Taiwan, Hong Kong, China, Indonesia, the Philippines, Thailand and the South Asian countries) together had only 7.6 percent share of the global GDP and 17.9 percent share of the global trade.

Table 1 GDP Share and Share of Total Exports by Region, 1992

Regions	GDP Share	Trade Share
United States and Canada (USC)	28.2	21.7
European Union - 12 (EU)	29.1	19.0
Japan (JPN)	15.9	11.9
Korea (KOR)	1.3	2.9
Taiwan (TWN)	1.0	3.0
Hong Kong (HKG)	0.1	2.2
China (CHN)	2.2	4.3
Indonesia (IDN)	0.6	1.2
Malaysia (MYS)	0.3	1.5
Philippines (PHL)	0.2	0.4
Thailand (THA)	0.5	1.2
Latin America (LTN)	5.3	5.8
Sub-Saharan Africa (SSA)	0.7	1.3
South Asia (SAS)	1.4	1.2
Rest of World (ROW)	13.1	22.3

Source: Bach, Dimaranan, Hertel and Martin (1997).

Bilateral trade patterns for seven aggregated regions in the year 1992 (see Table 2), which are obtained by considering export composition by destination (fob prices), reveal that Japan's share of total exports to Korea, Taiwan, Hong Kong, China, Indonesia, Malaysia, the Philippines, Thailand and the South Asian countries was 30.2 percent, while the share of intra-regional trade in these Asian countries (again excluding Japan) relative to total exports from this region was 28.0 percent. In the year 1992, Asia (excluding Japan) had only 18 percent of the total exports, while Canada and the United States had 22 percent and the European Union countries had 20 percent. Lastly Japan's share of total exports in the pre Uruguay Round period was 12 percent.

¹ The review on this section draws from a number of articles, in particular Bach, Dimaranan, Hertel and Martin (1997), Anderson, Dimaranan, Hertel and Martin (1997), Hertel, Bach, Dimaranan, Hertel and Martin (1996), Anderson, Dimaranan, Hertel and Martin (1996a,b), Ingco (1995, 1997), Lewis, Robinson and Wang (1995), Martin and Winter (1996c), Brown, Deardorff, Fox and Stern (1995), and Brown, Deardorff and Stern (1995). It also draws from a number of reading articles in Martin and Winters (1996a) and Hertel (1997). The former includes Martin and Winters (1996b) Hathaway and Ingco (1996), Abreu (1996), Goldin and Mensbrugghe (1996), Hertel, Martin and Yanagishima (1996), Harrison, Rutherford and Tarr (1996), Francois, McDonald and Nordstroem (1996), and Brown, Deardorff, Fox and Stern (1996). The latter includes chapters II, III and IV.

Table 2. Export Composition by Destination (FOB Price), 1992

	Importer USC	EU	JPN	ASI	LTN	SSA	ROW	% of Total Exports
Exporter								
USC	26.3	23.6	12.0	12.4	12.1	0.6	12.9	22
EU	18.9	0.0	7.0	11.1	6.0	3.8	53.1	19
JPN	29.1	19.3	0.0	30.2	4.4	1.0	16.0	12
ASI	21.6	16.9	14.7	28.0	2.3	1.2	15.2	18
LTN	42.7	21.7	6.5	5.5	16.7	0.6	6.4	6
SSA	27.8	50.2	3.4	4.8	4.1	3.2	6.5	1
ROW	10.2	44.8	11.1	12.6	2.1	0.7	18.5	22
% of Total Imports	22	22	9	17	6	1	22	\$3, 224 B

Note: ASI includes KOR, TWN, HKG, CHN, IDN, MYS, PHL, THA AND SAS. This table presents information on bilateral trade pattern for seven aggregated regions in the GTAP data base in the 1992 equilibrium.

Source: Bach, Dimaranan, Hertel and Martin (1997).

Projecting the structure of the world economy in the year 1992 forward to the year 2005 over a 13 year period (see Table 3), we obtain the projected changes in the composition of value-added at 1992 prices for the ten aggregated sectors and fifteen regions for the year 2005. It shows that the relative importance of agriculture is likely to decline sharply in the high-performing economies in East Asia in the year 2005, while at the same time the share of their manufacturing activity is expected to continue to increase. Production of wearing apparel is projected to decline in relative importance in most industrialized countries and in Hong Kong, Korea and Taiwan, while it is likely to assume increased relative prominence in the ASEAN countries. Except in Hong Kong and Sub-Saharan Africa countries, the services sector is projected to expand in almost all regions due to a more income elastic demand for services.

Table 3 Changes in Composition of Value-Added for 1992-2005

	Sector									
	Pagr	Pfood	Nres	Text	Wapp	LMnfc	TMEq	HMnfc	UH&CS	Svces
Regions	-18	-20	2	-11	-19	-10	19	1	-1	0
USC	-22	-25	-9	-23	-45	-18	13	-14	-14	13
EU	-9	-11	21	-16	-31	0	-9	3	7	1
JPN	-63	-35	7	-36	-60	20	-10	14	-12	21
KOR	50	-32	17	-48	-52	44	-37	62	11	-5
TWN	-35	91	36	64	-49	95	20	68	11	-12
HKG	-82	-9	43	47	23	82	34	113	31	4
CHN	-46	-6	-37	9	-2	40	30	61	13	35
IDN	-64	-10	-47	3	30	49	-34	-12	-14	62
MYS	-14	-1	4	0	13	-4	-42	4	-7	10
PHL	-77	-23	-67	0	-4	47	-19	23	0	40
THA	-15	-11	18	-6	-6	-7	-36	-8	-22	12
LTN	12	17	-21	11	47	-5	-51	-13	-13	7
SSA	-30	1	22	23	21	38	33	38	44	-4
ROW	-23	-13	-18	-14	-20	-5	-9	-9	-3	11

Note: Evaluated at 1992 prices.

Source: Bach, Dimaranan, Hertel and Martin (1997).

The rapid growth accompanied by structural changes in East and Southeast Asia over the projection period is predicted to lead to an increase in the share of global exports for the Asian countries (excluding Japan) by 8 percent in the year 2005 (compare Table 2 with Table 5). In fact, both GDP and trade shares are predicted to increase in all Asian countries (compare Table 1 with Table 4). Latin America and Sub-Saharan Africa are likely to experience only minutely small increases in their GDP and trade shares in the year 2005. The industrialized countries are projected to suffer a decline in their GDP and trade shares in the year 2005, with the countries belonging to the European Union experiencing the sharpest decline.

Table 4. GDP Share and Share of Total Exports by Region, 2005

Regions	GDP Share	Trade Share
USC	21.4	20.2
EU	27.3	16.8
JPN	14.8	9.3
KOR	1.8	4.0
TWN	1.4	3.9
HKG	0.1	2.9
CHN	4.6	7.9
IDN	0.8	1.5
MYS	0.5	2.4
PHL	0.3	0.5
THA	0.8	1.9
LTN	5.6	6.2
SSA	0.8	1.5
SAS	1.9	1.5
ROW	11.9	19.5

Source: Bach, Dimaranan, Hertel and Martin (1997).

Table 5. Export Composition by Destination (FOB Price), 2005

	Importer							% of Total Exports
	USC	EU	JPN	ASI	LTN	SSA	ROW	
Exporter								
USC	26.0	20.1	10.4	18.9	12.1	0.6	11.9	20
EU	18.3	0.0	6.5	16.9	6.2	4.4	47.7	17
JPN	24.1	15.4	0.0	32.0	3.8	1.0	13.7	9
ASI	19.6	14.9	13.4	33.7	2.3	1.2	14.8	26
LTN	40.1	22.3	6.1	7.7	16.1	0.6	7.1	6
SSA	21.8	54.1	3.0	7.9	3.2	3.2	6.8	1
ROW	9.4	42.9	9.9	17.7	2.0	0.8	17.4	20
% of Total Imports	20	20	9	24	6	2	20	\$4,944 B

Note: ASI includes KOR, TWN, HKG, CHN, IDN, MYS, PHL, THA AND SAS. This table presents information on bilateral trade pattern for seven aggregated regions in the GTAP data base in the 2005 equilibrium.

Source: Bach, Dimaranan, Hertel and Martin (1997).

The projected bilateral patterns for seven aggregated regions show that the share of exports in the Asian countries is expected to increase significantly in the year 2005 (compare Table 2 and Table 5). In fact the share of intra-regional trade in Asia relative to total exports from that region is likely to increase by about 6 percent, while the percentage increase in exports over this 13 year period is projected to be 127.6 percent for the Asian countries, and only 42.7 percent for Canada and the United States and 35.6 percent for the European Union countries.

Having projected the structure of the economy onward to the year 2005, we next consider the implementation of the liberalization initiated by the Uruguay Round Agreement from the year 2005 equilibrium. The most discussed form of protection by the Uruguay Round pertains to restrictions on trade in textiles and wearing apparel under the Multifiber Arrangement (MFA). As the effect of these quotas is similar to an export tax levied by the exporting countries, the protective effects of these bilateral quotas are usually proxied by export tax equivalents.

Looking at the effective export tax equivalents of MFA quotas imposed by the major importing economies against textile and clothing imports from each of the providing countries in the year 1992 suggests that (see Table 6), of these two products, bilateral quotas appear to be binding more severely for wearing apparel, leading to overall larger export tax equivalents for this commodity. The highest export taxes are experienced by Indonesia, with rates of 46 and 48 percent respectively on exports of wearing apparel to North American and European countries. China faced the rates of 40 and 36 percent respectively to North America and Europe, and South Asia faced similar rates as China.

In the case of textile, China and South Asia faced the highest export taxes, each with the rates of 19 and 27 percent respectively to North America and Europe. This is followed by Indonesia, with the rates of 13 and 17 percent respectively to North America and Europe. Korea, Malaysia, and Latin American countries faced the rates of 10 percent to Canada and the United States, while Thailand and the Latin American countries experience the rate of 13 percent to the countries belonging to the European Union.

Table 6. Share of Total Exports Going to Restricted Markets and Export Tax Equivalents Associated with the MFA (Percent of Market Prices in Exporting Region), 1992

	Textiles			Wearing Apparel		
	Shares	Taxes		Shares	Taxes	
		USC	EU		USC	EU
KOR	5	10	10	58	23	19
TWN	12	8	12	83	19	22
HKG	7	7	8	81	17	16
CHN	19	19	27	33	40	36
IDN	25	13	17	58	46	48
MYS	21	10	12	47	37	32
PHL	50	9	10	84	33	28
THA	40	9	13	44	35	36
LTN	50	10	13	89	20	18
SAS	45	19	27	83	40	36
ROW	59	5	6	87	16	10

Source: Hertel (1997).

The growth rates of MFA quotas were determined through bilateral negotiations.² In general the cumulative growth rates applying under the revised MFA were higher for Canada and the United States than they were for the European Union countries (see Table 8). The South-Asian countries faced the highest cumulative growth rates in textiles (118 percent to North America and 89 percent to Europe) and wearing apparel to North America (121 percent). Whereas Indonesia experienced the highest cumulative quota growth rate in wearing apparel to Europe (100 percent). The MFA cumulative growth rates in clothing were relatively small in Taiwan, Korea and Hong Kong and the cumulative growth rate in textile were also relatively small in Taiwan and Hong Kong and China.

The projected tax equivalents in the year 2005 are obtained by incorporating the effect of global growth and structural changes as well as the MFA quota growth rates discussed above (see Table 7). The quotas are projected to become more binding in the year 2005 in most regions, except the North American imports from the Latin American countries and the countries from the rest of the world. These countries are likely to experience declining export tax equivalents. Countries such as China, Indonesia, Malaysia and the Philippines are projected to face the sharpest increase in the tax equivalents for exports of clothing.

A comparison of the shares of total exports of each commodity aggregated to the MFA restricted markets in the year 1992 and 2005 suggests (compare Table 7 and Table 6)³ that exports from China, Indonesia, Malaysia and the Philippines to North America and Europe are projected to decline over this period. The combination of binding quotas and rapid income and population growth in other countries alone would account for this declining trend. In other words, the projection result reveals that the world market for textiles and wearing apparel is likely to shift away in the year 2005 from the traditional importers toward the Asian countries.

Table 7 Share of Total Exports Going to Restricted Markets and Export Tax Equivalents Associated with the MFA (Percent of Market Prices in Exporting Region), 2005

	Textiles			Wearing Apparel		
	Shares	Taxes		Shares	Taxes	
		USC	EU		USC	EU
KOR	14	14	16	54	35	33
TWN	7	25	28	76	33	39
HKG	4	17	22	70	29	32
CHN	12	36	44	20	62	63
IDN	22	18	26	58	56	64
MYS	17	16	22	32	52	54
PHL	47	12	24	80	43	48
THA	32	16	25	33	48	53
LTN	58	5	12	93	19	21
SAS	42	24	36	80	51	53
ROW	66	0	6	94	15	15

Source: Bach, Dimaranan, Hertel and Martin (1997).

² Initially the MFA allowed a growth rate of 6 percent per year in quotas for textiles and clothing (GATT, 1973, Annex B). Subsequent renegotiation allowed the growth rates to be reduced to zero for some supplying countries.

³ Yang, Martin and Yanagishima (1994) show that this share is an important indicator of whether an exporting country is likely to gain or lose from the limitation of the MFA.

Table 8 Cumulative MFA Quota Growth Rates (%) under the MFA and the ATC, 1992-2005

	Textiles		Wearing Apparel	
	USC	EU	USC	EU
KOR	70	60	10	33
TWN	34	46	6	33
HKG	48	14	15	19
CHN	50	69	60	53
IND	113	71	114	100
MYS	113	65	110	66
PHL	116	0	103	0
THA	108	51	106	99
LTN	111	62	100	67
SAS	118	89	121	89
ROW	115	54	87	39

Source: Bach, Dimaranan, Hertel and Martin (1997).

The Uruguay Round Agreement other than the MFA includes weighted averages for the pre-Round and post-Round tariffs as well as trade-weighted average price reductions for imports in manufactures.⁴ The South Asian countries experienced the highest pre Uruguay Round tariffs on non-food manufactures in their imports with a rate of 52 percent (see Table 9). This is followed by Thailand and the Philippines which average manufacturing tariff prior to the Uruguay Round were 36 and 24 percent respectively. The OECD countries faced relatively low rates of manufacturing protection in the pre Uruguay Round compared to the East Asian countries (excluding Japan), ranging from 4.3 percent for Canada and the United States to 6.5 percent for the European Union countries.⁵

The pre Uruguay Round tariffs on food and agriculture were higher in the ASEAN countries (excluding Indonesia) relative to other parts of the world (see Table 9). Korea had a rate of 99.5 percent, followed by Malaysia (87.9 percent), Japan (87.8 percent), the Philippines (86.9 percent), and Thailand (59.8 percent). The European Union countries and the North American countries had relatively low tariff rates on this category, at 26.5 and 11.7 percent respectively.

⁴ The trade-weighted average protection rates for manufacturers were computed based on the disaggregated tariff and trade data obtained from the WTO's integrated data base. The pre Uruguay Round numbers are either the bound tariff rate (if the tariff was bound at the onset of the Uruguay Round), or the tariff rate applied in September 1996 (if the tariff rate was not previously bound). In most developed countries, the pre Uruguay Round bound tariff was the same as the applied rate for the majority of goods. In contrast in developing countries, only 1/5 of industrial products were subject to bound tariffs prior to the Uruguay Round (GATT, 1944a), and so the average tariffs reported for these countries are based on applied rates. See Hathaway and Ingco (1995) and Ingco (1995) for more details on estimates of the protection rate in the food products. As pointed out in Ingco (1995), the pre Uruguay Round tariff equivalents of agricultural protection are calculated from estimates of the average rate applying over the period 1979-1983 in OECD countries and over the period 1982-1992 in other countries due to large yearly variability of these tariff equivalents.

⁵ The data for China, Hong Kong and Taiwan are not available from the World Trade Organization's data base. However see Bach, Martin and Stevens (1996) or an analysis of these countries.

Table 9 Average Pre- and Post-Uruguay Round Protection Level (by Importing Region)

	Pre-UR Tariff (%)		Post-UR Tariff (%)		Average Import Price Cuts (%)	
	Food	Mnfcs	Food	Mnfcs	Food	Mnfcs
USC	11.7	4.3	11.0	2.8	-0.6	-1.4
EU	26.5	6.5	26.0	3.9	-0.3	-2.4
JPN	87.8	4.9	56.1	2.1	-8.1	-2.7
KOR	99.5	16.1	41.1	8.2	-17.9	-6.8
TWN	0.0	0.0	0.0	0.0	0.0	0.0
HKG	0.0	0.0	0.0	0.0	0.0	0.0
CHN	0.0	0.0	0.0	0.0	0.0	0.0
IND	21.9	14.2	15.5	13.5	-4.2	-0.6
MYS	87.9	11.0	34.3	7.7	-14.9	-2.9
PHL	86.9	23.9	33.4	21.5	-15.3	-1.8
THA	59.8	36.2	34.5	27.6	-10.8	-5.9
LTN	2.3	17.1	1.5	14.9	-0.5	-1.6
SSA	15.6	9.5	12.4	9.4	-1.7	-0.1
SAS	-3.5	51.9	-4.3	37.1	-0.7	-9.4
ROW	15.7	10.6	14.1	9.1	-1.2	-1.3

Sources: a: Integrated Data Base, WTO.

b: Change in tariff rate divided by the power of the initial tariff rate. It is the average of the disaggregate price cuts, and is distinct from the average price cut computed from the average tariffs.

c: Integrated Data Base does not have data for these countries.

The estimates of post Uruguay Round tariffs are calculated based on the rule that the protection rate falls when the final bound tariff is less than the pre Uruguay Round tariff rate.⁶ The largest (absolute) reductions in tariff rates on manufactures in the post Uruguay Round are expected to take place in Korea, Thailand and the South Asian countries (see Table 9). For instance, Korea's manufacturing protection rate is projected to fall from 16.1 to 8.2 percent, while Thailand's rate for this two sector is likely to fall from 36.2 to and 27.6 percent. The proportional reductions in average tariff on non-food manufacturers in the Organization for Economic Cooperation and Development (OECD) and Latin American countries are projected to be quite substantial.

The post Uruguay Round rates on food and agriculture are expected to experience the largest absolute reduction in the ASEAN countries (see Table 9).⁷ For instance the

⁶ As argued by Martin and Francois (1994), this method ignores cuts in average protection rates due to the introduction of bindings above current rates. It tends to overstate the marginal cut in protection due to a binding which reduces protection below its historical average levels. Finally it ignores estimation of the welfare gains obtained from reducing the variability of protection. However bindings without reductions covered only about 3 percent of imports of industrial products into developed countries (GATT, 1994). Therefore this omission is unlikely to be important for these countries. In contrast in developing countries, bindings without tariff reductions covered about 28 percent of total imports of industrial goods. Therefore this omission may be more serious.

⁷ The numbers for food import barriers are aggregated from the estimates prepared by Ingco (1995) based on the average historical protection rates derived from OECD and USDA to capture the trade distortions which would have been obtained in the absence of the Uruguay Round, and on country schedule data to represent post Uruguay Round rates of protection. The applied rate of protection is assumed to have been cut when the post Uruguay Round protection rate is below the historical average protection rate. Therefore this method ignores the liberalizing effects of tariff bindings brought about without any reduction in the applied tariff rates.

protection rate in this category is projected to fall from 87.9 to 34.3 percent in Malaysia, and from 86.9 to 33.4 percent in the Philippines. The Sub-Saharan African countries are expected to experience a decline in their protection rate on food and agriculture by 3.2 percent, while the Latin American countries by 0.8 percent. The OECD countries are expected to have only minutely small reductions in their protection rates.

The average price on imports of non-food manufacturers are projected to fall significantly in Korea, Thailand and the South Asian countries by 6.8, 6.3 and 9.4 percent respectively (see Table 9). The OECD countries experience small reductions in their import prices for non-food manufacturers. The reduction in import prices for these goods is expected to be only 1.4 percent for Canada and the United States, 2.4 percent for the countries belonging to the European Union. This is largely because their pre Uruguay Round rates on manufacturing goods were relatively low. However the Latin American countries' average price reduction on their imports in this category is also small, at 1.6 percent only, despite the large reductions in applied rates of protections in this region. Lastly the reduction in import prices in the Subsaharan African countries are expected to be even smaller, at 0.1 percent only.

The reductions in average import price in food and agriculture are quite substantial and much larger than the manufacturing price reductions in the ASEAN countries (see Table 9), with Korea at a rate of 17.9 percent, followed by the Philippines (15.3 percent), Malaysia (14.9 percent), Thailand (10.8 percent), Japan (8.2 percent) and Indonesia (4.2 percent). The OECD countries (excluding Japan), and the Latin American countries experience only minutely small reductions in their food and agriculture prices. The South Asian countries appear to subsidize their food imports on average, with a slightly larger subsidy in the post Uruguay Round.

The benefits of trade liberalization can be measured by approximately aggregating the tariff cuts based on the value of the imports to which they apply.⁸ Comparing the value of reductions (in 1992 dollars) in protection to agriculture and manufacturers agreed under the Uruguay Round offered by each region and that in the year 2005, and comparing the percentage share of the global value of reductions provided by each of the importing regions between the years of 1992 and 2005 suggest the increasingly important role played by the developing countries (see Table 10). For instance the share of Korea is projected to increase from 13.5 to 16.7 percent over this period, while the East-Asian countries (Indonesia, Malaysia, Thailand and the Philippines) are projected to increase their share of the global value of reductions from 11.5 to 17 percent. In contrast, major developed countries are likely to see their shares declining over this period, with Canada and the United States' share falling from 11.8 to 10.9 percent, the European Union countries' from 16.5 to 14.1 percent, and Japan from 25.1 to 20.6 percent.

The values of reductions by supplying regions and the changes in their relative importance over the period 1992-2005 show a great deal of variety. For exports from Canada and the United States, 65 percent of the value of reductions comes from Japan and the newly industrialized economies (NIEs) such as Hong Kong, Singapore, Korea and Taiwan based on the trade weights for the year 1992 (see Table 11). With the projected trade pattern for the year 2005, the share of Japan's reductions is projected to decline from 46.7 to 36.7 percent, while those of the NIEs increase from 18.2 to 24.2 percent (compare Table 13 with Table 11).

⁸ This is a very rough indicator of the value of the tariff reductions. But it does make some crude adjustment for the importance of specific trade flows. Moreover it is widely used by trade negotiators as a rough estimate of the benefits of offers by their trading partners.

Table 10. Value of Bilateral Cuts in Protection for all Commodities, 1992

	Imports		Exports	
	\$	%	\$	%
USC	-8,521	11.8	-18,829	26.0
EU	-11,903	16.5	-12,470	17.2
JPN	-18,138	25.1	-8,748	12.1
KOR	-9,798	13.5	-1,852	2.6
TWN	0	0.0	-3,515	4.9
HKG	0	0.0	-1,053	1.5
CHN	0	0.0	5,120	7.1
IDN	-349	0.5	-675	0.9
MYS	-2,603	3.6	-1,005	1.4
PHL	-1,148	1.6	-283	0.4
THA	-4,170	5.8	-1,307	1.8
LTN	-3,345	4.6	-2,417	3.3
SSA	-239	0.3	-163	0.2
SAS	-3,697	5.1	-850	1.2
ROW	-8,434	11.7	-14,059	19.4

Notes: a) The value of reductions (in 1992 millions of US dollars) offered by each region.

b) The percentage share of the global value of reductions provided by each importing region.

Source: Bach, Dimaranan, Hertel and Martin (1997).

Table 11. Value of Bilateral Cuts in Protection for all Commodities, 1992

Source	Destinations, percentage of cuts to each source country/region									
	USC	EU	JPN	NIEs	CHN	ASE	LTN	SSA	SAS	ROW
USC	0.4	13.9	46.7	18.2	0.0	7.9	5.8	0.4	2.9	3.8
EU	16.8	0.0	13.0	7.6	0.0	6.1	8.3	0.9	10.4	36.9
JPN	21.8	17.6	0.0	21.1	0.0	17.1	6.0	0.0	9.2	7.2
NIEs	20.5	14.0	31.5	4.2	0.0	15.4	3.2	0.1	3.0	8.0
CHN	15.3	7.9	22.4	30.8	0.0	14.5	0.3	0.0	1.0	7.8
ASE	13.8	12.9	34.0	5.5	0.0	18.0	0.4	0.1	1.0	14.3
LTN	34.7	13.6	26.9	5.0	0.0	3.8	8.6	0.2	2.1	5.1
SSA	4.9	29.9	12.8	3.3	0.0	13.1	2.1	1.4	19.4	13.2
SAS	14.5	18.4	6.9	4.9	0.0	36.1	0.9	0.1	4.5	13.6
ROW	6.6	39.0	19.3	9.8	0.0	12.8	1.7	0.2	4.7	6.0

Notes: a) Hong Kong, Singapore, Korea, and Taiwan.

b) Indonesia, Malaysia, the Philippines, and Thailand.

Source: Hertel, Bach, Dimaranan and Martin (1996).

The shares of the total value of reductions given to the European Union countries by Canada and the United States fall from 16.8 to 15.6 percent (compare Table 13 and Table 11). Those by Japan and the rest of the world also decline, with Japan falling from 13.0 to 8.4 percent, and the rest of the world from 36.9 to 30.7 percent. The tariff reductions offered to the European Union countries by the NIEs are expected to rise from 7.6 to 10.8 percent, and those by the ASEAN and latin American countries are expected to increase from 6.1 and 8.3 percent to 10.9 and 8.8 percent respectively. Finally for exports from developing countries, the tariff reductions offered by the developed countries are expected to decline, while those offered by the newly developing economies are projected to increase in the year 2005.

Table 12. Value of Bilateral Cuts in Protection for all Commodities, 2005

	Imports		Exports	
	\$	%	\$	%
USC	-12,679	10.9	-28,031	24.1
EU	-16,403	14.1	-16,036	13.8
JPN	-24,013	20.6	-11,728	10.1
KOR	-19,490	16.7	-3,779	3.2
TWN	0	0.0	-7,530	6.5
HKG	0	0.0	-2,193	1.9
CHN	0	0.0	-15,758	13.5
IDN	829	0.7	-1,355	1.2
MYS	6,485	5.6	-2,362	2.0
PHL	-2,000	1.7	-478	0.4
THA	-10,453	9.0	-3,026	2.6
LTN	-4,715	4.1	-3,517	3.1
SSA	-365	0.2	-382	0.3
SAS	-6,879	5.9	-2,204	1.9
ROW	-12,199	10.5	-17,974	15.4

Notes: a) The value of reductions (in 1992 millions of US dollars) offered by each region.

b) The percentage share of the global value of reductions provided by each importing region.

Source: Bach, Dimaranan, Hertel and Martin (1997).

Table 13. Value of Bilateral Cuts in Protection for all Commodities, 2005

Source	Destinations percentage of cuts to each source country/region									
	USC	EU	JPN	NIEs	CHN	ASE	LTN	SSA	SAS	ROW
USC	0.3	12.9	36.7	24.2	0.0	11.7	5.8	0.3	4.4	3.6
EU	15.6	0.0	8.4	10.8	0.0	10.9	8.8	0.7	14.2	30.7
JPN	16.8	12.7	0.0	26.3	0.0	22.7	4.5	0.0	11.0	5.9
NIEs	17.1	12.3	27.9	5.0	0.0	21.7	3.2	0.1	3.9	8.7
CHN	15.0	8.6	18.1	27.5	0.0	17.9	0.4	0.0	1.5	11.1
ASE	13.0	11.5	29.7	5.6	0.0	21.6	0.8	0.1	1.1	15.6
LTN	30.1	13.3	25.3	6.3	0.0	8.1	8.0	0.2	2.4	6.2
SSA	3.0	28.6	8.4	3.4	0.0	23.2	1.3	1.2	13.7	17.2
SAS	12.2	15.5	4.5	4.8	0.0	44.2	1.2	0.1	4.4	13.1
ROW	6.3	36.4	14.4	11.4	0.0	18.9	1.6	0.1	5.5	5.3

Notes: a) Hong Kong, Singapore, Korea, and Taiwan.

b) Indonesia, Malaysia, the Philippines, and Thailand.

Source: Hertel, Bach, Dimaranan and Martin (1996).

To better capture the effect of the Uruguay Round on the world trade patterns in the year 2005, the experimental design of the early projection exercise of the world trade patterns is modified by introducing the associated cuts in tariffs, tariff equivalents of

non-tariff import restrictions, import access commitments for rice, and exports subsidies.⁹ The projected impact of the Uruguay Round on average world price by the year 2005 as compared with the case for the year without the Uruguay Round (see Table 14) reveals higher prices in the year 2005 as a result of reductions in export subsidies and improvement in market access to farm products. Average world prices of textiles and wearing apparel product fall substantially if the Uruguay round is fully implemented by the year 2005. This price reduction is projected to occur largely because bilateral quotas on exporting textiles and wearing apparel are being phased out by most countries, except China and Taiwan. The Uruguay Round is also projected to increase world trade volume by the year 2005, with the largest increase being in agriculture products (see Table 14); for instance, rice exports are projected to increase by 147 percent and process food exports by 53 percent in the year 2005, compared to the case if they were no Uruguay Round. Trade in textiles and wearing apparel is projected to increase by 80 and 29 percent respectively brought about by the removal of bilateral quotas on these products mainly in Canada, the United States and the European Union countries.

Looking at the percentage changes in regional exports and imports as a result of the Uruguay Round reveals that countries such as Indonesia, the Philippines, Thailand, Malaysia, Republic of Korea and India are projected to experience large increases in trade in the year 2005 (see Table 15). Some of these countries also enjoy the benefits associated with the annulment of the Multifibre Agreement (MFA). Industrialized countries, Taiwan, Hong Kong and Singapore are also expected to enjoy increases in trade, but to a much lesser degree.

Table 14 Impact of the Uruguay Round on World Trade by 2005 (Percentage Change)

Commodity	Price	Volume
Rice	2.1	147
Wheat	5.2	8
Coarse grains	2.3	32
Other Crops	2.5	13
Livestock products	4.1	25
Pfood	-0.4	53
Nres	0.7	0
Text	-2.7	29
Wappr	-10.3	80
Lmnfc	0.6	6
TMEq	0.5	6
Hmnfc	0.6	7
Svces	0.7	4

Source: Anderson, Dimaranan, Hertel, and Martin (1997)

⁹ The numbers for the reductions in the protection rates in the non-agricultural sector are taken from the WTO's Integrated Data Base, and those in the agricultural sector are based on the work carried out by researchers in the World Bank and are contained in Martin and Winters (1996). Note that the reductions in the protection rates are not available for China and Taiwan.

**Table 15 Impact of the Uruguay Round on Regional Trade by 2005
(Percentage Change)**

Region	Trade Volume	
	Exports	Imports
NAFTA	7	8
WE	6	8
AUS/NZ	8	8
JPN	8	9
KOR	23	20
TWN	3	4
HKG/SGP	2	1
CHN	2	2
IDN	38	30
MYS	22	18
PHL	28	19
THA	23	18
IND	72	54
SU	1	1
ROW	17	15
WORLD	10	10

Note: a) Canada, Mexico and the United States. b: Western Europe. c: Australia and New Zealand.

b) Hong Kong and Singapore. e: India. f: Former Soviet Union.

Source: Anderson, Dimaranan, Hertel, and Martin (1997).

The projected change in the composition of the world economy over the period 1992-2005 can be considered by computing the percentage change in the relative importance of each sector in the real gross domestic product (GDP) of each region between the year 1992 and the year 2005 (see Table 16). China is projected to experience major structural changes, with the share of farm and food activity in GDP declining sharply in favor of growth in importance of manufacturing and services. Textiles and wearing apparel are the non-farm sectors in China, which also experience a decline during the period 1992-2005. This is not surprising since Chinese exporters of these products, being assumed to be excluded from the Uruguay Round, do not benefit from the annulment of the MFA. This is likely to affect the patterns of expansion of the Chinese economy over this period substantially, implying that there is likely to be a large gain from China joining the World Trade Organization (WTO).¹⁰

Other Asian countries are also projected to experience structural shifts away from agriculture during this period, with the exception of Thailand, Malaysia, Indonesia, the Philippines, Hong Kong, Singapore and Taiwan which are expected to become more competitive in processed food sector, presumably due to cheaper agricultural imports effected by the Uruguay Round tariff reductions. Australia, New Zealand, Canada, Mexico and the U.S. are the only countries that are likely to experience increases in the relative importance of agriculture in their economies over the period 1992-2005. This is largely due to the process of the Uruguay Round liberalization in other countries and the higher rates of productivity growth in agriculture sector relative to non-agriculture sectors in these economies.

¹⁰ See Hertel, Martin, Yanagishima and Dimaranan (1995) on the case where Chinese quotas were abolished.

There is also a projection of more advanced economies continuing to reallocate the world production of textiles and wearing apparel to the developing economies in Asia during the period 1992-2005. The only exception are China and Taiwan, which do not enjoy this growth in market access because they are assumed to be excluded from the MFA reforms. Instead resources in these countries appear to be diverted to other manufacturing activities such as other light manufacturers, transport equipment and machinery, and other heavy manufacturers.

When changes on the production side discussed above are coupled with changes on the consumption side, regional trade balances by commodity can be calculated as the difference in the trade balance in the year 2005 relative to the year 1992 in billions of 1992 U.S. dollars (see Table 17).¹¹ At -\$4.9 billions, China is projected to be a big net importer of grain in the year 2005. China is expected to be an even bigger net importer of non-grain crops, meat products and processed food. Indeed China is projected to be a net importer of all farm and food products of \$39 billion in the year 2005. The combined trade balance on wearing apparel and textile in China is not expected to increase as much as in other Asia's developing countries during this period. This is because China is assumed to be excluded from the liberalization of wearing apparel and textiles trade initiated under the Uruguay Round. Instead the large increase in farm and food imports in China is expected to lead to an expansion in China's net exports of manufacturing sectors, especially other light manufactures. Economies such as Hong Kong, Singapore, Korea, Taiwan, Japan and Western Europe are projected to produce increased trade deficits with respect to grains and other crops during the period 1992-2005. This increase in trade deficits is expected to be offset by an increase in net exports on these products from countries such as Thailand, Malaysia, Indonesia, the Philippines, Australia, New Zealand, Canada, the U.S, and from the rest of the world.

Table 16 Cumulative Percentage Change in the Composition of Real GDP, 1992-2005

	CHN	ASE	NIEs	JPN	AUS/NZ	NAFTA	WE	ROW
Rice	-44	-29	-39	-22	-9	3	-14	-16
Wheat	-54	-33	-50	-41	2	15	-31	-11
Coarse grains	-46	-24	-79	-57	0	1	-27	-20
Other Crops	-42	-28	-37	-9	-7	13	-13	-9
LProd	-33	-34	-32	-34	2	-2	-14	-2
Pfood	-31	8	5	-13	-11	-7	-15	-7
NRes	18	-38	-1	23	-2	1	-2	-2
Text	-16	95	29	-9	-29	-27	-27	7
WAppr	-6	295	-39	-23	-62	-77	-80	48
Lmnfc	30	-17	15	0	-11	-5	-7	0
TMEq	97	-12	2	1	-8	6	8	-19
HMnfc	38	-12	15	2	-8	-2	-1	-5
Svces	14	0	0	0	2	0	2	2

Notes: a) Modified to Incorporate the Uruguay Round.

b) Livestock products.

Source: Anderson, Dimaranan, Hertel, and Martin (1997).

¹¹ The changes in trade balance for each region sum to zero since in this exercise each region's trade balance are assumed to be constant.

Table 17. Change in Trade Balance by Commodity and Region, 1992-2005
(in Billions of Dollars)

	CHN	ASE	NIEs	JPN	AUS/	NZ	NAFTA	WE	ROW	WORLD
Grains	-4.9	0.3	-5.4	-5.6	0.8		11.4	-3.2	4.5	-2.0
Other Crops	-13.7	-10.7	-8.1	-0.9	1.1		22.4	-2.9	5.5	-7.3
Lprod	-15.6	0.8	-7.1	-10.1	9.3		15.9	-6.7	8.5	-5.1
Pfood	-4.7	38.5	18.5	-14.3	-0.5		-2.8	-42.9	-7.9	-16.1
All Food	38.9	29.0	-2.1	-30.8	10.6	47.0	-55.8	10.6	-30.4	
Nres	-4.5	-7.8	-57.7	23.9	11.4	-5.8	-28.5	102.5	-14.3	
Text	-11.6	-29.4	40.8	4.1	-1.1	-4.5	-17.7	5.8	-13.6	
Wappr	19.5	128.4	2.7	-15.3	-2.5	-71.2	-93.8	14.6	-17.7	
Lmnfc	35.4	3.8	44.4	24.8	-3.9	-41.1	-60.6	-0.5	-21.1	
TMEq	5.3	-57.2	-39.0	41.4	-10.8	0.9	124.0	-91.7	-43.7	
Hmnfc	-1.3	-50.3	7.5	-1.6	-5.4	0.6	24.5	-48.4	-31.5	
Svces	3.8	-16.4	3.4	0.0	1.7	74.1	107.9	7.1	172.3	

Notes: a) Modified to Incorporate the Uruguay Round.

b) Livestock Products.

Source: Anderson, Dimaranan, Hertel, and Martin (1997)

In the processed food sector, Japan and countries in Western Europe are projected to experience large negative trade balances during this period, while countries outside South-east Asia experience small negative trade balances. South-east Asian countries are expected to have a more competitive food processing sector because raw materials in these countries become cheaper due to the tariff cuts agreed under the Uruguay Round. In countries such as Thailand, Malaysia, Indonesia, and the Philippines, this effect is predicted to dominate the negative trade balances in primary agriculture, and the value of total food exports is expected to increase much more rapidly than that of imports over the period 1992-2005. But the largest change in the trade balances in this region is the increase in wearing apparel net exports of \$128 billion over this period following the removal of quotas on clothing exports to countries in North America and Western Europe.

The projection result (modified to incorporate the Uruguay Round) obtained above is based on a number of assumptions. Below we look at the impacts of altering some of the key assumptions in the experimental design on the projection of the world trade patterns for the year 2005. In this regard, two key assumptions are of great interest to us. These are [i] China and Taiwan's exclusion from the WTO, and [ii] the removal of quotas on trade in wearing apparel and textile in the year 2005 under the Uruguay Round. Interestingly, if China should join the WTO, abolishing the trade quotas in these sectors may prove more difficult to materialize. It is therefore useful to analyze the projected world trade patterns when one of the two key assumptions is relaxed.

Joining the WTO,¹² China is projected to experience a large increase in its overall trade volume in the year 2005, with 55 and 40 percent increases respectively in its imports

¹² The offer by China to reduce its protection rates substantially in the event it enters the WTO is documented in Bach, Martin and Stevens (1996). If tariffs are reduced only when the tariff binding offered to the WTO is below the applied rate, China's offer would involve a reduction in the weighted average nominal rate of protection to 16 percent in 1995 (from 30 percent in 1992). This reduction would be followed by a substantial fall in the coverage of non-tariff barriers. The projection exercise discussed here uses the cuts in the trade-weighted bilateral tariffs as reported in Bach (1995). When joining the WTO, Taiwan is assumed to reduce non-agricultural tariffs by 36 percent and agricultural tariffs by 18 percent. Benefits from joining the WTO to China and Taiwan are assumed to include increases in the growth rates of their quotas on exports of textile and wearing apparel to North America and Western Europe under the provisions of the Uruguay Round ATC.

and exports (see Table 19). Imports of most industrial products are also projected to experience a large increase in the year 2005 as protection rates on these goods fall substantially following China's entry into the WTO. Since protection rates in crops sector would be slightly reduced only, imports of wheat and rice in China are projected to fall in the year 2005 as consumers substitute away these goods with the goods which domestic prices fall. Imports of meats and processed foods in China are projected to grow substantially in the year 2005. The net effects of these changes are that international prices are likely to rise by less than 1 percent for most goods, exceptions being textiles and clothing, which prices are likely to fall by 1 to 3 percent as China expands its exports of these labor intensive sectors in which it has a comparative advantage (see Table 18). Following its admission into the WTO, China is projected to expand its exports of wearing apparel and textiles substantially in the year 2005. This is likely to lead to reductions in exports from countries such as Thailand, Malaysia, Indonesia, and the Philippines, where output is expected to fall. Exports of wearing apparel from these countries are expected to be diverted from the MFA markets in North America and Western Europe to the other richer markets in Japan, Australia and New Zealand. China's exports of agricultural products as a whole are projected to experience a substantial decrease in the year 2005, while its export sales in processed food from Hong Kong, Singapore, Korea, Taiwan, Canada, Mexico, the United States and Western European countries are likely to increase.

Canada, Mexico and the United States are projected to increase their exports of livestock products to China in the year 2005 by \$6.8 billion, while Western European countries and the rest of the world are expected to provide an extra \$3.4 billion of these products to China.¹³ The expected increases in the imports of the livestock products to China in these regions are obtained in part by diverting exports from other destinations. This is not the case with countries such as Thailand, Malaysia, Indonesia, and the Philippines, which total volume of exports of farm and food product is projected to rise by almost \$9.3 billion following the assumed reforms that accompany China's admission into the WTO.

**Table 18 Impact of China and Taiwan's Accession to the WTO in the Year 2005
(Percentage Change)**

Commodity	Prices	International Exports
Rice	0.1	0.7
Wheat	0.0	0.1
Coarse grains	0.5	1.1
Other Crops	0.1	2.4
Lprod	0.3	11.6
PFood	0.1	3.7
NRes	0.4	1.0
Text	-1.1	7.8
WAppr	-2.6	8.6
Lmnfc	0.2	4.3
TMEq	0.3	2.8
HMnfc	0.3	1.5
Svces	0.3	2.6

Source: Anderson, Dimaranan, Hertel, and Martin (1997)

¹³ See Anderson, Dimaranan, Hertel and Martin (1996a, Table 14).

**Table 19 Impact of China and Taiwan's Accession to the WTO in the Year 2005
(Percentage Change)**

Region	Trade Volume	
	Exports	Imports
NAFTA	1.6	0.9
WE	1.6	1.0
AUS/NZ	0.8	-0.1
JPN	3.6	2.6
KOR	0.6	0.1
TWN	6.0	7.7
HKG/SGP	1.1	2.8
CHN	39.6	54.8
IDN	-5.9	-9.0
MYS	-0.4	-1.8
PHL	-1.8	-5.5
THA	-0.8	-3.0
IND0	-1.6	-6.2
SU	2.5	1.1
ROW	0.5	-0.3
WORLD	3.0	3.0

Notes: a) Canada, Mexico and the United States. b) Western Europe. c) Australia and New Zealand.
d) Hong Kong and Singapore. e) India. f) Former Soviet Union.

Source: Anderson, Dimaranan, Hertel, and Martin (1997)

Next we turn to the issue of the removing the bilateral quotas associated with the MFA. The elimination of these quotas under the Uruguay Round Agreement will proceed only gradually, with an initial increase in the growth rates of MFA quotas during the 10 year period through the year of 2005, accompanied by a progressive integration of textile and clothing items into the GATT system; at this point the quotas would be eliminated altogether. The degree of quota acceleration under the Agreement on Textiles and Clothing (ATC) is unlikely to be sufficient for the purpose of reducing the quota rents for the majority of the bilateral flows.¹⁴ In this case, a complete and timely elimination of the quotas appears difficult to materialize; this is especially true if China is admitted to the WTO and, as a result, obtains an improved market access.¹⁵

Even if the growth rates of the ATC quota are abide, quota rents are likely to increase over the period 1995-2005 for the majority of the bilateral flows.¹⁶ Therefore it is not unreasonable to assume that the MFA quotas will return to its level for the year 1992. Under this scenario (see Table 20), the world trade in textiles and wearing apparel is projected to fall by 12 and 31 percent respectively in the year 2005. This reduction is expected lead to a two percent reduction in the total world trade. Countries such as Indonesia, India and the Philippines are likely to suffer the most from this reduction. The reduction in their export activity is also projected to lead to a fall in their import activity

¹⁴ See Hertel, Martin, Yanagishima and Dimaranan (1996).

¹⁵ If the MFA is not completely removed, the export activities for the high performing East-Asian countries are likely to suffer. This would hamper their ability to finance imports (such as agricultural products) from more advanced economies. Within the region, the inability to completely abolish the MFA would weaken their incentives to shift away from agriculture into industry. Thus failure to fully eliminate the trade-restricting effects of the MFA is expected to lead to a higher level of agricultural output and a lower level of food imports in Asia.

¹⁶ See Hertel, Martin, Yanagishima and Dimaranan (1995).

(since the trade balance is held fixed in the projection). Indeed the total imports in Indonesia, India and the Philippines are predicted to fall by 16, 7 and 3 percent respectively in the year 2005 (see Table 21).

Table 20 Impact of Incomplete Liberalization in Textile and Clothing in the Year 2005 (Percentage Change)

Commodity	International	
	Prices	Exports
Rice	-1.6	0.8
Wheat	-1.3	-1.2
Coarse grains	-1.3	-0.3
Other Crops	-1.4	-2.3
LProd	-0.9	-1.8
PFood	-0.9	0.8
NRes	-0.8	0.0
Text	2.3	-11.9
WAppr	11.0	-30.7
Lmnfc	-0.8	1.4
TMEq	-0.8	0.2
HMnfc	-0.8	-0.2
Svces	-0.7	-1.4

Source: Anderson, Dimaranan, Hertel, and Martin (1997)

Table 21 Impact of Incomplete Liberalization in Textile and Clothing in the Year 2005 (Percentage Change)

Region	Trade Volume	
	Exports	Imports
NAFTA	-2.2	-3.7
WE	-1.6	-3.2
AUS/NZ	-0.1	-0.2
JPN	0.3	0.3
KOR	-1.0	-0.6
TWN	-0.5	-0.4
HKG/SGP	0.1	0.9
CHN	-8.4	-3.1
IDN	-19.7	-15.8
MYS	-2.4	-1.3
PHL	-8.0	-3.4
THA	-4.3	-1.4
IND	-12.9	-6.7
SU	0.2	0.2
ROW	0.4	-0.9
WORLD	-2.0	-2.0

Notes: a: Canada, Mexico and the United States. b: Western Europe. c: Australia and New Zealand. d: Hong Kong and Singapore. e: India. f: Former Soviet Union.

Source: Anderson, Dimaranan, Hertel, and Martin (1997)

The reduction in the global import activity is also projected to cause the volume of exports in Canada, Mexico and the United States to Thailand, Malaysia, Indonesia, and the Philippines to fall by \$733 million for crop products, \$217 million for processed foods, and \$47 million for livestock products in the year 2005 (see Table 21). At the same time, the fall in exports of textiles and wearing apparel from Thailand, Malaysia, Indonesia, and the Philippines is expected to lead to an increase in exports of their farms and food products, mainly to the MFA importing countries. Lastly food exports from Thailand, Malaysia, Indonesia, and the Philippines are projected to increase by \$9.5 billion per year. The above result indicates that the early projected shift of resources away from the agriculture sector is likely to be dampened by the failure to reform the MFA fully and in a timely fashion. Consequently the bilateral trade balance in the food sector (at 1992 prices) between the NAFTA countries such as Canada, Mexico and the United States, and the South-east Asian countries such as Thailand, Malaysia, Indonesia, and the Philippines is likely to deteriorate by about \$2.4 billion in the year 2005, and food exports from Canada, Mexico and the United States are projected to fall by \$5.6 billion per year.¹⁷

3. Trade and competition

Trade and competition policies share the objective of achieving efficient allocation of resources, with the former taking place across countries and the latter occurring within each country. Yet the promotion by trade policies of market access and fair trade is often seen to be incompatible with the competition policy designed for efficiency in cases where managed trade is used to gain market access, or where remedies are instituted to protect domestic producers against unfair trade. Tensions between trade and competition policies may also mount simply because competition law and market regulation are created largely for domestic need. This section reviews some of the main elements of the problem, focussing on the interactions and frictions between trade and competition policies.¹⁸

In recent years international tensions arising from non-border barriers to trade and border barriers to competition have become much more visible. The relative incidence of such barriers has sprung up because of the progress made in reducing traditionally border barriers, more recently in the Uruguay Round. Obstacles to foreign firms and foreign investment have inevitably taken a more prominent stand as national economies become more integrated.¹⁹ However to this date, relatively little has been done to deal with these barriers in the context of international policy. As mentioned earlier, competition policies are usually governed by domestic laws and institutions, and they tend to lack multilateral procedures for enforcement and dispute settlement. As such, international cooperation in competition policies usually has no legal context. Instead they tend to be limited to

¹⁷ See Anderson, Dimaranan, Hertel and Martin (1996a, Table 15).

¹⁸ The review in this section is built on numerous work undertaken at the OECD, such as Feketekuty (1996), Fox (1995), Goldfarb (1995), Graeme (1995), Hawk (1996), Janow (1996), Kael, Ireland, and Sadeque (1995), OECD (1994a,b, 1995, 1996a,b), Willig (1996), and Witherell (1995).

¹⁹ There has been a rapid growth in the world investment income flows and other services, the former from 7.9 percent of the world exports in 1975 to 15.2 percent in 1993, and the latter from 16.6 percent of the world exports in 1975 to 18.6 percent in 1993. There has been also a sharp increase in foreign direct investment (FDI), with the FDI outflows of 0.8 average annual growth rate over the period 1981-1985 to 5.6 average annual growth rate over the period 1991-1993, and with FDI outward stock of 5.4 average annual growth rate over the period 1981-1985 to 7.2 average annual growth rate over the period 1991-1993. Changes in composition towards services have also experienced a sharp increase over the period 1984-1993.

recommendations and bilateral agreements for the purpose of information exchange.²⁰ Unlike the regional arrangements, the Uruguay Round did not contain a mandate for work on trade and competition. However it extended the scope of rules in a number of important areas, notably in government procurement, subsidies, intellectual property rights, technical regulations and standards, trade in services (see also section 6) and discriminatory trade-related investment measures.

There is a number of trade-policy instruments that is capable of stifling competition,²¹ often at a substantial cost in terms of economic efficiency and welfare.²² Yet in practice we often see these instruments being used by countries, claiming that they are needed to raise revenues, to reduce the social costs of structural adjustment, to protect public safety and health, to defend national security interests, to protect certain industries or interest group from intense foreign competition, and so on. Some instruments such as countervailing duties are created specifically to counter unfair practices by trading countries, including dumping or subsidization. Efficiency can be gained by reducing such unfair practices. However countervailing duties and anti dumping measures are prone to abuse for protectionist purposes.

Prior to the Uruguay Round, there was a widespread of abuses of anti-dumping measures. The most common abuses were in the calculation of dumping margins by using asymmetrical or unfair price comparisons and by using arbitrary exchange rates and minimum profit rates. The Uruguay Round managed to tighten the rules by introducing a number of measures. Member countries are required to clarify the investigation processes and methods for calculating margins; they must provide a better distinction between actionable and nonactionable subsidies;²³ and lastly they must include disciplines for the extension and refund of duties and the creation of a sunset clause. Despite these measures, it is still possible to this date for some countries to use anti-dumping procedures for their protectionist purposes.²⁴

According to GATT, over the period July 1985-June 1994, the United States investigated 450 antidumping cases, while Australia, the EU, and Canada dealt with 428, 240, and 203 cases respectively. Over the same period, there were 270 anti-dumping cases being investigated in all the other countries together. Duties were levied in 70 to 80 percent of cases for the United States and the EU²⁵. Currently a large number of anti-dumping cases remain to be resolved, and since the mid 1980s the correlation between the number of cases investigated and real GDP growth has become significantly more negative.

²⁰ Multilateral competition agreements include the European Union (EU), the North Atlantic Free Trade (NAFTA) and the Australia-New Zealand Closer Economic Relation Trade Agreement (ANZCERTA). The EU is the only arrangement for a supranational competition authority. See European Commission (1995) and Graeme (1995) on this issue. Both UNCTAD and OECD have attempted to develop rules for the conduct of multinational enterprises. These rules are voluntary in nature and are contained in the OECD 1976 Guideline for Multilateral Enterprises, and the 1980 UNCTAD Restrictive Business Practices Code.

²¹ These include tariffs and a number of non-tariff barriers such as export restraint arrangements (such as VERs), orderly marketing arrangements, export forecasts, basic-price systems industry-to-industry arrangements, discriminatory import systems and prior import surveillance.

²² See Baldwin (1970), Bhagwati (1971), Corden (1974), and Sodersten and Vin (1968) for reviews on this issue.

²³ In the years preceding the completion of the Uruguay Round, the United States had been the largest user of countervailing actions, with 42 actions initiated over one year period from July 1993 to June 1994, mostly in steel products. This is followed by Australia who initiated 12 actions during that period.

²⁴ See Nagaoka (1995) on how some countries managed to continue to abuse anti-dumping processes in the post Uruguay Round.

²⁵ See MITI (1995).

Next we discuss some of the ways in which competition policies may restrict trade, and the related implications of restrictive government regulations, subsidies and procurement policies. In service sectors such regulations turn out to be the most significant barrier to international competition (see also section 6). International competition laws have tended to ignore issues associated with spill-overs, in particular in the case of export and import cartels. Some export cartels attempt to improve competition by allowing smaller exporting firms to achieve economies of scale in distribution and information exchange, or by enabling those firms to countervail the purchasing power of foreign cartels. Similarly import cartels also allow smaller firms to share costs or enjoy economies of scale from discounts and rebates. At the same time both export and import cartels produce anti-competitive measures simply by controlling a large portion of the market.²⁶ Export cartels, which are directed at foreign markets, appear to enjoy a great deal of freedom from the enactment of competition laws, while cartels, which are directed both at domestic and export markets, tend to receive exemptions. In Japan, Germany, the United Kingdom, France, the Netherlands and the EU, these cartels fall outside the jurisdiction of anti-trust law. The United States and Canada also exempt such cartels, although in the United States, the application of the law by registering agreements is more forthcoming, and in Canada, agreements that tend to impede exports are simply prohibited altogether. Finally export cartels formed by foreign suppliers are usually subject to competition laws of the importing country, even though applications of such laws to them often encounter procedural and practical obstacles which limit any effective enforcement. Import cartels are also covered by the competition laws of the importing country. The laws are especially enforced if importers are faced with dominant foreign suppliers, and if competition in domestic markets is significantly restrained. Some exporting countries have tended to apply their competition laws to activities which restrict access to foreign market (albeit with some difficulty)²⁷ because of the perceived inadequacy of enforcement of the competition laws by the importing countries.

Another way in which trade can be restricted by the competition laws is through exemptions. Exemptions for government enterprises and regulated private businesses from anti-trust legislation and liability may contribute substantially to the preservation of anticompetitive structures and practices that tend to discriminate against potential entrants (i.e. foreign firms). Exemptions are prevalent in sectors that are subject to other government regulations. The sectors that are least covered by competition laws include agriculture, fishing and forestry, energy and utilities, transportation, and postal services. It is also common to exempt sectors such as defence, communications, financial and insurance services, media and publishing. In some countries, distribution and certain manufacturing sectors are also excluded.

The extent of exemptions varies widely across countries. This is not surprising since some countries tend to rely less on legislative exemptions and more on the less obvious instrument of administrative enforcement. In a study of eleven jurisdictions (namely the United States, Japan, Germany, France, the United Kingdom, Canada, the European Union countries, Hungary, Mexico, Portugal and Sweden), exemptions were found to be most prevalent in Japan, and to a lesser degree in the United States, Germany and the United Kingdom.²⁸

²⁶ See OECD (1993) on a detailed discussion of this issue.

²⁷ See Matsushita (1996) for a review of a number of such cases.

²⁸ See Hawk (1996) for a detailed analysis of exemptions across countries.

Another form of exemptions which allow for specific business arrangements and practices has the capacity of putting up a substantial impediment to international market access.²⁹ This form of exemptions includes horizontal arrangements, such as group boycotts, discriminatory product standards and pricing, and collective exclusive dealings, vertical restraints such as exclusive dealings and territories, and single firm behavior such as predatory pricing, price discrimination and fidelity rebates. Competition laws generally are very strict with regard to horizontal arrangements, which are deemed to be the most undesirable form of exemptions. In spite of this, specific arrangements, such as joint R&D undertakings, public interest cartels, specialization arrangements, and crises cartels, are exempted from anti-trust law, and as a result, such arrangements potentially can discriminate against foreign competitors. The impacts of vertical restraints and single firm behavior are much less clear cut. For instance although exclusive dealing arrangements can hinder market access, they also can enhance efficiency and strengthen competition. Similarly, aggressive pricing may not be indicative of predatory behavior, but active competition. Therefore it would not be regarded as a potential threat to competition if markets are indeed contestable.

Other forms of trade restrictions include merger control and regulations. Merger control is originally intended to prevent any abuse of dominance. However it has also been used to screen foreign investments on purely noncompetitive grounds, even though such an activity has greatly diminished in recent years. Regulations have the potential to discriminate against foreign and foreign owned producers, by favoring existing firms and preventing new firms from entering. For example regulations of network-based services (such as utilities, tele- and postal communications, railways and air transport) in many OECD countries extend monopoly rights beyond the network to activities prone to competition. Domestic incumbents in many cases are also protected by concessions and cumbersome licensing processes (notably in professional services, health care, transportation and communication), zoning laws and regulations for large-scale stores (hindering access to distribution systems), price regulations (such as freight and passenger rates in transport and fees in professional services), and standards and technical regulations that are difficult to be met by new entrants, and especially foreigners (in the construction industry). In some service sectors, government regulations and practices often discriminate openly against foreign producers. These regulations and practices include placing restrictions on FDI (which make it difficult to establish distribution outlets), access to networks, and the granting of licenses and ownership to foreigners. Common discriminatory practices include non-market allocation of landing and take-off slots in international airports, restrictions that prevent electricity consumers from choosing foreign power suppliers, foreign ownership and access to networks in telecommunication services, unwillingness to recognize technical standards in trading countries, procurement practices which favor domestic supplier, and discriminatory R&D funding.

However much of the discussion on market access centers on enforcement of competition laws. The lack of enforcement for instance was a key issue in the United States/Japan Structural Impediments Initiative (SII) in 1989, and the recent complaint by Eastman Kodak under Section 301 of the United States Trade Act. In practice two crude indicators on the actual enforcements of competition laws have been used. These are [i] the staffing level of enforcement agencies, relative to the size of the economy; and [ii] the level

²⁹ This has been documented by a number of authors, including Goldfarb (1995), Kaell, Ireland, and Sadeque (1995), and Ostry (1995).

of fines imposed for violating competition laws. Using the first indicator, we can conclude that there is little scope for enforcement in Italy and Switzerland (until 1990) and relatively large scope of enforcement in the United States and the Nordic countries. Using the second indicator, we can say that there is practically no sanctions in the Nordic countries and heavy penalties in the United States, Germany and more recently Japan.

Lastly, we turn to the issues associated with market access in some non-OECD countries, such as countries in South and East Asia, and Central and South America. As we have seen, many of these countries have experienced substantial integration into the global economy with both trade and FDI growing rapidly; and yet in many of these countries, the barriers to entry and the degree of regulation remain higher than in the OECD countries, albeit to a lesser degree in more recent years. Since the mid 1980s, tariff structures in many dynamic non-OECD countries have been simplified, and their tariff lines have been reduced or bound, as part of wide ranging reforms. These countries also have reduced the coverage of non-tariff barriers, such as quantitative restrictions and prohibition. In Central and South America, export taxes are either reduced or eliminated all together. To date it is still common in Central and South America and East Asia to implement quantitative restrictions via import licensing and/or import clearance systems. In fact, some of these countries still maintain lists of prohibited manufactured imports. Also, as in many OECD countries, the reduction of traditional trade barriers in these countries has been met with pressures to opt for alternative steps to protect affected import-competing producers. These steps include the re-activation of anti-dumping and/or countervailing duty statutes in many non-OECD countries,³⁰ the creation of regulations to protect safety and health associated with trade in food and agricultural products, and the creation of programs to promote exports. In the case of trade in services, most emerging economies in East Asia and Central and South America continue to practice discriminatory restrictions on the insurance industry, banking services, professional services and telecommunications, and many of the countries in these regions also maintain restrictions in wholesale and retail distribution.

In spite of the rapid growth in FDI, many dynamic economies in East Asia and Central and North America (except Hong Kong) continue to maintain numerous trade restrictions, such as traditional local-content requirements in investment and other trade-related investment measures. In most case, these protection measures are taken in conjunction with a number of incentive mechanisms, such as subsidies and tax concessions, with the intention of channeling foreign investment to a few selected sectors. While it is certainly the case that the emergence of regional arrangements such as AFTA in East Asia, and MERCOSUR and Andean Pact in Central and South America has greatly encouraged pro-competitive practices in these regions, there is still no clear picture emerging with respect to competition laws. In some Asian countries competition laws were enacted in the 1970, whereas in other Asian countries, such as Indonesia, Malaysia and Singapore there are no laws or regulations pertaining to competition.³¹ In the early 1960s, many Central and South American countries enacted competition laws in their countries, and in some countries such as Brazil, Chile and Columbia, these laws have been revised recently, while in Argentina, they are currently being revised.

In summary, despite the progress made in this area, much remains to be done to improve both domestic and international policies in order to strengthen the world trading

³⁰ See Khemani (1996), Finger (1993), and Low and Subramanian (1993) for evidence of these protective measures in many non-OECD countries.

³¹ See Green (1996).

system and encourage global competition. Specific reforms may be undertaken to strengthen domestic competition laws and enlarging their scope; the latter can be done by improving conditions for competition and market access in currently much regulated market (such as the service sectors). Reform can also involve making effort to strengthen international agreements to prevent abuse of countervailing trade measures. Lastly reform can be launched to increase the scope of international competition arrangements and foster the convergence of competition principles and mutual recognition of standards in regulated sectors. It is our conjecture that in the future increased anti-trust cooperation at the international level is likely to serve as a basis for forming multilateral agreements on competition policy. Such agreements will be motivated by the high standards of the national treatment, MFN and transparency clauses of the Multilateral Agreement on Investment (MAI).³² Finally it is important to stress that the issues on trade and competition are not confined only to OECD countries. Non-OECD countries face greater impediment to market access (to both trade and FDI) than OECD countries. This suggests that non-OECD countries should be encouraged to take an active part in the process of regulatory reform and international agreements on trade, competition and other regulatory matters.

4. Trade and labor standards

Although the interaction of labor standards and international trade policy has been discussed in public forums many times before, it recently assumed a new prominence because of the view held by labor interests that issues of unfair labor practices and conditions have been ignored in regional and multilateral trade negotiations. For instance, lax enforcement of labor standards in Mexico was identified as an issue when the NAFTA was being negotiated. Efforts were also made, albeit in vein, at the December 1996 WTO Ministerial Meeting in Singapore to extend the WTO to include rules governing trade related labor standards.

The main concern of labor interests is that the increased imports from countries in which labor standards are neglected at a sufficiently high level may have an adverse effect on wages and working conditions in industrialized countries. This section explores a wide range of views on issues of international labor standards and the available options for addressing the issues. In particular we will summarize the available empirical evidence on trade and labor standards, and discuss the monitoring and enforcement of labor standards.

The available empirical studies on labor standards and trade indicate that there is no strong evidence that international differences in labor standards have any significant impact on existing patterns of trade.³³ Also contrary to the popular view that multinational firms have the incentive to locate in countries with lower labor standards in order to take advantage of lower cost, the empirical evidence to this date suggests the opposite to be the case, namely flows of FDI respond to high rather than low labor standards.³⁴

The conventional view of international labor standard is that inadequate labor standards may reflect policy distortions and protectionist pressure. However the available empirical evidence in support of this view appears inconclusive.³⁵ Furthermore there are

³² See OECD (1996a), Witherell (1995, 1996) for a detailed discussion on the MAI.

³³ See Rodrik (1996), Aggarwal (1995) and OECD (1996).

³⁴ See Rodrik (1996), Aggarwal (1995) and OECD (1996).

³⁵ See Kruger (1997), Freeman (1993, 1994a,b).

potential justifications for interventions involving labor standards that enhance efficiency and equity of labor market institutions in ways that are not adequately reflected in the distortions framework.

While there is a scope for differing views on these issues, the evidence assembled to date does not appear to support the view that international labor standards should be mandated and enforced.³⁶ Despite this conclusion, it is important to consider the alternative arrangements that exist in the world for their monitoring and enforcement, since issues of labor standards is expected to continue to occupy a prominent place in the policy debates for some time to come.

Presently labor standards are being dealt with in global, regional, national or unilateral, and other arrangements. The main international body that is concerned with labor standards resides with the International Labour Organization (ILO). ILO so-called, "core" labor standards include prohibition of forced labor (Conventions 29 and 105), freedom of association, and the right to organize and bargain collectively (Conventions 87 and 98), minimum age for employment of children (Convention 138), and nondiscrimination in employment (Convention 111).³⁷ It should be pointed out that formal ratification of ILO conventions differs substantially among member countries, presumably because certain Convention is deemed to be inconsistent with national laws and institutional practices.³⁸ Moreover there are many cases in which ratified Conventions are not enforced.³⁹ Therefore ratification of ILO Conventions may not be an accurate indicator of existing national regulations governing labor standard. In spite of this, issues of labor standards should be left to the ILO, and should not be mandated to other international organizations such as the GATT/WTO, which has been designed specifically to articulate, monitor and enforce the rules governing the international trading system⁴⁰.

While arguments have been made on several fronts to support the inclusion of labor standards in multilateral trade arrangements,⁴¹ these arguments tend to stand only on political or pragmatic grounds. There remains an important question of whether or how labor standards should be dealt with in the WTO multilateral context. It is well known that the welfare gains from trade liberalization has long been a salient feature of nondiscrimination in the GATT system. It would be a major departure from this established practice if countries with allegedly low labor standards were to be denied improved market

³⁶ There obviously is a sharp difference in view between most advocates of labor standards and trade (and most other) economists. Labor advocates tend to see the world in terms of a struggle between capital and labor for the rewards from production, without much regard to the size of the output that they will have to share. Trade economists tend to see the world in terms of how resources are allocated to production with a view to maximizing the total output. Thus it is not surprising that labor advocates favor the use of intervention to tilt the balance of power in favor of labor, so that workers will get a larger share of a fixed pie, while trade economists see the same policy as shrinking the pie, and altering the slices by changing the markets within which scarcity determines the rewards to capital and labor.

³⁷ OECD (1996, p.26, 31-34).

³⁸ Rodrick (1996) notes that the United States has ratified only 11 ILO conventions, while several industrialized and developing countries have ratified a significantly larger number of Conventions

³⁹ See OECD (1996, p.39-70) for a detailed discussion of the observance of core labor standards in 75 selected countries).

⁴⁰ See Srinivasan (1995,1997) on arguments in favor of this view. Similar views are expressed by Bhagwati (1995), Charnovitz (1995), and Pangestu (1996).

⁴¹ See Freeman (1994a) and Krueger (1997) on this view. See also Rodrik (1996) for using the Uruguay Round safeguard procedures for investigating complaints arising from imports from countries with unacceptable labor standards, and see Srinivasan (1996, 1997) and Anderson (1996) for the opposing view.

access on these grounds. For all practical purposes, the attempt by the United States (with the support from France, Southern EU members, Canada and Japan) to add the issues of labor standards to the agenda for the WTO Ministerial Meeting held in Singapore in December 1996 was unsuccessful. In spite of this, it seems unlikely that the link between trade and labor standards will disappear altogether from the public discourse any time soon.

The EU has focused its attention on issues of worker rights because of the concerns over low-wage competition from some EU member countries as well as persistent unemployment and wage stagnation. In 1988, a Community Charter of Fundamental Social Right for workers, which includes the core labor standards discussed earlier as well as, “other” labor standards,⁴² was drafted and adopted by all EU members except the United Kingdom. The Social Charter was subsequently approved by 11 EU members, but on a voluntary basis and not as part of the Maastricht Treaty.⁴³ However harmonization of social policies was not viewed as a pre-requisite for successful trade liberalization and integration in Europe.⁴⁴

After the NAFTA was signed by its member countries in the summer of 1992, the United States introduced a separate agreement covering labor issues as well as an agreement covering environmental issues.⁴⁵ As the establishment of an institutional framework following the implementation of NAFTA in January 1994 necessarily took time, there has been very few experience to date in administering the labor side agreement. As of March 1997, the United States National Administrative Office has acknowledged the receipt of six submission alleging non-compliance by Mexico with its labor laws, in particular with freedom of association being denied to Mexican workers. Whereas Mexico has received on submission about U.S. noncompliance with its labor laws, concerning the closure of a subsidiary of the Sprint Corporation in San Francisco.

The NAFTA labor side agreement goes beyond core labor standards and puts strong emphasis on the observance of the existing national laws governing labor standards in the NAFTA member countries, and not on the intercountry harmonization of these laws that was advocated by the supporters of labor standards. Moreover, not all standards on this labor side agreement are subject to sanctions, and those that are subject to sanctions, such as child labor, minimum employment standards, and occupational safety and health, are in fact the very standards that have pushed these issues to the forefront of global policy agendas.

Since the 1980s it has become increasingly common for the United States to include international labor standards in its foreign economic legislation, which can be regarded as a form of national or unilateral arrangement. These standards include freedom of association, the right to organize and bargain collectively, freedom from forced labor, a minimum age for employment, and acceptable conditions of work such as a minimum wage, limitation on hours of work, and occupational safety and health rights in the work place.⁴⁶ The most

⁴² Other labor standards are the standards that may not enjoy universal acceptance and usually relate to “acceptable working conditions” which include a minimum wage, limitations on hours of work; and occupational safety and health in the workplace.

⁴³ The full text of the Charter of Fundamental Social Rights is contained in Commission of the European Communities (1990), and their highlights are summarized in De Boer and Winham (1993).

⁴⁴ See Sapir (1955a) for the discussion of this issue. Also see OECD (1994) on “Labour Standards and Economic Integration” for the extent of convergence between the EU and the European Free Trade Area (AFTA) on labor standards.

⁴⁵ See Aggarwal (1995) for the detail of this agreement. See also OECD (1996).

⁴⁶ See Brown, Deardorff, and Stern (1996) on this issue.

significant arrangements of this type have been the creation of eligibility for trade preferences in the 1993 Caribbean Basin Economic Recovery Act and the 1994 renewal of the Generalized System of Preference (GSP), and the foreign denial of worker rights actionable under Section 301 of the 1988 Trade Act.

The 1988 Trade Act also expanded the requirements of the Department of State and Labor to submit periodic reports to Congress on human rights violations and foreign adherence to internationally recognized worker rights. The striking feature of the 1994 renewal of the GSP is that the stipulations on labor standards were made mandatory. In fact GSP eligibility is known to have been revoked for a number of developing countries until they stop the offense. The United States experience with the GSP has led the EU to adopt similar labor standards criteria for its GSP program which is expected to be in effect in 1998. However there is not much evidence to date that actual or threatened withdrawal of GSP has had much impact on the labor standards in developing countries.

There are a number of other arrangements that are worth mentioning. The OECD, ILO, UNICEF, and other UN agencies have been promoting cooperative programs of economic development. In these programs, practical steps (often supported by multi- and bi-lateral financial assistance) can be taken to deal with the underlying causes of poverty in poor countries reflected in the employment of children and lax enforcement of core labor standards. Both the OECD and ILO also have developed international codes of conduct applied to multinational enterprises (MNEs) which can help to improve labor standards and working conditions in the MNEs affiliates in some of the host developing countries.

Lastly, one important way in which labor standards can be improved is through consumer labeling when the standards can be treated as private goods. Labeling provides information about production processes used and allows consumers to reflect the satisfaction derived from the presumption of higher labor standards internationally in their consumption choice.⁴⁷ When labor standards are viewed as public goods, there is an obvious case for government policies. The advantage of this type of arrangement in the international context is that actions can be taken without the need to influence other governments to change their domestic labor-market policies.

In this section we have examined critically whether international labor standards should be incorporated in the rules and mandate of the WTO which oversees the international trading system. At first sight it seems sensible to suggest that WTO rules and disciplines be revised to improve core labor standards in low-income countries, and at the same time, to prevent high-income countries from abusing their economic power in implementing steps that could would be undesirable in terms of cost of competitiveness and welfare of low-income countries. However the diversity of labor standards in countries with different national characteristics, institutions, and policies raises serious doubt on its potential success. Moreover the brief review on the empirical literature on trade and labor standards did not support the notion of international enforcement and harmonization of labor standards.

Given the above conclusion, we are left with the question of what should be done with the issues of labor standards in multilateral arrangements. To date there is overwhelming evidence that labor standards in a country are positively associated with its

⁴⁷ An example of this is the Child Labor Coalition which sponsors the Rugmark campaign. The Rugmark campaign provides producers with a certifying label that they can attach to their exports indicating their non-employment of child labor. See Aggarwal (1995). Also voluntary codes of conduct in the apparel industry have become increasingly common since the early 1990. See U.S. Department of Labor (1996).

level of economic development and per capita income. This evidence, taken at its value, indicates that it is desirable to form policies to provide technical and financial assistance to low-income countries in order to promote economic progress and hence higher labor standards in these countries. Since issues of international labor standards have always resided with the ILO, and in the light of the evidence cited above, it is natural to conclude that with sufficient support (in particular financial support), the ILO is likely to be able to provide a multilateral forum that would strengthen its role and authority in pursuing improved labor standards in the global context.⁴⁸

If the ILO is given the tasks of monitoring and assisting developing countries to improve their labor standards, then there is no longer a compelling reason to be made for high-income countries (such as the United States and the EU member countries) to include issues of labor standards in their national or unilateral trade arrangements. The review of the empirical evidence on labor standards and trade performance led us to refute the notion that low foreign labor standards have adverse effects on firms and workers in high-income countries. Moreover evidence suggests that FDIs are more attracted to countries with high (and not low) labor standards. Taken these results together with the evidence of positive correlation between labor standards and level of per capita income suggests that higher labor standards are likely to be achieved if high-income countries are willing to adopt policies that are directed at maintaining open markets and encouraging the economic growth of their developing-country trading partners, as well policies in supporting the institutional role for which the ILO has been designed.

5. Trade and environmental standards

When discussing environmental issues in the international context, it is important to distinguish between environmental issues that are domestic in nature, and those that are international in nature because they are likely to involve transborder spillovers.⁴⁹ Domestic environmental issues often arise because there are some type of domestic market failure associated with the behavior of producers and/or consumers who fail to internalize the social costs of their actions. The externality in this case could be dealt with in principle by means of a Coasian-style negotiation between the parties involved, provided that the parties involved are of a limited number only. Thus it is optimal for governments to levy a tax, especially on production and/or consumption activity that is generating the negative externality, in order to make up for the difference between private and social costs. However it is not optimal for the same governments to impose taxes on trade since trade is not the source of externality in this case.

In the case of transboundary or global environmental issues, similar argument would seem to apply and international environmental issues of this nature could also be addressed by collective negotiations among the countries involved. If such a method is not feasible, national governments can opt for a tax directly on domestic production and/or consumption activities, which are generating the externality.

It is obvious that the importance of environmental issues and policies used to cope with these issues will tend to vary across countries, depending on the stage of development, per capita income, and cultural, social and political conditions in the countries involved. It is

⁴⁸ See Charnovitz (1995) for arguments to reinvigorate the ILO.

⁴⁹ See Bhagwati and Srinivasan (1996) for a more detailed discussion on this analytical distinction.

now known that countries with high levels of income have a greater tendency (than countries with low levels of income) to institute policies to deal with domestic environmental issues. The case with transboundary environmental issues is more complicated as it requires co-operation from other trading countries. In particular there are problems of free riding and there are clear differences between high- and low-income countries in their recognition of how important are the environmental issues and how the costs of alleviating the problems should be shared by countries involved.⁵⁰

The claim on the alleged adverse effects of trade and investment on the environment has not been borne out by the available empirical evidence.⁵¹ There also is a good reason to believe that, as in the case of labor standards reviewed in the previous section, international differences in environmental standards are unlikely to have important impacts on existing trade patterns or on the location of choices of investment. Therefore it does not seem warranted to argue that harmonization of environmental standards across countries be mandated and enforced.

The normative argument aside there is a practical need to address transborder and global environmental issues since these issues require intercountry co-operation to deal with the externalities involved. Also in reality the linkage between trade and environment has entered the global trading system, with the implicit endorsement by countries in the 1994 ministerial meeting in Marrakesh that concluded the Uruguay Round. In any case we expect issues of environmental standards to continue to occupy a prominent place in the global policy agenda for some time to come. Therefore despite the normative argument outlined above, it is important to consider alternative arrangements that exist for monitoring and enforcement of these standards at the national, regional and multilateral levels.⁵²

In the case of national environmental arrangement, the United States and the European Union have implemented environmental policies unilaterally on an extra-territorial basis.⁵³ There are also other arrangements and organizations that exist to deal with environmental issues. These include the activities of the United Nations Environmental Program (UNEP), the OECD, and the World Bank as well as a number of private environmental research organizations, advocacy groups, and private firms.

At the regional level, the European Union has addressed a number of environmental issues when member countries formed the trading block.⁵⁴ The European Union has also been involved in a number of multilateral environment arrangements and in ongoing meetings held under the auspices of the WTO and other international bodies that deal with environmental issues. As the institutions of the European Union extend directly into the domestic policies for the member countries, the enforcement pressures and remedies available for environmental problems are more direct and need not involve trade policies. However, issues related to the interaction between trade and environment are not visible within the European Union.

⁵⁰ See Anderson (1996) on the complexity of the transboundary environmental problems.

⁵¹ See Anderson (1996) for a complete review of the evidence on the economic effects of environmental standards.

⁵² The review on the linkage between trade and environment draws from a number of studies, including Beghin, Holst, and Van Der Mensbrugghe (1994), Dean (1992), Runge (1994), Shrybman (1989, 1990), Uimonen (1995), Uimonen and Whalley (1996), Ulph (1994), Whalley (1991, 1994, 1996), and Woolcock (1996).

⁵³ See Esty (1994) on the United States case, and Abraham, Deketelaere, and Stuyck (1995) for the EU case.

⁵⁴ See Swann (1995) for a summary of EU environmental arrangements.

In the NAFTA regional arrangement, a variety of programs have been instituted, including environmental conservation; protecting human health and the environment; environment, trade and economy; enforcement co-operation and environmental laws; information and public outreach, and public participation.⁵⁵ Certainly the NAFTA and Environmental Side Agreement represent major accomplishments in attempting to deal with linkages between trade/investment and the environment. However there remains a question whether or not there has been a strengthening of environmental protection in the NAFTA countries as a result of the arrangement.

At the multilateral level, the environmental issues are not explicitly mentioned in the GATT articles of agreement, except GATT article XX (sections b and g). However in recent years within the GATT/WTO, concerns about the trade and environment standards have become increasingly more vocal. A key event that brought the issue to prominence was the report of the 1991 GATT panel requested by Mexico in response to the United States trade actions based on the practices of tuna fishermen off the Mexico west coast. The request for a panel by Mexico and the subsequent panel decision in Mexico's favor received widespread attention because it was the first time that a GATT panel was asked to rule on a trade and environment issue. Following the panel report in favor of Mexico, GATT's position on trade and environment came under intense scrutiny by environment groups and others, including the U.S Congress. The environmental content of GATT was criticized as vague and in need of clarification. This criticism found its roots in the extremely limited environmental content of the Uruguay Round decision (reflecting the 1986 negotiating mandate) and in the absence of any reference to the environment in the founding charter of the WTO.

Events such as the Earth Summit at Rio in 1992, the oppositions of environmental groups to the NAFTA, etc. all contributed to the increased profile of trade and environment issue in the mid and to the later parts of the Uruguay Round. In spite of this, the decisions reached under the Uruguay Round did not deal directly with trade and environment issues since they were not formally part of the negotiating mandates. Also unsuccessful effort to convince the WTO to adhere to future environmental objectives was seen as a major setback by environmental groups. However post Uruguay Round, trade and environment issues increasingly have assumed a role in defining the work program for the WTO. It should also be pointed out that many Uruguay Round decisions entailed environmental implications. For instance the Uruguay Round produced agreements which discipline the trade restricting effects of standards and regulations, that have environmental implications. It also produced the agreements on subsidies, countervailing duties and intellectual property rights all of which have some implications for environmental concerns. One example where the Uruguay Round's decisions bear environmental implications is the sanitary and phyto-sanitary and technical barriers to trade (TTB) agreements. The objective of these agreements is to minimize the extent to which standards and regulations can have adverse effects on trade, or act as disguised trade barriers, while still allowing GATT member countries to adopt or maintain standards that are necessary for the protection of human, plant and animal life and health. In the case of TTB agreement, measures include those for environmental protection, and those regulations applicable to production and process methods (PPMs). Each of these agreements outlines a national treatment obligation and a necessity test with the goal of reducing adverse effects of the measure taken, similar to GATT Article XX.

⁵⁵ See North American Commission on Environmental Cooperation's (CEC's) 1995 Annual Report on this.

The Uruguay Round Subsidies Agreement institutes several changes to earlier trade rules, and with potentially important implications for environmental issues. It is based on the recognition of the rights of member countries to protect themselves through the use of PPMs and related subsidies, while avoiding abuses of countervailing measures of protections.

On the other environmental-related issues, the Uruguay Round did not always produce clear-cut results. In the area of standards, The agreements under the Uruguay Round were specifically designed to discipline trade barriers and at the same time allow for differences in non-border measures. Exactly how much discipline will be put on national regulations, and what will constitute sufficient scientific justification for high standards remain unclear. Under the subsidies agreement, the use of countervailing measures to deal with unfair trade practices (in the form of lax environmental standards) is prohibited. At the same time the agreement allows subsidies in the form of forgone revenue for environmental taxes if they are specific.

At the Marrakesh ministerial meeting in 1994 which concluded the Uruguay round, the member countries agreed that trade and environment should be on the future ministerial meeting in Singapore in 1996. They also agreed to the establishment of a new Committee on Trade and the Environment (CTE) to assess linkages between trade and environment.⁵⁶ It was agreed that the mandate of the CTE would include the following areas: the relationship between multilateral environmental arrangements and the GATT/WTO; how environmental policies with significant trade effects impact the trading system; how environmental taxes and charges interact with trade rules; eco-labeling issues; WTO dispute settlement and multilateral environmental agreements (MEAs), such as the Montreal protocol; environmental policy measures and market access; and domestically prohibited goods. Progress on any of these issues has not been very forthcoming, primarily because developed countries such as the countries belonging to the European Union have insisted on modifying GATT/WTO disciplines for environmental reasons. At the same time, developing countries have adopted a more cautious stance on this issue, fearing that the proposed modifications may be protectionist measures in disguise against their exports.⁵⁷

On PPMs, proposals were put forward to modify the current GATT principle of national treatment contained in the Article III. More specifically the proposed modification is aimed at the concept of like products, which currently prohibits any distinction in trade policy treatment between products made in a "clean" and "dirty" manner. Current GATT/WTO rules are considered to be incompatible with activist domestic environmental policies, since they imply a competitive disadvantage to domestic industries, if exporting countries happen to have lower environment standards. On MEAs, the goal has been to secure a GATT/WTO accommodation of the trade provisions of their agreements before any GATT/WTO inconsistent measures are taken under the Montreal protocol. The proposals include expanding the scope of GATT Article XX exceptions to explicitly cover MEA trade measures, the granting of GATT/WTO Waivers for such trade measures, and the granting of limited waivers which would condition the use of MEA trade measures. Notwithstanding these proposals, it is fair to say that there has not been much progress made on the trade and environment issues by the CTE.

⁵⁶ See Esty (1994) for a detailed discussion on environmental issues in the GATT. And see WTO (1996b, Annex I) on the CTE exact mandate and terms of reference.

⁵⁷ In general, environmental advocacy groups have been critical to the environmental arrangement of the GATT/WTO and the WTO has been urged to respond to a number of substantive policy challenges. See Esty (1996, 1997) for the list of policy challenges he articulated with respect to this issue.

Given the limited progress on the trade and environment issue in GATT/WTO, the question of interest is how the debate on the issue is likely to shape up post Singapore ministerial meeting. There is a number of points that can be made in these regards. First it will difficult for the WTO to accommodate any serious issue on trade and environment for fear of establishing a precedence. Second the wedges between developed and developing countries on this issue are likely to widen after Singapore. Lastly developments of this issue outside the GATT/WTO will increasingly become dominant in public forum; in particular the potential trade effects of new global environmental agreement and regional environmental arrangements will become an important issue to trade policy makers.

In the mean time pressures for changes to be instituted within the GATT/ WTO to accommodate trade and environment issues is likely to continue even after Singapore, but with growing frustration from the proponents and opponents of changes. Also linkage not only of GATT/WTO arrangements to multilateral environmental but also to new MEAs and onto trade patterns will shape up to become an important issue in the policy arena.

A number of proposals have been put forward as to how environmental considerations could be accommodated in future GATT/WTO agreements. One proposal suggests the use of Article XXV waiver mechanism to allow for the use of otherwise inconsistent measures on environment grounds. Another seeks modifications to the GATT/WTO rules to allow for wide-ranging exceptions on environmental grounds. Also the GATT agreements in the WTO that deal with trade and environment issues can be clarified for effective use.

Waivers for individual member countries under Article XXV could be used for environmentally related trade restricting measures that would otherwise violate current GATT/WTO agreements. Waivers have the advantage of addressing environmental concerns while leaving the existing structure of GATT/WTO disciplines virtually unchanged, hence avoiding any need for a potentially complex and divisive rule rewriting negotiation. Environmental waivers could take on more general forms than those which have been in the GATT, which are narrowly focused and granted to one member country at a time. In other words there could be block waivers granted to subgroups or even all member countries, and allowing them to apply specific trade restricting measures for environmental purposes. In the extreme there could be broad-ranging waivers which outline general conditions under which environmental exceptions would be permitted.

Another proposal to bring environmental issues into the GATT/WTO suggests that the General Agreement be amended to allow for more explicit environmental exceptions than it now contains. This proposal is unappealing because some key GATT articles including Article I and III require a unanimous support, while others require a two-third majority. Moreover any amendment to the General Agreement is required to pass through a formal national treaty ratification procedure, which further reduces the chance for the amendment to pass.

The above discussion suggests that the only practical mean available for changes in environmental issues in the GATT/WTO in the short run is in the form of waivers, and this is likely to yield unsatisfactory results. Even over the long haul, the GATT/WTO is unlikely to be amended in a fundamental way, given both the scope of change and the practical difficulties involved. The most likely scenario is that the trade and environment rules will be negotiated by member countries through a side agreement, supplementing and clarifying the meaning of existing Articles of the General Agreement and other agreements in the WTO.

Article XX exceptions are likely to be the prime target for any effort to change GATT rules as they apply to trade and environment since there is considerable confusion about their precise meaning. In particular there is confusion over whether exceptions should be narrowly defined to prevent their abuse, and the justification for such a narrow definition. There have been proposals for wide-ranging amendments to Article XX.⁵⁸ A precedent for these proposals is GATT Article XX(h) which provides exemption for agreed member countries to international commodity agreements along related lines. Such exemptions may invite protectionist measures and inefficient environmental policies since any trade action could in principle be taken in the name of environmental concerns. Being aware of this potential implication, developing countries are especially strong in their opposition to these particular proposals. It seems likely that future consideration of the use of trade measures under Article XX will draw on the results of UNCED, which stressed the need to prevent arbitrary discrimination and disguised trading barriers, as with existing GATT rules. The Rio Declaration invited countries not to impose unilateral measures in dealing with environmental issues originating outside a country's jurisdiction, and to base their solutions on international consensus. There seems to be a broad support for the argument that any general approach to rewrite Article XX as it relates to trade and environment should discourage unilateral and protectionist measures. However there is a sharp disagreement among member countries on what will be the future allowances for environmentally related trade measures which are used to describe the general principles.

Post Singapore, the interaction between environmental regulation and trade policy will also be a key issue for GATT/WTO. The national treatment obligation in Article III prohibits member countries from using domestic tax policies or regulation to provide domestic protection, and requires domestic policies to treat import equally to "like" domestic products. The definition of "like" product has been interpreted as prohibiting trade restrictions based on the processes and methods used to produce imported goods. Dispute settlement panels have examined whether regulatory or tax distinctions used for non-trade objectives can be allowed to determine whether "like" products are treated in accordance with Article III. Even if domestic taxes or regulations violate the national treatment obligation under Article III, they could still be justified under Article XX. This possibility raises further question as to how stringent such exceptions should be. So far the GATT has been willing to allow member countries to protect domestic health, safety and environment under Article XX(b), provided that these trade measures are least distortionary.

The GATT/WTO negotiation and dispute settlement procedures of environmental issues are viewed by environmental groups as lacking openness. Cited as examples are the absence of the rights to appear before tribunals and to appeal decisions. Another example involves the granting of information by the GATT/WTO to member countries to allow them to assess the environmental effects of proposed policy changes, including the outcome of any future multilateral negotiation. The courts in the United States were unsuccessful in their attempt to force compliance with the 1969 national Environmental Policy Act arguing that the NAFTA and the Uruguay Round agreements should be subjected to its requirements.

⁵⁸ These amendments would make it impossible for the GATT/WTO to prevent any member countries from taking any action "which is deemed necessary to protect the environment, including the establishment of import or export restrictions, the use of subsidies ..." See Shrybman (1989). These proposals are also linked to provisions that, in any GATT/WTO dispute on actions taken to protect environment, the complainant must make the case.

It is true that an open trade negotiation process, such as the Uruguay Round necessarily make exchanges of concession more difficult. However a more open process for dispute settlement is often desirable, especially for disputes arising from the trade effects of domestic policies. In fact some member countries have suggested that a special category of cases be established for environmentally related disputes, before which expert opinion can be requested.

Post Singapore ministerial meeting some countries are likely to raise the issues on the linkages between environment, subsidies and competition. The likely items on the table include whether to change existing trade rules that restrict export and domestic subsidies, even when they are used for environmental protection; whether countries with relatively lower environment standards should be “punished”; and whether trade discipline on the use of subsidies can help improve environment protection. The Uruguay Round tightened the restrictions on the use of export subsidies, and these rules apply equally to pollution abatement and other non-primary product industries. The intention of these rules is to prevent exporters receiving such subsidies from reaping “unfair” trade advantage, and to maintain neutrality with respect to trade policies. Export subsidies for environmentally friendly products are often viewed as a way to transfer environmental protection technology to developing countries. However developed countries tend to oppose the use of such subsidies given their experience with subsidies in agriculture. Also there is a concern that such special exceptions for subsidies may encourage developing countries to adopt end-of-pipe clean-up technologies instead of products and processes with less pollution capability. Lastly there is fear that such subsidies will encourage substantial entry into polluting industries.

Post Singapore ministerial meeting will also witness serious attempts by some countries to raise environmental issues with other GATT articles. For instance, Articles I and III are likely to be modified to allow for discriminatory trade actions on environmental grounds, even though Article XX should be the natural target for changes on these grounds. Under Article IX, eco-labelling issues such as those implied by the European Union policy are likely to come under scrutiny. In particular there is a need to clarify the extent to which such measures are trade discrimination in disguise, or simply added costs for foreign producers. Articles XI and XII may also receive attention for discriminatory import bans which are similar to those under dispute in the tuna-dolphin case. In particular efforts will be made by some countries to obtain special environment exception to these Articles, without having to argue under the general exceptions of Article XX. Pressures for changes will also likely be exerted on Article XVIII. This Article implies less stringent discipline on the use of tariffs and trade restrictions by less developed countries to promote infant industries or for balance-of-payment considerations. There will be demands for the granting of further special rights for developing countries to use trade restrictions beneficial to environment. Article XIX which deals with safeguards will be under intense discussion. In fact some countries already have argued for special rules to deal with imports of products from countries with low environmental standards. This discussion is likely to lead to a demand for environmental impact statements to be augmented to Article XXIV. Lastly, Part IV of the GATT, which consider the special and differential treatment received by developing countries in the trading system, will likely occupy a prominent stand in any future multilateral arrangement on trade and environment because of the basic commitment it gives to developing countries to open trade and thus compensation for environmental restriction.

The review on trade and environment in this section makes it clear that trade and environment will remain an important, albeit symbolic, issue to the WTO in the years to come. Progress in negotiation over the issue has been and will be severely dampened by overriding concerns of precedent and difficulties of counteracting the intent of established trade measures. These problems are further aggravated by the North-South divide which faces proposals for any significant modification to the existing agreement in the area. Even the symbolic significance of the issue may get side-tracked slowly in future negotiations. One of the possible reasons is that future multilateral negotiations are likely to be focused on more traditional reciprocity than rule writing. This includes possible exchanges of concessions involving the new post Uruguay Round tariffs in agriculture, post MFA elimination of tariffs in apparel, bound tariffs in developing countries, etc. Another way in which the trade and environment standards may be pushed further into the background is the gradual fragmentation of the key issues: environment, labor standards, competition policy and investment into four separate negotiating items. Thus post Singapore ministerial meeting periods will be ones characterized by trade and environmental issues occupying a prominent post in the GATT/WTO agenda, but with little substantive agreement reached before and during the next negotiating Round which may still be a considerable distance from now.

6. Trade in services

Trade in services has been expanding much more rapidly than trade in merchandise. In 1990 global trade in services (defined as non-factor services in the balance of payments less government transactions) grew from a 17 percent of global share in 1980, to a 20 percent share. By 1995, trade in services already represented a 25 percent share in the global trade.⁵⁹ To the extent that the balance of payment statistics do not usually capture services provided via telecommunications networks properly, this recorded growth of trade in services is likely to be still underestimated.

Despite the technological advances in recent years, many services remain difficult to trade. Producers of such services generally must supply foreign markets through a commercial/ establishment presence, especially via foreign direct investment (FDI). The FDI in services has also grown rapidly over the last decade or so. As of the early 1990s, almost half of the global stock of FDI was in service activities. Recently there has been a substantial increase in the share of services in annual FDI inflows into many countries.⁶⁰ The globalization of services is reflected in the growth rate of trade flows and FDI flows. These growth rates have been driven by innovations in information and communication technology which allow for an increasing specialization and product differentiation, and by government policies on deregulation and liberalization.

⁵⁹ See WTO (1996).

⁶⁰ See UNCTAD and World Bank (1994) for data on FDI in services. The issue of service in the multinational context is discussed in Sauvans and Zimny (1987), Blomstrom and Lipsey (1989), Li and Guisinger (1992), and Edvardsson, Edvinsson and Nystrom (1993).

This section reviews some of the literature on trade in services, focussing first on the potential gains from a liberalization of trade in services, and then on the institutional mechanisms that are adopted over the years in search of such a liberalization.⁶¹

Anecdotal evidence assembled to this date have tended to suggest that restrictions on trade in services and investment are likely to be costly and that liberalization of service trade is expected to produce large efficiency and welfare gains.⁶² There is only a limited number of studies that focus on the general equilibrium impact of the liberalization of trade in services. However as services are an input into production in most industries, an inefficient service sector is likely to be very costly to the economy as a whole. Even if a country were to engage in a reform program that would reduce tariffs of goods to zero, distortions would continue to persist and, as a result, resource allocation would be adversely affected if this program excludes the service sectors. As countries move to cut tariffs and remove other trade barriers, effective rates of protection may become negative for manufacturing industries as they lose protection on their goods, and at the same time these industries are confronted with input prices that are higher than they would be if services markets were contestable. Therefore it is not surprising to see that liberalization and deregulation of services markets began to emerge as important policy reform agendas. Certainly pressures to improve access to export markets help bringing services on the agenda of the GATT trade round (the Uruguay Round, 1986-1994).

In determining how important different services in the economy are, not only does the share of services in GDP (which is about 70 percent in high income countries and 26 percent in some low income countries) matter, but so does the service intensity of production. Measures of the value of the services provided to all other sectors of the economy in principle can be obtained from input-output tables. Although information from input-output tables has a number of shortcomings, their analysis often can provide some insights regarding the intersectoral relationships that exist in different economies.

An analysis of input-output tables for 26 countries at varying levels of economic development suggests that the relative importance of producer services, as measured by the dependence of the manufacturing sector on such service inputs, increases with per capita income.⁶³ In particular the relative importance of producer services in developed countries is found to be three times higher on average than for low income countries. Conversely, the relative importance of distribution (retail and wholesale trade) tends to be greater in developing countries than in developed countries. A more recent analysis of the role of services in the structure of production and trade of 15 countries tends to confirm the above finding.⁶⁴ This later study concludes that as per capita income rises, services (both arms-length and intra firm/ in-house) account for 60 to 80 percent of all exports, as compared with about 20 percent for low income countries.

⁶¹ Much of the discussion on the institutional arrangements to liberalize trade in services relies on Hoekman (1994, 1995, 1996), Hoekman and Primo Braga (1996), Hoekman and Sauve (1994), Sauvans (1986a,b), UNCTAD and World Bank (1994). The discussion is empirically and policy oriented, since the theoretical literature in this area has been well reviewed by Sapir and Winter (1994), and Stibora and de Vaal (1995).

⁶² See White (1988), USITC (1991), Francois, Arce, Reinert and Flynn (1996) on ocean shipping services in the United States, Bennethan, Escobar and Panagakos (1989) on the effects of flag discrimination and cargo preference policies in Chile, and Bohme (1989) on the UNCTAD liner code and maritime transport. See also World Bank (1993) on Chile and Mexico's experiences with port services, and Hill and Abdala (1993) on Argentina's experiences with port services.

⁶³ Park See and Chan (1989). See also Uno (1989).

⁶⁴ See Francois and Reinert (1996).

More recently there have been a few studies that attempt to undertake a computer general equilibrium (CGE) analysis of the world economy with liberalization of trade in services. Common to these studies is the lack of reliable data on the impact of the policies that restrict trade and investment. As a result, these studies are useful primarily as devices to illustrate the potential economy-wide impact of barriers to trade in services, and the intersectoral reallocation of production factors which will open up the service sectors to greater foreign competition. For instance, Brown, Deardorff, Fox and Stern (1996) conclude that welfare gains associated with the Uruguay Round cuts in industrial tariffs would have been three times higher if the barriers to trade in services had been cut by 25 percent.

Having reviewed some of the work that has been undertaken on the gains of liberalization of trade in services, we turn to the various institutional options that may be used to open up services markets to foreign competition. To this end, we observe that many countries in the world today, including both industrialized and developing countries, have been continuing to pursue liberalization and competition-increasing policies in services unilaterally.⁶⁵ In general the liberalization process of trade in services tends to be supported by export-oriented sectors and consumers and opposed by import-competing industries.

Regional (or preferential) agreements to liberalize trade in goods and trade in services were prominent the late 1980s and early 1990s. Examples include the United States-Israel Free Trade Area, the Canada-United States Free Trade Agreement (CUSFTA), the Australia-New Zealand Closer Economic Relations trade agreement (CER), the EC-1992 program, numerous agreements between EU and neighboring countries, the North American Free Trade (NAFTA) and Mercosur (the Southern Cone Common Market). In 1994 regional agreements to liberalize trade in services were complemented by a new multilateral agreement to liberalize trade in services, known as the General Agreement on Trade in Services (GATS).

The existing literature in trade in services strongly suggests that the benefits conferred to the integration of regional services are easier to internalized. Moreover some service activities are likely to generate network externalities or be associated with agglomeration and other scale effects. The former are likely to be much more important for telecommunications and information services, while the latter are likely to be important for tradable services that are not highly tied to specific manufacturing activities (such as financial intermediation and consulting).

These are some of the potential reasons why regional agreements to liberalize trade in services may be more attractive than the multilateral counterparts. However it is difficult to gauge just how critical these considerations are in practice. From an economic viewpoint, the crucial issue is the extent of the liberalization that occurs as a result of the regional arrangements. To this date evidence on this issue seems to be inconclusive. In the case of the EEC, where liberalization of trade in services was supposed to occur under the provisions of the 1957 Treaty of Rome, little progress (if any) has been made in the last four decades. Many of the recent regional agreements that include services also have achieved very little (if any) liberalization of trade and investment. An example of this is the Euro Mediterranean Partnership agreements that were concluded between the EU and a number of Mediterranean countries. These agreements simply make reference to the multilateral obligations embodied in the GATS.

⁶⁵ See UNCTAD and World Bank (1994) a detailed discussion on this issue.

The GATS contains a set of general principles that apply to all measures affecting trade in services and a specific negotiated set of commitments that apply to those service sectors and subsectors that are listed in a member country's schedule. The Agreement applies to four modes of supply. These are cross-border supply of a service, provisions implying movement of the consumer to the location of the supplier, service sold in the territory of another member by legal entities that have established a presence but originate in the territory of another member, and provisions of services that require a temporary movement of "natural" persons, which are suppliers or persons employed by the suppliers who is a national of a member country.

Under the GATS, each service or service supplier from a member is treated equally as any other foreign service or service supplier. MFN applies to all trade in services, except in the case where a member has invoked an exemption for a specific measure. Such exemptions in principle last no longer than ten years, and are subject to periodic review and negotiation in subsequent trade liberalizing rounds. Moreover these exemptions can be invoked only after being a party to the agreement.

The general obligations of the GATS, of which MFN is the most important ones, are complemented by specific commitments on market access and national treatment. Market access is not defined explicitly in the GATS. Instead agreement was reached on a list of measures that are in principle prohibited. These are measures to place limitations on the number of services suppliers allowed, the value of transactions and assets, the total quantity of service output, the number of "natural" persons that can be hired, the type of legal entity through which a supplier is allowed to supply service (e.g. branches versus subsidiaries of banks), and the participation of foreign capital in terms of a maximum percentage limit of foreign share holding or the absolute value of foreign investment.

Under the GATS, national treatment for foreign services and service suppliers means that foreign services and service suppliers receive the same treatment as that accorded to domestic services and service suppliers. Specific commitments apply only to listed service sectors and subsectors, and they apply when sector-specific qualifications, conditions and limitations are not maintained. Any or all of the six types of measures that are prohibited in the market access article may equally be applied to a sector that is listed by a country as long as these measures are listed under the GATS. Moreover these measures can be associated with any or all of the four modes of supply mentioned earlier.

The impacts of the GATS depends on the content of the specific commitments made by countries who are parties to the Agreement. A closer look at these commitments suggests that most countries listed only a small part of their service sectors. Instead they continue to maintain a large number of measures that violate market access or national treatment as defined in the GATS. High-income countries listed 47.3 percent of the service sectors, while developing countries listed only 16.2 percent. In fact over one quarter of (22 out of the total 78) developing countries listed less than 3 percent of the total service sectors specified under the GATS. If commitments are weighted to discount the "value" of sector-specific commitments where restrictions on market access and national treatment continue to apply, then the average weighted coverage of commitments by high-income countries is 35.9 percent, while that by developing countries with GDP of \$40 billion or more is 22.9 percent, and that by other developing countries is only 10.3 percent. Perhaps the most appropriate measure of the extent of liberalization that is embodied in the specific commitments under the GATS is the share of commitments where no restrictions are maintained on either market access or national treatment. This figure is 24.8 percent of all services for high income countries, and only 6.9 percent for the other countries. These numbers show that

there is still along way from achieving “free trade” in services for the GATS members.⁶⁶ Market access commitments by the OECD countries tend to be confined to activities where developing countries have a comparative advantage, namely both low- and high-skill labor-intensive activities that require either temporary entry or establishment/work permits.⁶⁷

The immediate implications of the GATS in terms of liberalization of trade in services are limited and much remains to be done to extend its coverage. The major output of the Agreement involves a commitment not to introduce new distortions in the service sectors. In evaluating the GATS, it is useful to compare it with regional arrangements such as NAFTA.⁶⁸ It turns out that there are significant differences between the two arrangements. Under the GATS, market access, national treatment, and the right of non-establishment (i.e. the right to provide cross-border services without an established presence) are not considered general obligations, whereas under the NAFTA, they are. Also, no distinction is made under the NAFTA regarding the modes of supply as far as rights and obligations are concerned. The NAFTA employs a negative list approach to coverage (i.e. all services are covered unless they are explicitly excluded in an annex), whereas the GATS employs a positive list approach to coverage (i.e. obligations apply only to listed services). Obviously a negative list will be more transparent because it forces countries to reveal all non-conforming measures and excluded service sectors.

The GATS does not cover government procurement of services. Instead it calls for negotiations on this issue to be initiated within three years of after the Agreement is put into action.⁶⁹ In contrast the NAFTA requires that covered entities open public contracts to North America wide tendering. Under the NAFTA, disciplines of openness, transparency and competitive bidding are to apply to the purchases by public entities of goods and services. This is an important feature of the arrangement, since procurement typically represents the most direct means of liberalizing the provision of service sectors - such as computer services, consulting engineering, or construction - that are otherwise subject to very few or no cross-border barriers.

The NAFTA arrangement shows that regional agreements to liberalize trade and investment in services have the potential to go significantly beyond the GATS. In addition to the NAFTA, the EU is the next promising arrangement. To be sure there usually is a lot of overlap between the GATS and “deeper integration” regional arrangements. With the exception of the EU, most regional arrangements embody many exceptions and loopholes. Indeed, in terms of sectoral coverage, the “sensitive” sectors (such as transport) in many of the regional agreements tend to be the same as that under the GATS. It should not be forgotten that the GATS is only the first step taken on the service sectors in the multilateral setting. With the passage of time, the coverage of the agreement is likely to expand and, as a result, a greater liberalization of trade in services is expected to occur in the future.

⁶⁶ See Hoekman (1996) for a detailed discussion of the methodology used to obtain the numbers reported here.

⁶⁷ See Hoekman and Primo Braga (1996) for the role of levels of development, size of the domestic market and FDI stock with respect to market access commitments under the GATS

⁶⁸ Hoekman and Sauve (1994) provide a detailed discussion on this issue.

⁶⁹ The GATT Government Procurement Agreement (GPA) was extended to include service sectors as of 1997. However, the GPA is a multilateral agreement that binds the signing countries only, which are mostly the OECD countries).

In summary, liberalization of trade in services has become an important policy issue in international trade over the last decade. A combination of the pressure from export-oriented service industries, the regional arrangements with deep integration, as well as the inclusion of services in the Uruguay Round of multilateral trade negotiations have contributed to an increasing prominence of trade in services as a policy issue. This trend is likely to continue to persist as technological progress increases the tradability of services.

7. Conclusion

To be sure, no one can say with absolute certainty how the world economy will look like in the year 2005 and onwards. However there is ample evidence to suggest that Asia has been transforming itself to becoming the center of world economic activities, and this trend is expected to continue into the future over the long haul, even though there will be setbacks along the road. Similarly the pattern of comparative advantage has been and will be changing in favor of East Asian countries. These changes in the global economy are found to have a significant impact on the likely outcome of the Uruguay Round reforms. One reason for this is that with the global distribution of trade and production shifting toward Asia, the relatively deeper Uruguay Round tariff cuts are likely to become even more important.

Our review of the literature clearly suggests that the final impact of the Uruguay Round depends very much on the changes in the world economy that are likely to occur during the implementation of the Round. The higher growth rates of developing countries alone are an important factor, as are the massive structural changes associated with these high rates of growth.

China's and Taiwan's admission into the WTO is projected to further increase the gains from the Uruguay Round by the year 2005 by raising the total world trade from 10 to 13 percent. However there is a possibility that high income countries will be tardy in fulfilling their obligations to the MFA under the Uruguay Round's Agreement on Textiles and Clothing. Ironically this is even more likely to happen if China joins the WTO, given its potential to expand its textile and clothing over the next decade or so. Under this scenario, the projected gains from the Uruguay Round are likely to dissipate considerably, dampening, thereby, the process of industrialization in Asia's dynamic economies and development prospects elsewhere, including in the African continent. The prospect for the world trade is likely to improve considerably with the move by the APEC countries toward MFN (non-discriminatory) free trade by the year 2010-2020. This will be a more likely event to occur if the APEC reform includes the agriculture sector. Under this scenario, and with China in the WTO, the world trade in all products is projected to increase by an additional 6 percent over and above the 10 percent increase due to the Uruguay Round plus the 4 percent increase due to China's and Taiwan's admission into the WTO.

An overall conclusion drawn from our review of trade and competition is that although considerable progress has been made in this area to date, there are still much scopes for improving both the domestic and international policies that are directed at strengthening the world trading system and enhancing international competition. It is in the best interest of the high-income countries (such as the United States and the European Union member countries) to encourage developing countries to take an active part in the process of regulatory reform and the agenda for international trade arrangements. The best

way to achieve this is to ensure that further trade liberalization undertaken in high-income countries will not be at the expense of the developing countries.

As regards to trade and labor standards, our review of the literature suggests that there is a strongly positive correlation between a country's labor standards and its per capita income. This led us to stipulate that labor standards in developing countries are likely to improve if high-income countries design more of their policies with the objective to maintain open markets and encourage economic growth in developing countries.

Similar normative conclusion was made in the case of trade and environment standards. However since linkage between trade and environment has become a fact of life in the modern global trading system, the review in this section heavily focused on the likely evolution of the trade and environment issue in the WTO following the ministerial meeting in Singapore in December of 1996. It was concluded that relatively little substantive results (if any) on the issue would be expected post ministerial meeting in Singapore, even though the issue itself would remain important (albeit symbolically) in future multilateral trade negotiations.

Finally our reading of the literature in trade in services is that liberalization of trade in services appears to have occupied a very prominent place in the international policy forum over the last decade or so. This is largely due to a number of factors, including persistent efforts from export oriented service countries, increased regional experiments with deep integration, and the inclusion of services in the Uruguay Round of multilateral trade arrangements. This trend is expected to persist in the future as newer technology further increases the tradability of services.

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