Duty and Quota Free Market Access for LDCs:
An Analysis of Quad Initiatives

United Nations Conference on Trade and Development

The Commonwealth Secretariat

United Nations

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London and Geneva, 2001

UNCTAD/DITC/TAB/Misc.7

PREFACE

The difficult and challenging task of integrating developing countries into the world economy is one of the key concerns of both the Commonwealth and UNCTAD. The Commonwealth, with a membership of 54 nations, is an active player in assisting its developing country members to increase the quality of their integration into the global economy. In their *Fancourt Declaration on Globalisation and People-Centred Development* (South Africa, 1999), Commonwealth Heads of Government called for improved market access, particularly for developing countries, and for the removal of all barriers to the exports of LDCs. UNCTAD X (Bangkok, 2000) reaffirmed, in turn, the important role that UNCTAD has to play in assisting developing countries, particularly LDCs, to extract more benefits from globalisation and contribute to the debate and process of ensuring that the multilateral trading system provides a framework for their development aspirations.

Against this background of common objectives, the present study is evidence of mutual cooperation. Making developing country trade preferences more effective is essential, especially in the context of the past five years, when the international community has been struggling to deliver on its commitment to improve the scope and coverage of its current market access initiatives. This study should assist readers to better understand current preference schemes; their value to LDCs; and how that value can be diminished as a result of their limitations. One of the key conclusions is that there would be positive gains to LDCs if Canada, Japan and the United States followed the lead of the European Union and offered quota- and duty-free market access to all products originating from LDCs, with the exception of arms. The study examines the cost and benefits of extending the EU's EBA policy in this way. It is our hope that it will lead to a better understanding of the practical benefits of such policies to LDCs.

Rt. Hon Donald C. McKinnon
Commonwealth Secretary General

Rubens Ricupero
Secretary-General of UNCTAD

ACKNOWLEDGEMENTS

The UNCTAD and Commonwealth Secretariats have prepared this study jointly. At UNCTAD the responsible team, under the supervision of John Cuddy, Director of the Division on Trade in Goods and Services, and Commodities was from the Trade Analysis Branch. It included Bijit Bora, Lucian Cernat and Alessandro Turrini. Aki Kuwahara, Sam Munyaneza, Inge Nora Neufeld, Juan Pizarro and Susan Teltscher also provided specific inputs and assistance. The team at the Commonwealth Secretariat's International Affairs and Regional Cooperation Department of the Economic Affairs Division included Roman Grynberg and Pierre Berthelot. Input for the case studies were provided by Jameel Khadaroo, Roland Lamusse and Mustafizur Rahman.

A number of people assisted in the preparation of the study by reading and commenting on drafts of various chapters. These included Mehmet Arda, Stefano Inama, Peter Lloyd, Luca Monge-Roffarello, Marguerita Mussollino, and Richard Pomfret.

This study was copy-edited by John Pappas. Jenifer Tacardon-Mercado was responsible for typesetting the manuscript. She was assisted by Florence Cuénoud Guénin. Diego Oyarzun-Reyes designed the cover.

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List of Abbreviations

ACP	African Caribbean Pacific
AGOA	Africa Growth and Opportunity Act
APQLI	Augmented Physical Quality of Life Index
ASEAN	Association of South-East Asian Nations
ASSUC	Association des Organisations Professionnelles du Commerce des Sucres
BBS	Bangladesh Bureau of Statistics
BGMEA	Bangladesh Garments Manufacturers and Exporters Association
BPT	British Preferential Tariff
BTMA	Bangladesh Textile Mills Association
CAP	Common Agricultural Policy
CBI	Caribbean Basin Initiative
CBTPA	Caribbean Basin Trade Partnership Act
CCCT	Commonwealth Caribbean Countries Tariff
CDE	Constant Difference of Elasticities
CET	Constant Elasticity of Transformation
CGE	Computable General Equilibrium
CoO	Certificate of Origin
DFAIT	Department of Foreign Affairs and International Trade
EBA	Everything but Arms
ECU	European Currency Unit
EIB	European Investment Bank
EO	Export Oriented
EPB	Export Promotion Bureau
EU	European Union
EVI	Economic Vulnerability Index
FDI	Foreign Direct Investment
FTA	Free Trade Agreement
FY	Financial Year
GAO	General Accounting Office
GATT	General Agreement on Tariff and Trade
GDP	Gross Domestic Product
GOB	Government of Bangladesh
GPT	Generalized Preferential Tariff
GSP	Generalized System of Preference
GTAP	Global Trade Analysis Project
HACCP	Hazard Analysis Critical Control Point
HS x	Harmonized System, at x digit level
ISO	International Sugar Organisation
LAC	Latin America and the Caribbean
LDC	Least Developed Country
LDCT	Least Developed Country Tariff
M. ton	Metric ton
METI	Ministry of Economy, Trade and Industry of Japan
MFA	Multi-Fibre Agreement
MFN	Most Favoured Nation

NAFTA	North-American Free Trade Agreement
PTA	Preferential Trade Agreement
RC	Regional Cumulation
RMG	Ready Made Garments
RoO	Rules of Origin
ROW	Rest of the World
SAARC	South Asian Association for Regional Cooperation
SITC	Standard Industrial Trade Classification
SPS	Special Preferential Sugar
STABEX	Stabilisation of export earnings for agricultural commodities
SYSMIN	System for Safeguarding and Developing Mineral Products
TRAINS	Trade Information System
UNCTAD	United Nations Conference on Trade and Development
UR	Uruguay Round
US TDA	United States Trade and Development Act
USTR	United States Trade Representative
WSE	White Sugar Equivalent
WTO	World Trade Organization
$	Reference to 'dollars' ($) means United States dollars, unless otherwise indicated

EXECUTIVE SUMMARY

The 49 countries classified as the Least Developed Countries (LDCs) by the United Nations have been struggling to find ways to make international trade a more pragmatic tool for development. Despite the dynamism of world trade in the 1990s, they were unable to take advantage of it. Indeed, their share of world trade declined during the 1990s, to reach less than one half of one per cent as a group. In addition, the products in which they specialize face some of the highest levels of protection in their key markets. In an effort to improve the exporting condition for these countries a number of countries have granted non-reciprocal market access in their markets. The latest such initiative is the Everything But Arms (EBA) proposal of the European Union, which provides duty and quota free market access for all products originating from LDCs, but arms. This study examines the economic effects of this proposal and impact of its possible adoption by the other three members of the Quad – Canada, Japan, and the United States.

The pattern of protection facing LDC exports in the markets of the Quad is most favourable in the European Union.

As of 1999, 37 per cent of LDC exports were to the European Union, 27 per cent to the United States, 4 per cent to Japan and 1 per cent to Canada. Collectively these four markets account for 70 per cent of total LDC exports (figure 1). However, within these markets there is considerable variance in the level of market access offered to LDCs. The European Union, even prior to the EBA proposal, offered the best market access with less than five per cent of LDCs exports facing a tariff barrier. Furthermore, this protection was only in agricultural products. For the other three Quad Members,

however, approximately 50 per cent of the total value of LDC exports are subject to duties. The bias of protection against LDC exports is also reflected in the composition of tariff lines that hinder LDC exports. In Canada, Japan and the United States, 18, 12 and 17 per cent of their tariff lines affect LDC exports, whereas in the European Union the figure is only 4 per cent. Therefore, the protection is concentrated in only a few sectors of key importance to LDCs (table 1).

Only 5 per cent of LDC exports to

Figure 1. Distribution of LDC exports by market

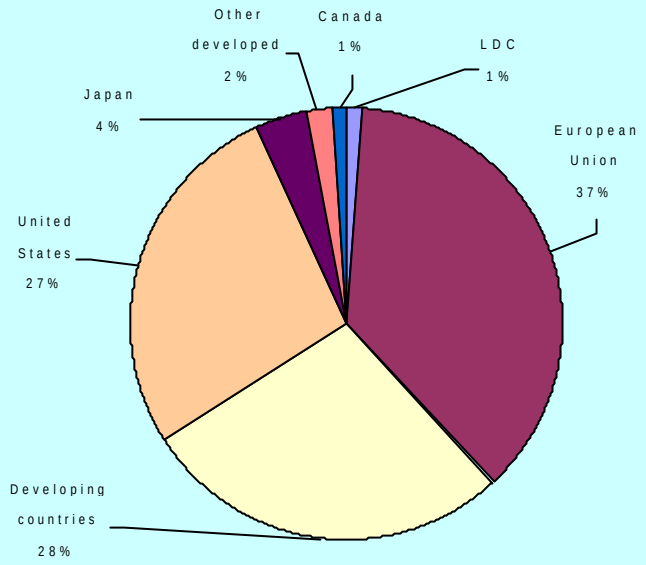


Table 1. The pattern of protection facing LDC exports to the Quad countries, 1999
(Thousands of dollars)

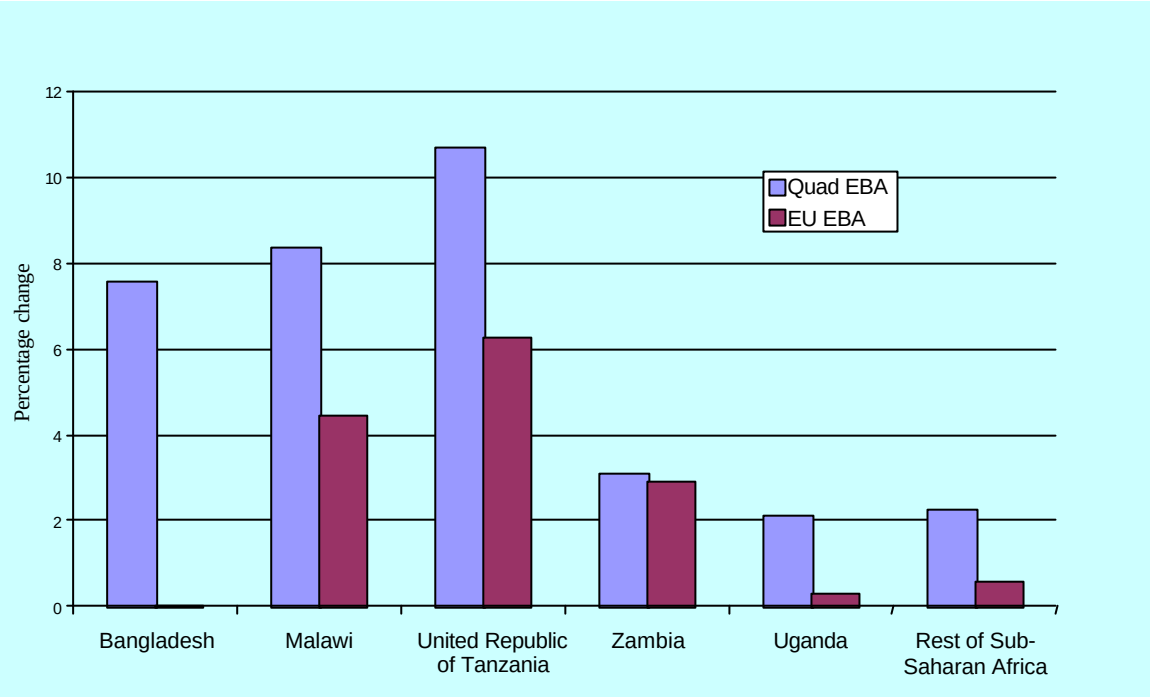
	Canada	European Union (Pre-EBA)	Japan	United States
Total LDC exports (1)	227 677	9 874 807	1 019 120	6 962 416
Total imports in product lines of LDC (2)	83 670 842	637 766 105	126 378 101	528 279 235
Total imports (3)	211 085 424	783 684 206	305 438 116	1 015 143 866
LDC share of competitive imports ((1) / (2))	0.27%	1.55%	0.81%	1.32%
LDC share of total imports ((1) / (3))	0.11%	1.26%	0.33%	0.69%
Total HS6 tariff lines	758	2222	545	946
in lines with protection	201	55	74	335
of which above 5%	181	51	36	282
LDC Exports entering duty free	103 260	9 566 647	498 534	3 596 270
LDC Exports dutiable	124 417	308 160	520 586	3 366 146
LDC Exports dutiable above 5%	123 827	308 134	226 274	3 272 917
Share of LDC exports facing protection	54.60%	3.12%	51.10%	48.30%
Share of LDC exports facing tariff > 5%	54.40%	3.12%	22.20%	47.00%
Share of HS6 lines with tariff	18.50%	4.20%	12.10%	17.10%
Share of HS6 lines with tariff > 5%	12.80%	3.80%	7.60%	14.10%

Source: UNCTAD.

European Union face a tariff barrier, whereas more than 50 per cent of their exports face a tariff barrier in the United States, Japan and Canada

The impact of the removal of the remaining level of protection in the European Union, except for arms will result in a small increase in exports from LDCs. The largest increase in percentage terms will be from Malawi, United Republic of Tanzania and Zambia (figure 2). Despite being the largest LDC exporter, the predicted change in the volume of exports from Bangladesh will be small. This result is due in a large part to its strength as an exporter of textiles and apparel products.

Figure 2. Impact on exports



Source: UNCTAD.

All of the surveyed LDCs of this study and the aggregate Sub-Saharan group will unambiguously gain from the EBA initiative.

The estimated impact on the European Union from granting the preference is negligible in every respect. The only sector of concern is sugar, but this impact has been qualified by the extended transition period. Negligible impacts are also expected for the rest of the developed countries. The same result holds for the rest of the developed countries. Minor losses are expected in China and the rest of developing Asia.

The benefits to LDCs are much greater if Japan, Canada and the United States follow the lead of the European Union.

If Canada, Japan and the United States follow the lead of the European Union, LDC exports will increase by approximately 3 per cent. Bangladesh will gain the most from this, although as a region Sub-Saharan Africa stands to gain the most. The reason for this result is the high level of protection

applied by these three Quad countries to the textiles and apparel industry where Bangladesh has become internationally competitive over the past decade.

The study also highlights resource allocation effects, due to the discriminatory nature of country and product coverage of these preferential schemes. LDCs focus their industrial policies toward enhancing sectors with greater market access in developed countries, as opposed to their comparative advantage. Unless market access is uniform and liberal preference schemes can require significant structural adjustment, including employment losses in sectors that were insulated from competition due to the preference margin. Therefore, a uniform level of preference, such as that offered by the European Union is more beneficial to LDCs than a piecemeal preference policy, such as that currently offered by the remaining members of the Quad.

Preferential access to major markets for LDCs will have negative impacts on some developing countries.

A preferential agreement will directly affect the trade pattern and structure of the parties to that agreement, as well as indirectly the non-parties. The quota and duty-free EBA proposal is no different in this regard. While designed to assist LDCs it will also affect other countries, both developed and developing through different mechanisms. One group of countries that will be directly affected are developing countries that currently obtain preferences into the European Union, especially non-LDC members of the African, Caribbean and Pacific group. These countries will be affected primarily because they have benefitted from the maintenance of support prices in the European Union at very high levels relative to world prices, thereby distorting the allocation of resources in ACP country benefits which are expected to decrease EBA following implementation. A second group of countries that will be affected are those developing countries that currently compete on the same level with LDCs. The granting of preferences to LDCs will make LDC products more competitive vis-à-vis those of the other countries, although as the study points out, many of these products have very low price elasticities. This displacement is expected to occur in agricultural products, mainly edible fruits and vegetables, cereals and sugar, as well as in manufacturing products, mainly apparel, footwear and headgear.

Removing border barriers to trade on its own is not enough. There are other policies that can be implemented to make this market access more effective.

The estimates in this study are the most optimistic outcomes given the methodology employed. Based on past experience with non-reciprocal programmes and as confirmed by the case studies, there is considerable evidence to show that LDCs do not fully utilize all available preferences. Although, supply capacity is a significant problem, donor countries can undertake initiatives to assist, such as by streamlining and simplifying rules of origin procedures, assisting LDC Governments with mechanisms that will ensure proper certificates of origin are issued, and above all ensuring that market access is not frustrated by other impediments to trade.

These initiatives are all the more important due to the continual decline in the margin of preference LDCs enjoy. As donor countries continue their liberalization trend to harness globalization, their domestic markets will become increasingly competitive. LDCs, like the domestic producers in these countries, must rise to the challenge.

Trade policy is simply one tool with which LDCs can fight poverty and improve their prospects for development.

The struggle of LDCs to improve their prospects for development has been a difficult. International trade represents only one component in the fight against poverty and for development. It should not be used in isolation but in conjunction with a range of other polices that can be implemented at the national, regional and international level. Nevertheless, as this study demonstrates conclusively, there is an opportunity for developed countries, especially the United States, Canada and Japan to make a significant contribution toward enhancing the role of trade in the development process of LDCs.

CHAPTER I

LDCs AND THE POST-WWII INTERNATIONAL TRADING SYSTEM

Least developed countries (LDCs) have, for decades, been striving to find the right developmental strategy to enable them to reduce the economic disparities between them and more advanced economies. Over the past two decades an increasing number of LDCs have placed their hopes on a development strategy based on increased participation in the world economy, through exports and inward foreign investment.

LDC participation in the rapid trade liberalization process at the multilateral level brought by successive trade negotiation rounds constituted a major shift from import substitution strategies, which have been a feature of industrial policy in most developing countries. It was hoped that trade liberalization coupled with the development of export capabilities would create the basis for economic recovery and reduce the existing balance of payments deficits. Consequently, both developing countries and LDCs became increasingly involved in multilateral trade negotiations. As a result many agreements, declarations and arrangements of the World Trade Organization (WTO) take into account the special needs of developing countries. Notable examples of tailored-agreements for developing countries include the1994 Decision on Measures in Favour of Least Developed Countries and the Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least Developed and Net Food Importing Developing Countries. The Uruguay round also included the requirement to phase-out trade-restrictive measures against key products of export interest to many developing countries. More generally, many agreements include provisions for special and differential treatment, also tariff reductions being implemented pursuant to Uruguay Round commitments represent gains in market access in both industrial and agricultural products from developing countries (Bora and Bacchetta, 2001).

Box I.1. What is an LDC?

Since 1971, the United Nations has denominated "Least Developed Countries" a category of States (presently 49) that are deemed structurally handicapped in their development process, and in need of the highest degree of consideration from the international community in support of their development efforts. In response to the socio-economic weaknesses of the Least Developed Countries, the United Nations grants these States a specially favourable treatment in the allocation of resources under its relevant cooperation programmes. At the same time, the organization gives a strong signal to the other development partners of the Least Developed Countries by periodically identifying these countries and highlighting their structural problems, thereby pointing to the need for special concessions in their favour, especially in the area of development finance and in the multilateral trade framework.

In its latest triennial review of the list of Least Developed Countries in 2000, the Economic and Social Council of the United Nations used the following three criteria for determining the new list, as proposed by the Committee for Development Policy:

- **a low-income criterion,** based on a three-year average estimate of the gross domestic product per capita (under $900 for inclusion, above $1,035 for graduation);
- **a human resource weakness criterion,** involving a composite *Augmented Physical Quality of Life Index (APQLI)* based on indicators of: (a) nutrition; (b) health; (c) education; and (d) adult literacy;
- **an economic vulnerability criterion,** involving a composite *Economic Vulnerability Index (EVI)* based on indicators of (a) the instability of agricultural production; (b) the instability of exports of goods and services; (c) the economic importance of non-traditional activities (share of manufacturing and modern services in GDP); (d) merchandise export concentration; and (e) the handicap of economic smallness (as measured through the population in logarithm).

In the 2000 review of the list, a country qualified to be added to the list if it met the above three criteria and did not have a population greater than 75 million. Application of this rule resulted in the admission of Senegal.

Source: Statistical Profiles of the Least Developed Countries (UNCTAD/LDC/Misc.72), New York and Geneva: United Nations, 2001.

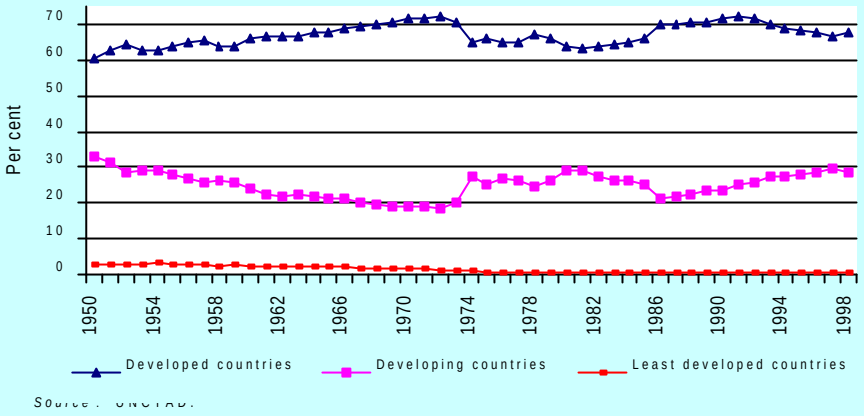
Yet the Uruguay Round Agreements, while providing for global trade liberalization, did not yield significant gains for LDCs whose competitive production capabilities in industrial products remained low. Therefore, in this context of increased liberalization at the multilateral and regional level, non-reciprocal duty-free and quota-free market access for LDCs could be seen as a developmental tool.

A. Patterns of trade

Throughout the post-WWII history, the trade performance of LDCs has remained locked in an unfavourable position. Between 1950 and 1973, international trade increased rapidly and was paralleled by an increasing reduction in trade restrictions on industrial exports to developed countries. With respect to agricultural and textile products – two sectors that were predominant in developing countries' exports – the advanced economies continued to follow protectionist policies throughout the period. Thus, some domestic producers in developed markets remained protected by high tariff and non-tariff barriers, leading to higher domestic prices. In some cases, protectionist policies

were coupled with policies that subsidized production and exports.

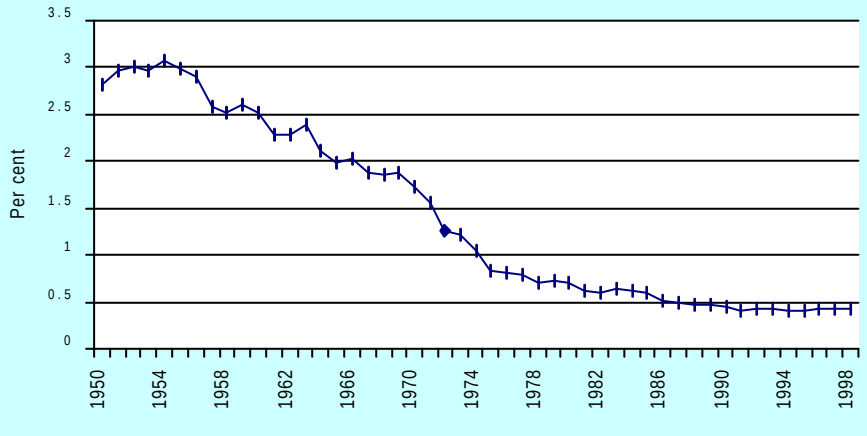
Figure I.1. Composition of world exports by level of development, 1950-1998



Source: UNCTAD.

Following the successive reduction in tariffs on industrial goods as a result of multilateral trade negotiations, trade increased significantly over the past two decades. This liberalization process has led to a significant growth in exports from Western countries and certain successful developing countries. During the period between 1990 to 1998, more than 62 per cent of the increase in total world trade was accounted for by trade occurring between advanced economies. Developing countries have also seen their share increase during the same period, from 23.5 per cent in 1990 to 28.4 per cent in 1998 (figure I.1). The share of LDCs in international trade has always been low (figure I.2). Over the last four decades their share in world exports decreased constantly from 3.06 per cent in 1954 to 0.42 per cent in 1998. The decline was more rapid in the 1960s and 1970s.

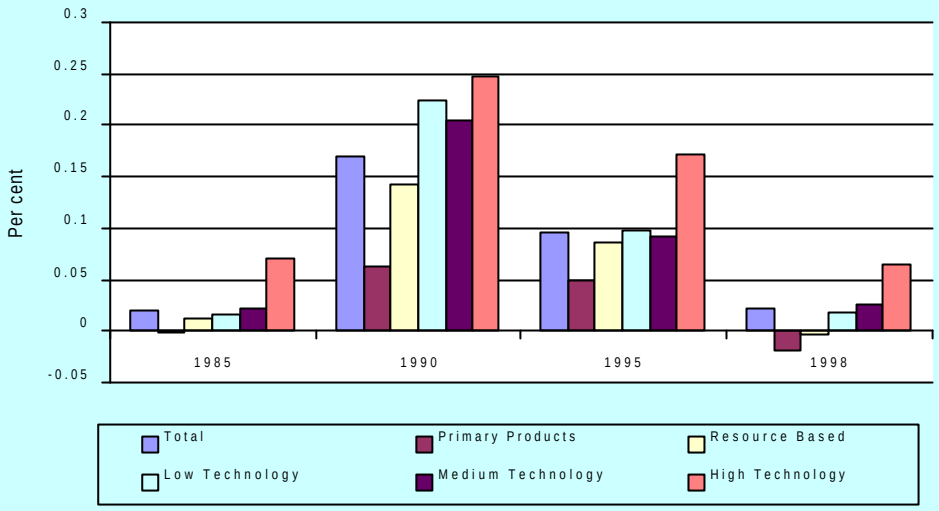
Figure I.2. LDC share in world exports, 1950-1998



Source: UNCTAD.

During the same period, there was also a significant change in the structure of world trade. The category of exports showing consistently high levels of growth was high-technology products.[1] The slowest growing products were the primary and resource based manufacturing products, or the products where developing countries and LDCs in particular have a comparative advantage (figure I.3). As a result, high and medium technology intensive products now account for the largest share of world trade. Agricultural products, which only twenty years ago accounted for the largest proportion of the value of trade, now account for the smallest proportion (figure I.4). Indeed, the value of trade in office products now exceeds the value of agricultural trade. As a group, the developed countries have consistently held their market share of products in the high and medium technology sectors (figure I.5). On the other hand, developing countries as a group are the ones that have shown the most dynamic growth in the high technology sectors (figure I.6).

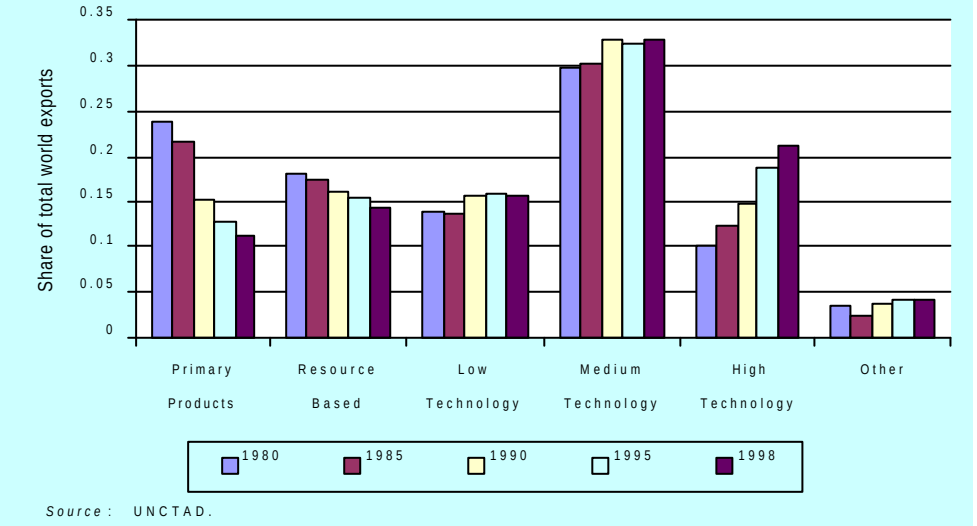
Figure I.3. Rates of export growth by product type, 1980-1998



Source: UNCTAD.

However, while this is a positive development, the less developed countries, in particular the LDCs have not been part of this growth process. Consider the developing countries of Africa as a group. Figure I.7 shows that their trade is dominated in value terms by primary products. Over the period between 1980 and 1998 there was some growth in their low technology exports in terms of value and to some extent medium technology exports. However, in terms of world trade they are the most competitive in primary products with approximately 5 per cent of total trade. Their share for the rest of the products is below 1 per cent. Therefore, these countries have a large share in products that are decreasing in importance in world trade.

Figure I.4. Composition of world exports by product type, 1980-1998



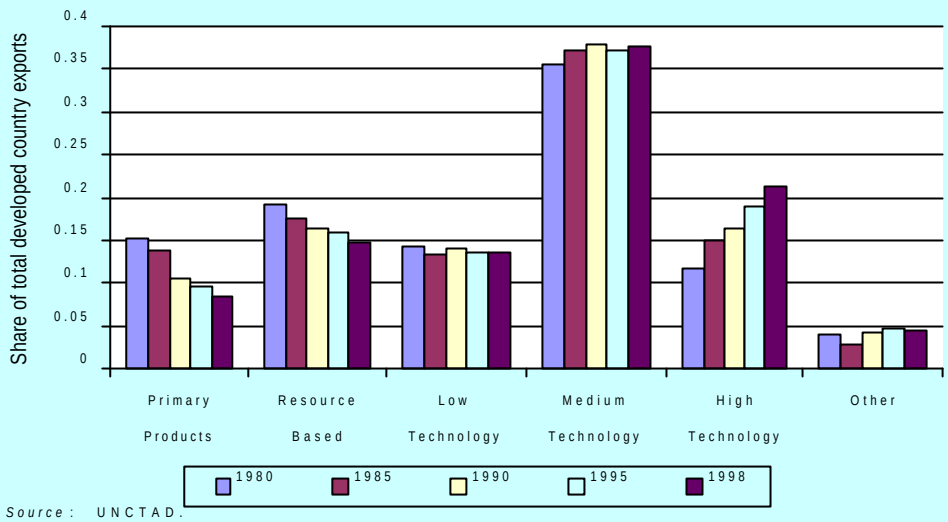
Source: UNCTAD.

This poor trade performance of LDCs also depends upon domestic factors, such as structural rigidities and bottlenecks that hamper the transition to manufactures and processed products (associated with insufficient human capital, missing capital markets, lacking infrastructure). Given the long-run tendency for relative commodity prices to deteriorate, the terms of trade of LDCs will continue to worsen if they remain locked in primary sector export production (figure I.8).

Table I.1 provides the export concentration indices and number of exported products for selected LDCs. Despite sustained efforts to diversify their export base, the number of products exported by LDCs is very small (especially for Pacific LDCs) while for others it is well below the 1998 non-LDC world average. Also, for certain LDCs, the export concentration index is close to 1 (Kiribati, Zambia and Vanuatu) and much higher than the average of non-LDC countries.

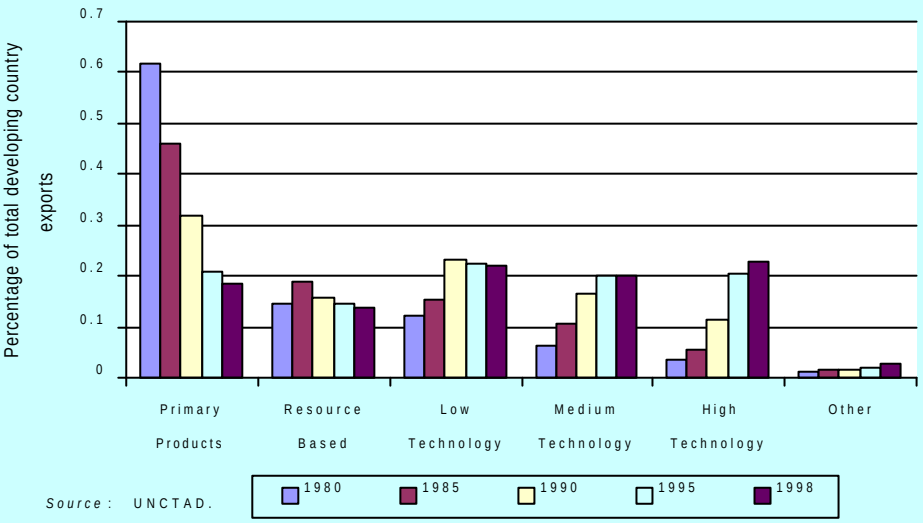
The absence of change in structure of LDC exports in the periods examined confirms that the level of economic restructuring and adaptation to the changes in the global economies was very limited. This lack of economic dynamism also largely explains why, over the years, many LDCs were not able to significantly alter the pre-colonial pattern of export concentration in agricultural or mineral products (table I.2).

Figure I.5. Composition of developed country exports by product type, 1980-1998



Source: UNCTAD.

Figure I.6. Composition of developing country exports by product type, 1980-1998



Source: UNCTAD.

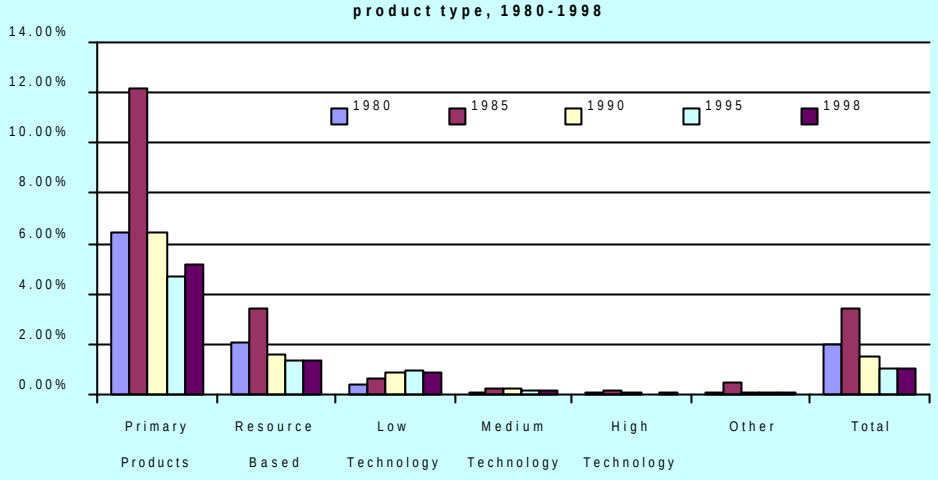
B. Patterns of protection

Tables I.3 and I.4 present a picture of the pattern of protection facing LDC exports. The tables were developed using a methodology that identifies the key products LDCs export to a range of geographic markets. Table I.3 shows the most favoured nation tariff rates. Table I.4 shows the applied tariff rates, which are those that apply to exports taking into account both non-preferential and preferential trading arrangements. The tables clearly show that the highest levels of protection faced by LDCs is in South Asia. Furthermore, the two tables give a measure of the value of preferences to LDCs, both in the context of non-reciprocal (Quad rates) and reciprocal agreements (Sub-Saharan Africa), which is defined as the difference between the MFN and applied rates.

Preferential market access for developing countries has its roots in the idea that unilateral preferential trade liberalization favours development.[2] The developmental-oriented trade measures initially sought by developing countries were inward-oriented. For instance article XVIII of the GATT, allowed developing countries to increase their tariff bindings and introduce quantitative restrictions if these measures served a developmental purpose. Later, in the 1960s and early 1970s, the inward oriented-approach was gradually paralleled by outward-oriented demands for preferential

market access in developed markets. The importance of export-oriented strategies for developing countries, as evidenced by the experience of Asian countries, led to a rethinking of the international development strategies. As early as 1964, the first UNCTAD conference in Ge-

Figure 1.7. Developing Africa's exports as a share of world exports by product type, 1980-1998



Source: UNCTAD.

Table I.1. Export concentration indicators for selected LDCs, 1980s-90s

Country	1980s[3]		1990s[3]	
	Export concentration index[1]	Number of commodities exported[2]	Export concentration index[1]	Number of commodities exported[2]
Bangladesh	0.36	44	0.32 [i]	83
Central African Republic	0.49	17	0.44	20
Haiti	0.26	35	0.25	30
Kiribati	0.75	2	0.73 [g]	5
Madagascar	0.47[d]	48	0.26	63
Malawi	0.64	37	0.68 [g]	52
Nepal	0.36	27	0.46	37
Samoa	0.55[b]	10	0.4 [e]	9
Togo	0.51[c]	36	0.47[e]	47
United Republic of Tanzania	n/a	n/a	0.27[h]	76
Vanuatu	0.84 [d]	7	0.4 [f]	15
Zambia	0.82 [a]	30	0.83 [g]	85
Non-LDC world average			0.20[i]	182[j]

Source: UNCTAD (2000).

1. Export concentration index takes values between 0 (minimum concentration) and 1 (maximum concentration). It is calculated using the following formula: $Ex_i = \frac{\sqrt{\sum_i^n \left(x_i/X\right)^2}}{\sqrt{1/n}}$, where n equals 239, the number of products at the three-digit SITC, Revision 2 level, and (x/X) represents the share of good in total exports.
2. Number of products exported at three-digit SITC, Revision 2 level; this figure includes only those products that are greater than $ 100,000 or more than 0.3 per cent of the country's total exports.
3. If otherwise stated, data are for 1988 and 1997.

a. 1979
b. 1980
c. 1981
d. 1984
e. 1990
f. 1994
g. 1995
h. 1996
i. 1998

Table I.2. Selected LDC primary exports, 1999

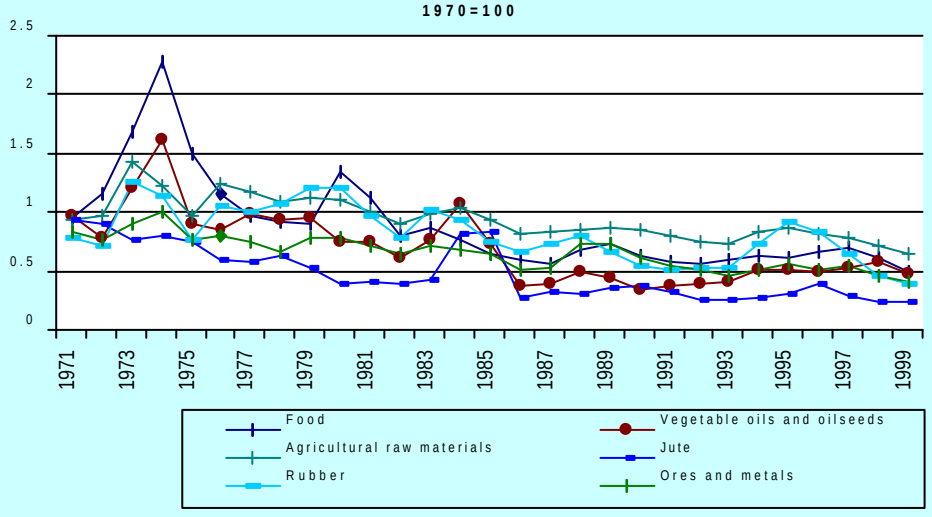
	First product	Per cent	Second product	Per cent
Dominant agricultural export				
Sao Tome & Principe	Cocoa	96.4	n/a	
Uganda	Coffee	69.0	Cotton	20.2
Malawi	Tobacco	63.2	Tea	6.7
Solomon Islands	Timber	59.2	Fish products	21.2
Myanmar	Food & live animals	50.6	Crude materials (inedible)	28.2
Guinea-Bissau	Cashew nuts	85.8	Wood	6.3
Burundi	Coffee	80.7	Tea	7.8
Rwanda	Coffee	74.4	Tea	10.0
Ethiopia	Coffee	63.5	Hides	13.2
Chad	Cotton	59.4	Live cattle	10.9
Mauritania	Fish	56.3	Iron ore	41.8
Mali	Cotton fibre	55.5	Live animals	19.8
Afghanistan	Dried fruits and nuts	51.3	Carpet and rugs	13.1
Maldives	Fish products	59.4	Apparel and clothing	17.4
Kiribati	Copra	63.0	Fish	6.2
Gambia	Groundnuts	54.1	n/a	
Samoa	Coconut products	70.3	Kava	6.7
Dominant mineral exports				
Yemen	Petroleum	95.3	Animals	2.5
Angola	Petroleum	74.6	Diamonds	2.5
Guinea	Bauxite & alumina	59.9	n/a	
Liberia	Iron ore	55.1	Rubber	28.0
Zambia	Copper	52.0	Cobalt	11.3
Niger	Uranium	51.9	n/a	
Sierra Leone	Diamonds	50.6	Titanium	5.7
Dominant manufactured export				
Bangladesh	Clothing	62.7	n/a	
Lesotho	Clothing	54.8	n/a	
Nepal	Basic manufactures	51.6	Misc. manufactures	32.7

Source: UNCTAD.

neva advanced the idea of a special chapter on trade and development to be added to the GATT agreement. With this addition, the requirement of reciprocity in preferential trade negotiations was abandoned for developing countries. Furthermore, in response to UNCTAD's Resolution no. 21/1968 laying down the framework for a Generalized System of Preferences for developing countries, many developed countries introduced national schemes of preferential market access for developing countries.

During the 1970s, several advanced economies introduced preferential market access schemes for developing

Figure I.8. Relative commodity price indices to manufactures price index, 1970=100



Source: UNCTAD (2000).

Table I.3. Weighted MFN tariff rates facing LDC exports, 1999
(in per cent)

Description	Developed countries	South Asia	Middle East and North Africa	Latin America and the Caribbean	Europe and Central Asia	East Asia and The Pacific	Sub-Saharan Africa	Quad	World
Agricultural and fishery products	**7.11**	**28.52**	**7.55**	**15.77**	**16.60**	**14.05**	**16.45**	**6.77**	**10.06**
Crustaceans (live)	7.74	16.40	15.06	30.02	19.79	9.61	36.71	7.83	8.07
Other fish	8.13	13.76	12.83	14.61	9.74	22.73	19.77	8.32	10.90
Edible fruit and nuts	6.92	38.04	12.95	17.04	8.95	6.41	32.93	7.04	26.85
Coffee and substitutes with coffee	1.43	35.00	16.34	12.71	14.44	0.88	7.92	1.44	3.44
Oil seeds and miscellaneous grain, seeds and fruits	0.51	33.56	8.14	11.20	8.01	14.07	17.32	0.43	4.60
Other agricultural and fishery products	14.91	13.80	29.19	18.63	21.96	3.16	26.08	15.49	15.40
Minerals and fuels	**0.05**	**6.47**	**14.40**	**5.90**	**0.66**	**4.51**	**11.19**	**0.05**	**2.91**
Ores, slag and ash	0.00	5.00	12.00	n.e.	0.00	1.30	n.e.	0.00	0.09
Crude and refined petroleum oil	0.10	30.00	20.00	6.02	3.85	4.54	15.73	0.11	3.64
Other minerals and fuels	0.00	5.00	n.e.	5.20	0.00	3.00	18.23	0.00	2.21
Manufactures	**7.52**	**25.33**	**12.61**	**10.79**	**8.11**	**2.40**	**10.69**	**7.73**	**7.54**
Rubber, leather and footwear products	7.78	13.05	12.74	11.89	14.11	1.38	21.82	7.68	6.44
Wood and wood products	0.88	7.69	11.54	18.11	3.23	1.96	13.51	0.84	2.34
Cotton products	0.32	4.54	11.90	8.38	0.00	1.96	2.99	0.00	2.15
Knitted or crocheted articles	13.88	35.69	16.04	27.53	21.30	1.90	68.35	13.87	13.95
Non-knitted or crocheted articles	11.86	35.46	13.32	24.90	22.99	6.29	26.48	11.80	11.96
Diamonds	0.00	40.00	4.17	4.54	5.00	0.34	n.e.	0.00	0.01
Other manufactured products	1.70	34.51	11.20	7.51	1.93	2.77	13.35	1.68	2.84
Other products not elsewhere specified	6.11	29.62	5.23	11.45	8.29	7.56	10.18	5.14	10.26
Total by geographical region	6.75	25.90	8.88	10.11	11.49	4.49	12.39	6.83	7.34

Source: UNCTAD and World Bank (2001).

n.e. = no exports.

countries. The European Union and Japan introduced their GSP programmes in 1971, Canada in 1974, and the United States in 1976. Since these tariff preferences contradicted the general MFN principle, as embodied in GATT's article I, GSP schemes required a waiver from the main GATT rules. The GSP schemes were firstly introduced into the GATT framework in 1971, through a ten-year waiver. This waiver was superseded in 1979 by the Enabling Clause, making the Generalized System of Preferences (GSP) a perrenial feature in the multilateral trading system. Currently, there are 15 GSP programmes throughout the world that have been introduced over the years, which includes one programme for all member States of the European Union (UNCTAD, 1998a).

The number of GSP schemes increased in the 1980s as many other developed countries introduced bilateral schemes. Under the GSP, developed countries (GSP donor countries) applied, on a voluntary and unilateral basis, preferential tariff rates to imports from developing countries (GSP beneficiaries). Apart from the Quad countries, numerous other countries have introduced preferential market access schemes for LDCs (WTO, 2001b). However, they usually exempt many products deemed sensitive by donor countries (such as agricultural and textile products), and rules of origin differ markedly from one scheme to another.

Despite these policy initiatives the 1990s were marked by substantial erosion of the LDC

Box I.2. The Generalized System of Preferences (GSP)

The concept of GSP originated in the work of UNCTAD with the objective of introducing a harmonized preferential regime across donor countries. The Generalized System of Preferences or "GSP" grants products originating in developing countries lower tariff rates than those normally enjoyed under Most-Favoured-Nation status as a special measure to increase developing countries' export earnings and promote their development.

The GSP is defined in UNCTAD Resolution no. 21/1968, and was permanently introduced into the WTO framework by the Decision on "Differential and More Favourable Treatment, Reciprocity, and Fuller Participation of Developing Countries" or the "Enabling Clause" of 1979. The main principles underlying the GSP schemes are:

- Generality (all developing countries are beneficiaries);
- Non-reciprocity (no obligation for developing countries to reciprocate);
- Non-discrimination among beneficiairies.

Source: UNCTAD.

Table I.4. Weighted applied tariff rates facing LDC exports, 1999
(in per cent)

Description	Developed countries	South Asia	Middle East and North Africa	Latin America and the Caribbean	Europe and Central Asia	East Asia and The Pacific	Sub-Saharan Africa	Quad	World
Agricultural and fishery products	**2.09**	**28.32**	**7.55**	**14.83**	**11.91**	**13.98**	**10.96**	**1.65**	**5.99**
Crustaceans (live)	0.65	16.40	15.06	30.02	14.34	9.40	11.49	0.66	1.83
Other fish	1.79	13.76	12.83	14.61	9.63	22.73	19.29	1.82	5.99
Edible fruit and nuts	0.09	38.04	12.95	17.04	8.89	6.41	23.49	0.03	23.99
Coffee and substitutes with coffee	0.00	35.00	16.34	12.71	7.40	0.88	4.51	0.00	1.66
Oil seeds and miscellaneous grain, seeds and fruits	0.38	33.35	8.14	11.19	5.77	14.07	7.60	0.31	4.41
Other agricultural and fishery products	5.11	13.04	29.19	16.79	18.41	3.16	7.82	5.25	6.94
Minerals and fuels	**0.00**	**6.47**	**14.40**	**5.90**	**0.66**	**4.51**	**9.32**	**0.00**	**2.85**
Ores, slag and ash	0.00	5.00	12.00	n.e.	0.00	1.30	n.e.	0.00	0.09
Crude and refined petroleum oil	0.00	30.00	20.00	6.02	3.85	4.54	15.41	0.00	3.61
Other minerals and fuels	0.00	5.00	n.e.	5.20	0.00	3.00	10.78	0.00	2.19
Manufactures	**4.37**	**24.65**	**12.61**	**10.29**	**7.98**	**2.38**	**7.43**	**4.50**	**5.00**
Rubber, leather and footwear products	2.75	13.00	12.74	11.54	13.80	1.35	17.37	2.59	3.39
Wood and wood products	0.36	7.68	11.54	18.11	3.19	1.96	5.76	0.31	2.18
Cotton products	0.32	4.54	11.90	8.38	0.00	1.96	1.04	0.00	2.10
Knitted or crocheted articles	8.32	35.69	16.04	26.28	21.14	1.84	23.97	8.37	8.45
Non-knitted or crocheted articles	7.19	35.46	13.32	20.77	22.86	6.24	13.40	7.21	7.36
Diamonds	0.00	40.00	4.17	4.54	5.00	0.34	n.e.	0.00	0.01
Other manufactured products	0.49	34.51	11.20	7.51	1.89	2.73	8.85	0.21	1.95
Other products not elsewhere specified	3.29	28.78	5.23	10.68	7.94	7.48	7.01	2.09	8.29
Total by geographical region	**3.45**	**25.47**	**8.88**	**9.69**	**9.43**	**4.47**	**8.79**	**3.43**	**4.88**

Source: UNCTAD and World Bank (2001).

n.e. = no exports.

preferential market access. One main factor that contributed to this situation was the implementation of the Uruguay Round results. Despite efforts from donor countries to expand the current coverage of their GSP schemes for LDCs, there are still a number of factors that negatively affect their exports. Thus, in terms of product coverage, at HS6 level there are still a significant number of tariff lines that continue to face ad-valorem or specific tariffs in Quad countries (table I.5).

Table I.5. Structure of LDC exports and protection in Quad countries, 1999

	Canada	European Union	Japan	United States
Total LDC imports [a] (1)	227 677	9 874 807	1 019 120	6 962 416
Total imports in identical product lines [a] (2)	83 670 842	637 766 105	126 378 101	528 279 235
Total imports [a] (3)	211 085 424	783 684 206	305 438 116	1 015 143 866
LDC share of competitive imports ((1) / (2))	0.27%	1.55%	0.81%	1.32%
LDC share of total imports ((1) / (3))	0.11%	1.26%	0.33%	0.69%
Total tariff lines (HS6)	758	2 222	545	946
in lines with protection	201	55	74	335
of which above 5 per cent	181	51	36	282
LDC Exports entering duty free [a]	103 260	9 566 647	498 534	3 596 270
LDC Exports dutiable [a]	124 417	308 160	520 586	3 366 146
LDC Exports dutiable above 5 per cent [a]	123 827	308 134	226 274	3 272 917
Share of LDC exports facing protection	54.60%	3.12%	51.10%	48.30%
Share of LDC exports facing tariff > 5 per cent	54.40%	3.12%	22.20%	47.00%
Share of lines with tariff	18.50%	4.20%	12.10%	17.10%
Share of lines with tariff > 5 per cent	12.80%	3.80%	7.60%	14.10%

Source: UNCTAD.

[a] Thousands of US dollars.

C. Outline of the study

In response to the urgent need to assist LDCs better integrate themselves into the world economy a number of trade initiatives have been advanced. Of these the most notable has been the Everything But Arms (EBA) initiative of the European Union. This was accompanied by a number of additional market opening exercises from other countries such as Japan, Canada and New Zealand. The focus of this study is the economic impact of the EBA initiative and possible impacts if the initiative was to be adopted by Canada, Japan and the United States, the remaining members of the Quad.

The next chapter reviews the existing non-reciprocal preference schemes offered by Canada, Japan, the United States and the European Union. It places in context the current efforts to enhance market access. Chapter III uses a computable general equilibrium model (CGE) to simulate the impacts of duty and quota free market access for LDCs into the European Union and the Quad. This part of the study advances the research into the development effects of trade preferences to LDCs in

many respects. First, it accounts for preferential trading agreements. Second, it isolates a number of LDCs for analysis, which is combined with a regional aggregate of Sub-Saharan Africa. The regional aggregation of the model also allows for the analysis of the impacts on third countries that are neither LDCs, nor members of the Quad. Third, the product aggregations also allow for an analysis of sectors that are of importance to LDCs. Despite these advances, CGE models have limitations as a research methodology, such as the high level of disaggregations. In order to account for some of these problems, Chapter IV analyses the possible impacts at a disaggregated level to identify both key products and key countries that will be affected by these types of initiatives.

Chapters V and VI are two case studies on Bangladesh and Mauritius. These case studies complement the computable general equilibrium and disaggregated analysis. Bangladesh was chosen because of its importance as a LDC exporter. It has taken advantage of the available market access in the European Union, but its efforts to export to the United States remain partially frustrated due to a number of barries to trade. Mauritius was selected because it is an non-LDC member of the African Caribbean and Pacific countries that receive market access into the European Union on preferred terms. Mauritius has been able to take advantage of this access by developing first a sugar industry and then a garment industry. The EBA initiative for LDC poses a threat to Maritius because it erodes its secure market into the European Union. Chapter VII summarizes the principal conclusions of the study.

NOTES

[1] Product definition are contained in Bora (2001).

[2] North-South trade preferences existed before the introduction of GSP schemes in the form of colonial preferential trading schemes (see for instance the scheme between United Kingdom and the Commonwealth countries or the ones regulating trade between France and its ex-colonies). However, unlike the GSP schemes, these colonial preferences were reciprocal.

CHAPTER II

NON-RECIPROCAL AGREEMENTS, LDCs AND THE QUAD COUNTRIES

A. Introduction

This chapter reviews the experience of developing countries, and LDCs in particular with non-reciprocal agreements where the donor country is either Canada, the European Union, Japan or the United States. A number of key issues arise with respect to the pattern of trade and protection in the bilateral relationships of these countries with LDCs. In particular, there is a wide range of preference offered, in terms of products and countries. Also, given the specific features of these schemes, it appears that the relationship between the value of LDC exports and the size of the preference margin is not always positive. These issues are important in two ways. First, they assist in identifying the base from which complete duty and quota free access is to be provided. Clearly, countries that offer lower preference margins on a narrow range of products will find it politically difficult to implement complete market access. Second, this chapter will also assist in identifying both the sources of gains and losses and the degree of structural adjustment that countries giving trade preferences may experience in implementing complete market access.

B. Canada

Canada has, as have other developed countries, over the years introduced several non-reciprocal preferential schemes to improve market access for developing countries. Apart from the Generalized Preferential Tariff (GPT) regime, Canada currently grants several preferential tariff regimes (table II.1). Out of these, several are non-reciprocal: the Commonwealth Caribbean Countries Tariff (CCCT), the Generalized Preferential Tariff (GPT) and the Least Developed Country Tariff (LDCT). The British Preferential Tariff (BPT) has been terminated (WTO, 1998).[1]

Table II.1. Canada: Import duties by tariff regime, 1998

	MFN	UST	MT	MUST	CT	CIAT	GPT	LDCT	CCCT	AUT	NZT
Number of non-ad valorem lines	379	111	276	378	253	327	314	312	147	364	349
Share of duty-free lines (%)	45	98	77	68	84	92	60	82	86	47	48
Average of dutiable rates[b]	14	202	19	19	27	43	16	29	34	14	14
Average ad valorem tariff (%)	7.7	3.0	4.4	6.1	4.1	3.5	6.2	5.0	4.8	7.3	7.3
Of which:											
Agriculture and livestock (ISIC 11)[c]	8.7	5.2	5.5	8.8	6.0	7.4	7.7	6.7	5.5	8.2	8.2
Crude petroleum and gas (ISIC 22)	6.3	0.0	1.0	1.0	0.0	0.0	2.5	0.0	0.0	6.3	6.3
Food products (ISIC 311)[c]	28.3	23.4	23.5	28.0	24.0	26.8	27.2	26.1	24.1	28.0	28.0
Animal feeds and other food products (ISIC 312)[c]	37.3	30.7	31.7	37.3	31.2	33.6	35.4	34.0	31.5	37.2	37.2
Beverages (ISIC 313)[c]	11.1	4.8	2.9	11.1	3.0	10.3	10.3	9.6	4.8	10.6	10.6
Tobacco products (ISIC 314)	9.8	0.0	0.0	9.8	0.0	6.5	6.5	5.9	0.0	9.8	9.8
Textiles (ISIC 321)	11.1	0.0	5.7	11.0	5.7	0.0	9.7	7.8	9.6	10.4	10.4
Clothing (ISIC 322)	17.2	0.0	8.9	16.6	8.8	0.1	16.1	14.3	15.5	15.0	15.0
Footwear (ISIC 324)	13.0	0.0	6.3	6.7	9.6	0.0	12.3	10.5	12.3	10.8	10.8
Furniture (ISIC 332)	6.3	0.0	1.8	2.4	0.0	0.0	4.1	1.6	0.0	6.3	6.3
Rubber products (ISIC 355)	8.1	0.0	2.2	2.6	2.6	0.0	5.2	2.5	2.6	5.9	5.9
Plastic products (ISIC 356)	7.1	0.0	2.7	3.2	2.5	0.0	4.0	0.0	0.0	7.1	7.1
Shipbuilding and repairing (ISIC 3841)	11.1	0.0	4.4	4.7	0.0	0.0	9.5	0.0	0.0	11.1	11.1

Source: WTO (1998).

[a] Duties consist of ad valorem tariff lines, available ad valorem equivalents of non-ad valorem lines and, if these are not available, ad valorem components of non-ad valorem lines.
[b] Average of non-duty-free lines.
[c] Includes both in-quota and out-of-quota tariffs.
Note: The total number of lines is 8,073.

MFN: Most favoured nation
UST: United States Tariff
MT: Mexico Tariff
MUST: Mexico-United States Tariff
CT: Chile Tariff
CIAT: Canada-Israel Agreement Tariff
GPT: Generalized Preferential Tariff
LDCT: Least Developed Country Tariff
CCCT: Commonwealth Caribbean Countries Tariff
AUT: Australia Tariff
NZT: New Zealand Tariff

1. Trade provisions

a. General Preferential Tariff and Least Developed Country Tariff

Canada's GPT scheme provides preferential tariff treatment for imports from developing countries and countries in transition since 1974. In March 1994, Canada's GPT legislation was extended for ten years. While the scheme now includes most industrial and agricultural items, textiles, clothing and

footwear are only partly covered, and agricultural products under tariff quotas are excluded. Further reforms to the GPT began in January 1996 to reduce most GPT rates to levels at least two-thirds of applied MFN rates by 1999. A revision of Canada's GPT, initiated in 1994, was intended to stem the erosion of preferences in the wake of the Uruguay Round and NAFTA. The product coverage was also extended by approximately 220 lines (WTO, 1998).

In late 1998, Canada examined improvements to the preferential market access offered to least developed countries. Imports from least developed countries were subject to the LDCT, which was available on all tariff lines covered by the General Preferential Tariff. Some 82 per cent of lines were duty free under the LDCT. This included expanding the duty-free product coverage under the treatment to cover all products except textiles, apparel and footwear and the out-of-quota tariff rates for tariffied agricultural goods. Although safeguard measures may be applied, unlike other GSP schemes, the Canadian GPT does not have a graduation mechanism. The most recent initiative was taken by Canada in 2000, when 570 new 8-digit tariff lines were added to the LDCT. Approximately 90 per cent of tariff lines are now granted duty-free access for LDCs (DFAIT, 2000). However, the implementation of the quota free treatment was not mentioned and a number of products, including the textile and clothing products, are not covered by the measure.[2]

b. Commonwealth Caribbean Countries Tariff

Imports from 18 Commonwealth Caribbean countries are subject to the recently reviewed CCCT. With the introduction of the 1998 Customs Tariff, product coverage under the duty-free provisions of the CCCT was expanded to include all industrial products with the exception of textiles, apparel and footwear. The CCCT provides duty-free access on more than 85 per cent of all tariff items. In 1997, tariffs on dutiable items averaged 34 per cent. During 1997, 95 per cent of total imports from CCCT countries entered Canada duty-free. The trade-weighted tariff average on dutiable items imported from CCCT countries in 1997 was 8.9 per cent (WTO, 1998).

2. Trade patterns

In 1999, Canadian imports from LDCs totalled over $220 million, of which 55.25 per cent were eligible for duty-free entry. Table II.2 provides the HS6 tariff lines that grant better-than-MFN and better-than-GPT market access to LDC exports. However, not all products eligible for LDCT rates actually receive preferential access. In 1998, the latest year for which data were available, the GPT utilization rate (imports benefiting from GPT rates relative to total GPT eligible imports) was 59.2 per cent.[3] Out of 748 HS6 tariff lines with non-zero LDC exports in 2000, 312 enjoyed a preferential margin vis-à-vis the MFN applied tariff and 208 LDC exports (at HS6 level) received preferences vis-à-vis the GPT tariff. Out of the 312 HS tariff lines with an MFN preferential margin for LDCs, 21 faced positive tariffs (table II.2), all the others being duty-free.

The share of LDC imports in Canada's total imports was 0.25 per cent in 1998. In this context the recent initiative of Canada to expand, in September 2000, the list of LDC products eligible for duty-free entry is commendable. Yet, LDC products are still facing tariffs on more than 700 HS8 lines, on some products exceeding 250 per cent (table II.3).[4] Obviously such high tariffs have a prohibitive effect on LDC exports. LDCs are not able to export products under these lines, although they export similar products at a higher level of aggregation.

Another indicative figure is the share of LDC exports receiving preferences, compared to the

MFN treatment. Thus, when compared to MFN market access, the current preferences enjoyed by LDCs remain very small, only 6.75 per cent of their HS6 total exports to Canada enjoying preferential market access. This rather low share suggests that there is little matching between LDCT preferences and LDC export capacity. This low share may also be due to the fact that more than 40 per cent of LDC exports are eligible for zero MFN tariffs.

Table II.2. LDC exports to Canada receiving better than MFN tariffs, 1999

HS	Description	World exports ($000)	LDC exports ($000)	LDC share (%)	MFN rate	LDCT rate [a]	LDC margin [a]
190530	Sweet biscuits; waffles and wafers	123 819	1	0	2.43	1.21	1.22
940190	Parts	1 261 070	82	0.01	5.88	3.88	2.00
961210	Ribbons	51 454	2	0	9.88	7.75	2.13
060390	Cut flowers and flower buds	5 837	8	0.14	4.83	2.67	2.16
230990	Animal feeding	153 316	230	0.15	3.25	1.05	2.20
151790	Margarine	22 073	2	0.01	7.38	4.63	2.75
950699	Toys, games & sports requisites;	126 318	8	0.01	5.50	2.21	3.29
611300	Garments	2 729	1	0.04	10.17	6.83	3.34
650590	Headgear and parts thereof	54 798	3 103	5.66	9.33	5.17	4.16
621133	Apparel	24 766	906	3.66	14.50	10.25	4.25
621710	Apparel	3 483	2	0.06	12.25	8.00	4.25
580610	Special woven fabrics	3 164	1	0.03	9.67	5.33	4.34
852812	Reception apparatus for television	642 076	170	0.03	4.82	0.36	4.46
621143	Apparel	24 995	570	2.28	12.00	6.83	5.17
621149	Apparel	3 980	2	0.05	11.50	6.33	5.17
630790	Blankets and travelling rugs	63 479	6	0.01	13.31	7.31	6.00
210690	Miscellaneous edible preparations	361 078	10	0	6.96	0.86	6.10
210390	Miscellaneous edible preparations	99 153	11	0.01	9.50	3.17	6.33
640419	Footwear	88 343	115	0.13	11.38	5.00	6.38
630710	Textile articles	17 261	1	0.01	19.00	9.50	9.50
611010	Knitted apparel	55 187	611	1.11	20.50	10.25	10.25

Source: UNCTAD.

[a] Aggregated from both LDCT-covered and non-covered products. For LDCT covered-products the LDCs have duty-free and quota-free market access. Tariff rates refer to year 2000.

Table II.3. Canadian tariff peaks with no LDC preference, 2000

Product code (HS)	Short description	Applied MFN rate [a] (%)
22029043	Mineral water	263
19012012	Preparation of cereal	253
19012022	Preparation of cereal	251
21069032	Miscellaneous edible preparations	218
21069034	Miscellaneous edible preparations	218
23099032	Residues & waste from the food industry	211

Source: UNCTAD.

[a] Out-of-quota MFN tariffs. In-quota tariffs are zero.

C. The European Union

The European Union has been the main actor in the trade and development nexus, internally by removing numerous barriers to imports and externally by developing its network of free trade agreements (FTAs). As a result of these agreements, the European Union now trades duty- and quota-free with more than 30 countries in Eastern Europe, Africa, Latin America, and Asia.[5] Apart from reciprocal free trade agreements, it has also initiated two non-reciprocal trade arrangements: the GSP and ACP trade schemes.

1. GSP

a. Trade provisions

The GSP Programme of the European Union is quite different from that of other Quad countries.[6] Over time, the European Union scheme underwent a number of considerable changes. The programme is divided into four product groups. The European Union GSP scheme grants preferences for a given product as a percentage reduction of the MFN duty rates. This percentage depends on a given product's "sensitivity", which is determined by the situation of the sector manufacturing the same product in the Community. According to its degree of sensitivity, each product is classified as belonging to one of four groups.[7] Unlike the mechanism described above, for some countries (LDCs and countries negatively affected by drug production) duty free access to the European Union market is granted for a larger number of products. Although the pre-EBA LDC market access to the European Union was one of the broadest, more than 900 products (at HS8 level) were subject to ad-valorem or specific duties. Table II.5 provides a selection of HS 2 products and the number of dutiable lines, faced by LDCs exports in 2000 to the European Union.

Table II.4. Non-ACP LDC products receiving less-than-ACP treatment, 2000

HS 2	Description	No. of lines (CN8)
01	Live animals	3
02	Meat and edible meat offal	126
03	Fish & crustacean	80
07	Edible vegetables	6
08	Edible fruit and nuts	1
10	Cereals	23
11	Malt, starches, wheat gluten	61
12	Oil seed, oleaginous fruits	4
15	Animal and vegetable fats & oils	1
16	Preparation of meat, fish or crustaceans	14
17	Sugars and sugar confectionery	8
23	Residues & waste from the food industry	17
	Total	**344**

Source: UNCTAD.

Table II.5. Selected LDC exports facing tariffs in the European Union, by major product category, 2000

HS 2	Number of dutiable (HS6) lines	Description
11	29	Malt, starches, wheat gluten
02	27	Meat and edible meat offal
04	20	Dairy prod; birds' eggs; natural honey
19	15	Flour, starch, pastry products
17	14	Sugars and sugar confectionery
10	12	Cereals
22	11	Beverages, spirits and vinegar
08	10	Edible fruit and nuts

Source: UNCTAD.

Since 1995, the European Union has eliminated all quantitative limitations. Yet, its GSP scheme maintained the "*graduation mechanism*" under which the benefit of the scheme is phased out for specific sec-

tors or countries that have reached a degree of competitiveness where they increased their exports even without enjoying GSP treatment. Moreover, the European Union GSP scheme contains safeguard measures that may suspend the preferential market access. When such measures are applied, MFN rates are reinstated on imports from one or more beneficiary country.

b. Trade patterns

The European Union market is the most important for LDC exports in terms of export value. In 1999, it absorbed 37 per cent of total LDC exports. Among the 49 LDCs, 15 are dependent on this market, as over 50 per cent of their exports are directed there. In 1998, 52 per cent of total LDC exports to the European Union entered MFN duty-free. Out of total LDC exports, 44.7 per cent received better than MFN. Moreover, only 3 per cent of existing LDC exports still face a tariff into the European Union. Thirty-nine LDCs have benefited from preferential market access under the ACP regime, while 9 LDCs were under the GSP scheme.

Since 1998, the preferential market access for LDCs in the European Union has been enhanced so as to provide them with ACP-equivalent market access. Yet, there are still notable differences between the two preferential regimes. Table II.4 provides the number of tariff lines for which non-ACP LDCs receive less preferential market access, compared to ACP LDCs.

2. ACP

a. Trade provisions

Before EBA, the ACP States were accorded through the Lome Convention the most preferential and favoured terms of access to the European market. Virtually all ACP exports enter the European Union free of any tariff or quota restrictions – roughly 94 per cent of total ACP exports enter without restriction (100 per cent in the case of industrial products and 80 per cent for agricultural products). In addition, attached to the Lome Convention are four commodity protocols, covering beef, sugar, bananas and rum, which provide certain ACP countries with quota-free access to the European Union. The Convention also guaranteed certain export earnings from the sale of raw materials (STABEX) and minerals (SYSMIN). In the new Cotonou Agreement (the post-Lome ACP-EU trade regime), since there are no trade restrictions on rum, there was no need for the Lome rum protocol to be extended. The European Union also intends to dismantle the STABEX and SYSMIN instruments in the new trading regime.

Another important feature of the post-Lome regime is the creation (by 2008) of reciprocal trade arrangements between the ACP countries and European Union. Although ACP LDCs have an incentive not to enter in reciprocal free trade agreements with the European Union, most of them are part of existing regional agreements whose ACP members have strong incentives to conclude free trade agreements with the European Union by 2008. However, to redress this apparent disincentive to reciprocate, article 29 (b) and article 84 of the Cotonou Agreement strongly encourage the ACP LDCs to fully participate in regional cooperation.

b. Trade patterns

The ACP-EU trade relations have been very specific with regard to certain commodities of special interest to a number of ACP countries. These products (agrifood and mineral products) were

dealt with in separate protocols of the Lome Agreements. Under these protocols, the ACP and European Union agreed on a 'managed' trade regime that took into account the development needs of ACP countries. Thus, for these products the European Union committed itself to buy minimum quantities from ACP countries at European Union intervention prices for agricultural and food products. In addition, support schemes (STABEX and SYSMIN) were introduced to stabilize the prices and export revenues of ACP countries that were relying on these major exports.

Although the shares of LDC exports are very small under the current market access (table II.6), further liberalization measures are expected to produce significant changes in the export of certain products, including: sugar, bananas and rice.

Table II.6. LDC exports of sensitive products to the European Union, 1999

HS 6	Description	LDC	Value ($000)
170111	Raw cane sugar	Malawi	17 502
		Tanzania	6 826
		Madagascar	2 821
		Zambia	1 475
		Myanmar	272
LDC share of the EU imports = 2.95%			
100630	Semi-milled or wholly milled rice	Madagascar	399
		Bangladesh	4
		Maldives	1
100620	Husked (brown) rice	Madagascar	26
		Myanmar	12
LDC share of the EU imports = 0.11%			
80300	Bananas	Rwanda	144
		Uganda	105
		Guinea	61
		Cape Verde	11
		Togo	7
		Burundi	5
		Equatorial Guinea	4
LDC share of the EU imports = 0.02%			
220840	Rum and tafia	Comoros	227
		Haiti	159
		Gambia	8
		Guinea	7
		Cape Verde	7
		Tanzania	1
		Nepal	1
LDC share of the EU imports = 0.12%			
020230	Boneless bovine meat	Uganda	217
020220	Meat of bovine animals	Uganda	3
LDC share of the EU imports= 0.06%			

Source: UNCTAD.

3. EBA

In September 2000 European Union Trade Commissioner, Pascal Lamy, formally announced the intention to grant duty-free and quota-free access for all goods (with the exception of arms) originating in least developed countries. EBA follows a series of initiatives taken by the European Union after the 1996 WTO Ministerial Conference in Singapore when developed countries committed themselves to improve market access for LDC products. In 1998, the European Union granted non-ACP LDCs preferences similar to those enjoyed by ACP countries through their ACP-EU preferential relations. In June 2000, the European Union expressed its intention to grant duty-free access for essentially all products from all LDCs, by the end of multilateral trade negotiations or by 2005, at the latest.

a. Trade provisions

The EBA proposal was enacted by the Council Regulation No. 416/2001 of 28 February 2001, amending EC Regulation No. 2820/98 applying a multiannual scheme of generalized tariff prefer-

Table II.7. EU-EBA: The pattern of liberalization

HS 2 code	Description	Number of liberalized products (8 digit level)	Per cent of liberalized tariff lines
02	Meat and meat products	173	18.82
04	Diary products	166	18.06
22	Beverages, spirits and vinegar	103	11.21
11	Milled products	77	8.38
20	Preparation of vegetables and fruits	74	8.05
10	Cereals	48	5.22
17	Sugars and sugar confectionery	45	4.90
19	Preparation of cereals	38	4.13
01	Live animals	30	3.26
23	Residues & waste from food industry	30	3.26
16	Prep of meat, fish or crustaceans	28	3.05
08	Fruits	25	2.72
07	Vegetables	19	2.07
18	Cocoa and cocoa preparations	19	2.07
21	Miscellaneous edible preparations	12	1.31
15	Fats and oils	10	1.09
38	Miscellaneous chemical products	8	0.87
35	Albumines and enzymes	6	0.65
29	Organic chemicals	5	0.54
12	Oil seeds	3	0.33
	Total	919	100.00

Source: Based on information available from the European Commission, at http://www.europa.eu.int/comm/trade/pdf/ebaprodlist.pdf

ences for the period 1 July 1999 to 31 December 2001, so as to extend duty-free access without any quantitative restrictions to 919 agricultural products originating in the least developed countries. More than 50 per cent of the liberalized tariff lines covered meat and dairy products, beverages and milled products (table II.7). EBA entered into force on 5 March, 2001.

EBA was adopted as an amendment to the existing GSP scheme in order to ensure its compatibility with the WTO rules. The basis for EBA under the WTO is paragraph 2(d) of the Enabling Clause of 1979 which allows for special treatment to be granted for least developed countries *in the context of any general or specific measures in favour of developing countries.* Thus, at least from this legal point of view, EBA initiative was bound to the existing GSP scheme. However, this fact does not impose any constraint on the European Union with regard to the scope and nature of LDC preferential trade regime.

It should also be noted that the European Union had to ensure the WTO compatibility of EBA by avoiding another constraint imposed by the Lome conventions. In the Cotonou Agreement, article 174(2)(b) of the Lome Convention imposing non-discrimination among ACP states was eliminated. Thus, the European Union can offer better market access to LDC ACP States without extending it to non-LDC ACP countries, as the above mentioned article would have required.

The EBA, like the existing GSP scheme, also allows for diagonal cumulation of origin between the LDCs and ASEAN, SAARC and the European Union. However, although EBA comes as an amendment to the European Union GSP scheme, several provisions are modified by EBA in the general GSP framework. First, unlike the European Union GSP scheme that is subject to renewal and revision, EBA has no time limitation. The European Commission will review the functioning of EBA in 2005, when amendments can be introduced, if necessary. Second, there are new provisions permitting the European Union to introduce safeguard measures when massive increases in imports of products originating in the LDCs arise in relation to their usual levels of production and export capacity. Specific safeguard measures apply especially with regard to sensitive products (bananas, sugar and rice), if imports of these products cause serious disruptions to the European Union mechanisms regulating these products (the CAP and ACP-EU protocols in particular).

b. Country and product coverage

The EBA extends duty-free and quota-free market access to the European Union for products in 919 tariff lines. All the products included in the initiative are agricultural products. Products such as fruits and vegetables, meat, beverages and dairy products, are now granted duty-free and quota-free access to the European Union market. Only three products have not been liberalized immediately: bananas, rice and sugar. Their phase-in periods for full market access are as follows:[8]

- Bananas – duties will gradually be eliminated, by a 20 per cent annual reduction, starting on 1 January 2002. All duties will be eliminated from 1 January 2006;

- Rice – full liberalization will be phased in between 1 September, 2006 and 1 September, 2009 by gradually reducing the full European Union tariff to zero. Duties will be reduced by 20 per cent on 1 September, 2006, by 50 per cent on 1 September, 2007 and by 80 per cent on 1 September, 2008. During the transition period, LDC rice can be exported duty-free to the European Union within the limits of a tariff quota. The initial quantities of this quota shall be based on best LDC export levels to the European Union in the recent past, plus a growth factor of 15 per cent. The quota will grow every year, from 2,517 tonnes (husked-rice equivalent) in 2001/2002 to 6,696 tonnes in 2008/2009 (September to August marketing year);

- Sugar – similar arrangements are provided for sugar. Full liberalization will be phased in between 1 July, 2006 and 1 July, 2009. During the transition period, LDC raw sugar can be exported duty-free to the European Union within the limits of a tariff quota, which will be increased from 74,185 tonnes (white-sugar equivalent) in 2001/2002 to 197,355 tons in 2008/2009. The provisions of the ACP-EC Sugar Protocol will remain valid.

c. Safeguard provisions

Whereas the EBA initiative clearly breaks new ground in granting full market access for the least developed countries, it also provides for mechanisms to avoid disruptions to the Community market.

Under the current European Union GSP scheme,[9] preferential tariff treatment may be temporarily withdrawn (in whole or in part) in the case of certain activities including slavery, forced labour,[10] export of goods made by prison labour, manifest shortcomings in customs controls on export or transit of drugs, failure to comply with international conventions on money laundering and fraud or failure to provide the cooperation required for the verification of certificates of origin.[11] Other circumstances qualifying for such a withdrawal are manifest cases of unfair trading practices on the part of a beneficiary country[12] or manifest infringements of the objectives of international conventions[13] concerning the conservation and management of fishery resources.[14]

An actual safeguard clause is provided for in article 28, stating that MFN duties on a product may be reintroduced where that product originating from a developing country is imported on terms which cause or threaten to cause serious difficulties to a Community producer of like or directly competing products. In examining the possible existence of such *serious difficulties* the Commission takes, among other things, the following factors into account: reduction in market share of Community producers, reduction in their production, increase in their stocks, closure of their production capacity, bankruptcies, low profitability, low rate of capacity utilization, employment, trade and prices.[15]

The EBA initiative modifies this scheme by:

a. Adding to the reasons for the possible temporary withdrawal of preferences massive increases in imports into the Community of products originating in LDCs in relation to their usual levels of production and export capacity.[16] This addition shall allow the Commission to "react swiftly when the Communities financial interests are at stake".[17]

b. Inserting a new paragraph in article 28 GSP allowing for the suspension of the preferences provided by this regulation for rice, sugar and bananas, "if imports of these products cause serious disturbance to the Community markets and their regulatory mechanisms".[18] Here, it becomes clear that while the European Union is generally ready to extend preferential market access to sensitive products, the Community also wants to provide for special safeguards regarding the three most sensitive ones.[19] The Commission announced[20] that whenever LDC imports of rice, sugar or bananas exceed, or are likely to exceed the previous years level by more than 25 per cent, then it will automatically examine whether the conditions for applying GSP safeguard measures are met.

Finally, it should be noted that while the preferences for developing (LDC and non- LDC) countries under the GSP scheme are subject to periodic renewal, the special arrangements provided for in the EBA initiative (modifying the GSP) with regard to market access for LDCs will be maintained for an unlimited period of time.

On the whole, it appears that the EBA modifications to the GSP safeguard scheme do not intend to frustrate market access but to provide for an emergency mechanism applicable in cases of severe market disturbances resulting from the newly granted LDC preferences.

(i) Differences between safeguard measures under the EBA / GSP and under the Cotonou Regime

A comparison of the EBA / GSP safeguard mechanism with the one set-up under the Cotonou Agreement reveals several differences.

While the safeguard clause under the (modified) GSP only requires that an imported product originating from one of the GSP beneficiaries "cause(s) or threaten(s) to cause *serious difficulties* to a Community producer of like or directly competing products", the corresponding regulation in the Cotonou Agreement calls for import "in such *increased quantities* and under such conditions as to cause or threaten to cause *serious injury* to its domestic producers of like or directly competitive products". The provision of the Cotonou Agreement further provides for "serious disturbances in any sector of the economy or difficulties which could bring about serious deterioration in the economic situation of the region" as alternative scenarios equally justifying the application of safeguard measures. Unlike the GSP safeguard scheme, the Cotonou rules do not expressly define the factors to be taken into account when examining "serious difficulties".

Whereas the GSP provides for the reintroduction of Common Customs Tariff duties as its safeguard measure, the Cotonou regulation merely speaks of "appropriate measures". Without further specifying these measures, the provision determines that they "shall be restricted to those which would least disturb trade between the Contracting Parties…and must not exceed the scope of what is strictly necessary to remedy the difficulties that have arisen."[21] Furthermore, "when applied, safeguard measures shall take into account the existing level of the ACP exports concerned to the Community and their potential for development."[22] The Cotonou regulation also states that "The Commu-

nity undertakes not to use other means for protection or to hamper structural development. The Community will refrain from using safeguard measures having the same effect."[23]

Unlike the GSP rules, the Cotonou Agreement does not provide for a temporary withdrawal of the preferential arrangements in the case of "criminal" activities or the infringement of certain rules.[24]

Overall, it seems that – with the exception of the special rules regarding sugar, rice and bananas – safeguard measures can be more easily invoked under the GSP than under the Cotonou regime. LDCs are more likely to lose their preferential treatment under the EBA initiative than under the Cotonou Agreement. Nevertheless, in both cases, the European Union appears to be committed to restrict safeguard measures to cases of actual serious market disruptions, which have seldom been made use of.

(ii) Differences in GSP/EBA and WTO safeguard provisions

The safeguard mechanism provided for in the (modified) GSP scheme also differs from the one laid down in the WTO Agreements.

While the GSP safeguard clause refers to serious difficulties caused by imports, WTO law requires imports of such increased quantities, absolute or relative to domestic production to cause serious injury. Article XIX GATT 94 further requires that such imports are the "result of unforeseen developments and of the effect of the obligations incurred by a contracting party under this Agreement...". Unlike the GSP rules stating that the existence of serious difficulties shall be examined by considering several factors such as reduction in market share or production, bankruptcies, employment etc, the WTO Safeguard Agreement defines serious injury as "a significant overall impairment in the position of a domestic industry".

The safeguard measure provided for in the GSP/EBA scheme consists of the suspension of preferences and the reintroduction of Common Tariff duties, while WTO law allows for tariff increases beyond bound rates and the imposition of quantitative restrictions.

While safeguard measures under the GSP scheme target only the country exporting the specific product, WTO safeguard measures must be applied on MFN basis.

The WTO Safeguard Agreement states that safeguard measures shall only be applied to the extent necessary to prevent or remedy serious injury and to facilitate adjustment. While this may be the European Union motivation guiding the GSP scheme, the actual rules do not contain any such provision.

While WTO safeguard measures are limited to a maximum initial period of four years (with the possibility of extension up to eight years – ten years for developing countries), the GSP scheme does not contain any time limit for its safeguard measures (it has to be kept in mind, however, that the GSP scheme itself is of limited duration and subject to periodic renewal).

In analyzing those differences, one should keep in mind however, that most of them relate to the GSP's special status as a *preferential* scheme, calling for special rules.

While the EBA initiative strives to ensure a balance between substantially increased market access for LDCs and the prevention of potential damage to Community producers, the actual impact of the EBA safeguard measures on imports from least developed countries remains to be seen. The Commission announced[25] that it will keep the implementation of the EBA initiative under review in order to detect and immediately address potential shortcomings. The extent to which LDCs are actually benefiting from the trade liberalization introduced by this initiative will be examined, as will the adequacy of its safeguard mechanisms. A Commission report to the Council addressing these issues is scheduled for 2005. In the light of the fact that the European Union has rarely made use of safeguard measures in the past[26] and that the Community appears to be committed to facilitate LDC market access, it seems likely that resort to safeguard measures will be limited to cases of significant damage suffered by European Union producers. Future developments will, therefore, most likely depend on whether duty and quota free LDC market access causes serious disruptions to the Community market.

d. EBA and the CAP

One major concern during the adoption of EBA by the European Union was related to the impact of EBA on the European Union's Common Agricultural Policy (CAP). Before examining this question a brief overview of the CAP will be given in order to understand the likely impact of EBA.

The CAP represents a striking example of the second best policy with costly side-effects. In the 1970s the CAP expenditure represented by far the biggest expense for the European Union budget, with more than 70 per cent of total spending accounted for by agriculture in 1979 (Rieger, 1996). The historical underpinnings of the CAP, outlined in article 39 of the 1957 Treaty of Rome, reflect the post-war concern of recapturing food security across Europe.

As a result, the CAP has made use of an impressive array of policy measures aimed at ensuring appropriate levels for domestic agricultural production and income for European Union farmers. Domestically, the CAP introduced various direct and indirect support measures, while on the foreign trade side, it is based on tariffs, quotas, variable import levies to reduce imports triggered by high domestic prices and export subsidies to reduce domestic production surpluses. The CAP comprises a series of general and sectoral arrangements for almost all agricultural products: arable crops, potato starch, cereals, olive oil, grain legumes, flax, hemp, silk worms, bananas, dried grapes, tobacco, seeds, hops, rice, meat and meat products, milk and milk products, wine, etc.[27]

However, over time the CAP has not only managed to maintain food security and welfare levels across Europe but has also become a major burden on the European Union budget. Hence CAP adjustments and reforms became increasingly necessary. The risk of new cereal surpluses and ever growing "butter and beef mountains" and "wine lakes" necessitated a change to the system of support for producers. In order to balance the cereals market, the European Union decided to bring Community prices into line with those of the world market.

Two major factors called for a reform of the CAP: *domestic frictions* among European Union member States about budgetary issues and *international frictions* between the European Union and third countries on the protectionist and support measures that affect agricultural world markets.

Stemming more from external pressure, a notable reform initiative was introduced in 1992. The MacSharry Reform of 1992 represented an important step in reducing the gap between European Union and world market prices in agricultural products. The 1992 reform aimed at reducing support

prices, increasing compensatory payment to farmers and reducing domestic production, through set-aside arrangements and other measures. While the MacSharry Reform was more related to external pressures arising from the need to reach an agreement on agriculture in the GATT Uruguay Round (Josling and Tagermann, 1992, Helmer et al., 1994), concerns over budgetary costs had been the traditional driving force behind changes to the European Union's CAP. There is an expectation the budgetary constraint will reemerge again, particularly in light of the impending accession of a number of Central and Eastern European countries (Buckwell et al., 1995).

In the past, several budgetary crises arose for certain products (grains, milk and sugar) as the CAP budget was too small to ensure attractive running (Weyerbrock, 1998).[28] Such budgetary problems also became an issue during the adoption of EBA. It was argued by many domestic producer groups that EBA, by eliminating tariffs and quotas on products that are subject to CAP provisions, will increase imports to such an extent that it will actually make the CAP support measures ineffective (Agra Europe, 2001). Despite these concerns, there are several factors suggesting that the impact of EBA on the CAP will be, if not minimal, at least manageable.[29] The main variables that should be taken into account when assessing the impact of EBA on the CAP concern the evolution of European Union domestic production and the impact on the European Union CAP budget.

The computable general equilibrium (CGE) simulations in chapter III take into account several domestic and trade policy instruments related to the functioning of CAP. The database used to generate the results includes agricultural import tariffs and non-tariff equivalents, production subsidies and export subsidies.[30] Even though certain other CAP support measures are not modelled explicitly, the CGE model captures most of the effects of the CAP functioning.

The implications of the CAP budget arising from EBA are of a more complex nature, as was evidenced by the European Union impact study (EC, 2000a). Considering the exports from LDCs, the major sectors were a significant increase in LDC exports is expected to happen are the same sectors as above (sugar, processed rice, other food products, and to a lesser extent, fruits and vegetables, cereals). This estimated increase in exports is in line with the European Union assessment of the impact of EBA on the European Union its agricultural support budget, predicting a €1 billion increase in support for sugar only (EC, 2000b). However, if taking into account the indirect protection on vegetables, fruits, meat and diary products as well as other food products introduced by stringent sanitary and phyto-sanitary standards that LDCs exports must meet before entering the European Union, the increase in LDC exports for these products should be smaller than the estimates.[31]

It must be stressed that the impact of EBA on the European Union agricultural sector should also take into account the complexity of the CAP and the potential interactions between European Union export subsidies, supply constraints in LDCs and cumulation of origin. As long as CAP policies maintain a price differential between European Union domestic prices and world prices, even after an initial increase in exports, LDC producers will have strong incentive to further increase exports to the European Union. However, for many items, sharp increases in exports will be precluded by supply constraints that are difficult to overcome, by only relying on domestic sources. As a result, LDCs would have to import the necessary intermediary products to expand their exports. Given the fact that EBA allows for cumulation between LDCs and the European Union, even with relatively low value added in LDCs, there is a strong incentive for some European Union intermediate agricultural products to be further processed in LDC countries and then re-exported to the European Union. By such an export/import cycle, the European Union exporter of intermediate goods receives the export subsidy and the LDC exporter receives more than the world price, in the European Union market.

C. Japan

1. Trade provisions

Japan's GSP scheme entered into force on 1 August 1971 and was authorized under a renewable multiannual scheme granting preferences for an initial period of ten years. The GSP scheme was renewed twice, once in 1981 for ten years and once in 1991 until 31 March 2001. The Japanese scheme comprises a positive list of agricultural items that are eligible for GSP, and a negative list of industrial goods (including textiles) that are ineligible. Import ceilings apply to some industrial products and may lead to a reinstatement of MFN tariff rates. Imported products posing no threat or injury to Japan's

Table II.8. LDC exports to Japan receiving better than MFN tariffs, 1999

HS	Description	World exports ($000)	LDC exports ($000)	LDC Share (%)	MFN LDC margin[a]
080300	Bananas	550 854	8	0.00	16.00
090121	Coffee	19 562	201	1.03	12.00
160414	Fish products	117 375	7 425	6.33	9.60
190590	Cereal, flour, starch/milk	119 737	5	0.00	8.86
160510	Fish products	139 085	1 777	1.28	8.07
152190	Animal/veg fats &	3 669	2 105	57.37	7.53
160590	Fish products	346 726	675	0.19	7.52
220890	Beverages, spirits and vinegar	106 853	11	0.01	7.19
090230	Tea	40 370	8	0.02	6.00
160520	Fish products	303 080	45	0.01	5.05
160420	Fish products	156 217	7	0.00	4.93
200819	Preparation of vegetable, fruit, nuts	37 559	5	0.01	4.32
220300	Beer	48 225	19	0.04	3.80
030759	Octopus	395 646	111 206	28.11	3.50
090920	Seeds of coriander	5 184	3	0.06	3.00
121190	Plants and parts of plants	74 956	1 783	2.38	2.86
140490	Vegetable materials; vegetable products	34 469	64	0.19	2.57
091010	Ginger	74 011	41	0.06	2.50
210690	Miscellaneous edible preparations	510 722	73	0.01	2.43
030799	Fish & crustacean	386 889	2 744	0.71	2.00
090420	Spices	28 404	206	0.73	2.00
030791	Aquatic invertebrates	520 122	159	0.03	1.50
121220	Algae	178 940	132	0.07	1.27
080290	Edible fruit and nuts	28 092	96	0.34	1.25
030623	Shrimps	29 970	9	0.03	1.25
210390	Miscellaneous edible preparations	112 544	54	0.05	1.20
090700	Cloves	1 068	894	83.71	1.20
091030	Turmeric	4 847	81	1.67	1.20
090240	Tea	108 713	613	0.56	1.00
070951	Mushrooms and truffles	220 546	83	0.04	1.00
051000	Products of animal origin	28 722	49	0.17	1.00
030110	Ornamental fish	35 577	284	0.80	0.85
230990	Animal feeding	112 014	15	0.01	0.60
051199	Products of animal origin	60 265	3	0.00	0.50
051191	Egg yolks	24 014	24	0.10	0.43

Source: UNCTAD.

a Aggregated from both GSP-covered and non-covered products. For GSP-covered products the LDCs have duty-free and quota-free market access. Tariff rates refer to year 2000.

domestic industry continue to receive GSP, even if ceilings are exceeded. Unlike developing countries' exports, import ceilings do not apply to LDC exports.[32]

Table II.9. LDC exports to Japan receiving better-than-GSP treatment for developing countries, 1999

HS	Description	LDC exports ($'000)	LDC share (%)	LDC tariff	GSP-developing margin
030623	Shrimps and prawns	9	0.03	0.75	1.00
030759	Octopus	111 206	28.11	5.00	2.50
030791	Fish & crustacean	159	0.03	4.07	1.50
030799	Fish & crustacean	2 744	0.71	5.78	1.95
080290	Nuts	96	0.34	4.13	0.75
090230	Tea	8	0.02	8.50	6.00
090240	Tea	613	0.56	5.67	0.83
121220	Algae	132	0.07	8.18	0.73
160420	Fish products	7	0.00	4.40	4.30
160590	Crustaceans products	675	0.19	1.98	5.97
190590	Preparation of cereal, flour, starch/milk	5	0.00	10.87	5.72
200819	Nuts	5	0.01	6.60	3.54
210390	Miscellaneous edible preparations	54	0.05	8.43	1.00
210690	Miscellaneous edible preparations	73	0.01	17.60	1.63
220890	Beverages, spirits and vinegar	11	0.01	4.26	1.70

Source: UNCTAD.
a Tariff rates refer to year 2000.

Japan has adopted a graduation policy (as have many other preference-giving countries), whereby a particular country can lose its GSP benefits for a specific product when the beneficiary is viewed as internationally competitive. The GSP preferences can be withdrawn, suspended, or limited vis-à-vis countries and products to which GSP treatment is granted.

Similar to the European Union's GSP, the Japanese programme provides for duty-free as well as reduced-duty access under GSP. Reduced duties apply to both agricultural and industrial items.

In line with the WTO initiatives, Japan has improved LDC market access. As of 1 April, 2001, Japan increased the number of tariff lines enjoying duty-free and quota-free access for LDCs, by an additional 350 items, which have formerly been exceptions to GSP system (METI, 2000). Noticeably, all the textile and clothing products from LDCs will be duty free and quota free. By this measure, about 99 per cent of industrial products from LDCs will have duty-free and quota-free access from 1 April, 2001 (WTO, 2000b). Although only 42 of the 49 LDCs benefit from this system, the remaining seven will also be included.[33]

2. Trade patterns

The special treatment for the 42 LDCs started on 1 April, 1980. Despite these favourable trade measures, imports from LDCs accounted for about 1.3 per cent of total Japanese imports receiving GSP treatment in 1999 and for 1 per cent in 2000 (UNCTAD, 2001).

In terms of product coverage in 2000, out of 541 HS6 LDC exports, 250 HS6-level exports from LDCs did not receive any preference with regard to the MFN regime and 371 products did not receive any preference with regard to the GSP regime for developing countries. Also for the same period, 57.1 per cent of LDC products exported to Japan did not receive any preference. Out of 291 LDC HS6-level exports receiving better-than MFN treatment, 35 faced positive tariffs (table II.8), all others entered duty-free. Similarly, table II.9 presents LDC exports facing non-zero better-than-GSP tariffs in the Japanese market.

D. The United States

The United States continues to grant preferential market access to developing and least developed countries through several schemes (see table II.10), including through the Generalized System of Preferences and the Trade and Development Act of 2000 -- including African Growth and Opportunity Act (AGOA) and Caribbean Basin Trade Partnership Act (CBTPA).

1. Trade provisions

a. GSP

The United States GSP programme was originally authorized by title V of the 1974 Trade Act and became operational on January 1, 1976. The scheme provides for duty-free entry for a wide range of designated products from eligible developing countries and territories. In addition to the preferential access granted to developing countries, special treatment is granted for products originating in least developed countries. In 1997, the LDC market access was significantly expanded when more than 1,700 additional LDC products were granted duty-free treatment. However, the United States GSP scheme grants LDC status to only 35 countries.[34] When the programme was reintroduced in 1984, new "country practice" eligibility criteria were added, including requirements that beneficiary countries provide adequate and effective protection of intellectual property rights and take steps to observe internationally recognized worker rights. Furthermore, a GNP per capita eligibility limit was enacted, excluding countries that exceed the ceiling.

As is the case with most GSP schemes, not all products eligible to enter the United States under GSP actually enter duty-free due to several programme provisions that limit GSP preferential market access. Under the United States GSP scheme, an eligible product may be denied duty-free status when an LDC exporter is deemed competitive in the United States market (GAO, 1994).[35] Products can also be denied duty-free entry because a country exceeds limits placed on import levels ("competitive need limits").[36] These exclusions are based on the assumption that a developing country's exports have become competitive. However, external factors that may have little to do with the competitiveness of a particular beneficiary country's industry can affect United States import levels during one year. Yet, according to United States General Accounting Office, in many cases, a loss of GSP status due to a competitive need limit exclusion was immediately followed by a loss of import market share (GAO, 1994). Finally, duty-free treatment can be denied because products fail to meet beneficiary country domestic content or direct shipping requirements ("administrative exclusions"). In addition to product

Table II.10. United States preferential trade schemes

Trading arrangement	Main characteristics	Beneficiary countries
Generalized System of Preferences (GSP)	Duty-free access for many exports, but several significant product areas are excluded and numerous provisions allow for the removal of specific products or countries	Most developing and transition economies; among the exceptions are China, most OPEC members, some Asian newly-industrialized economies and Nicaragua (a CBI country)
Special trade preferences	Duty-free access for almost all exports other than oil, certain textiles and apparel, most leather products and a few other exceptions	**African Growth Opportunity Act (AGOA):** most African countries, both developing and LDCs **Caribbean Basin Initiative (CBI)**: most Central American and Caribbean countries **Andean Trade Preferences Act**: Bolivia, Colombia, Ecuador, and Peru.

Source: UNCTAD Handbook on the GSP Scheme of the United States.

exclusion, countries can be graduated, or removed, from the programme.

The GSP eligibility criteria for the United States GSP scheme cover a multitude of aspects that are not always directly related to trade and development and that often go beyond status quo at multilateral level.[37] Yet, in certain areas that are also covered at the multilateral level, GSP eligibility criteria adds further incentive for LDCs to comply with international standards. Thus, with regard to the spillover effect of such an arrangement on the capacity of developing countries to upgrade their domestic regulatory regimes to internationally accepted standards, GSP schemes can be compared with a North-South RTA such as NAFTA.

The United States GSP conditionality contains certain provisions whose rationale and benefits are less clear. Although the WTO Enabling Clause clearly states that developed countries granting GSP access to a developing countries should not expect reciprocity. The United States GSP scheme introduces several conditionality criteria that may be interpreted as indirect reciprocity. For instance, Title V of the Trade Act of 1974 that originally introduced the United States GSP scheme states in section 502 (c) that a developing country may become ineligible if it grants preferential treatment to another developed country deemed to have a potential negative effect on the United States trade. This condition may potentially eliminate from the United States GSP scheme any developing country engaged in North-South trade with a developed country, other than the United States.

b. Caribbean Basin Trade Partnership Act (CBTPA)

The CBTPA expands on the current Caribbean Initiative (CBI) by allowing duty-free and quota-free treatment for imports of certain apparel from the Caribbean region and by extending NAFTA-equivalent tariff treatment to a number of other products previously excluded from the CBI programme.[38]

c. AGOA

African Growth and Opportunity Act (AGOA) is part of the Trade and Development Act of 2000, instituting new trade and investment policies for sub-Saharan Africa.[39] Section 112(a) of the AGOA provides that eligible textile and apparel articles imported directly into the customs territory of the United States from a beneficiary sub-Saharan African country shall enter free of duty and free of quantitative limitations.[40] Section 112(b)(3)(B) of the AGOA provides special rules for certain apparel articles imported from "lesser developed beneficiary sub-Saharan African countries".[41] Wine, footwear, fruit and juices, leather products are some of the exports benefiting from AGOA. Under specific conditions, AGOA also entitles African clothing to enter the United States duty-free.

AGOA extends GSP to a number of eligible Sub-Saharan African countries until 30 September 2008 – seven years longer than for the rest of the world. Thirty five countries have so far been designated as AGOA beneficiaries.[42] African countries are eligible to become AGOA beneficiaries, provided they work toward strengthening market based economies, the rule of law and political pluralism, elimination of barriers to United States trade and investment, protection of intellectual property, efforts to combat corruption, policies to reduce poverty, increasing availability of health care and educational opportunities, protection of human rights and worker rights and elimination of certain child labour practices. Sub-Saharan African beneficiary countries are also exempted from competitive need limitations which cap the GSP benefits available to beneficiaries in other regions (USTR, 2000). AGOA allows duty-free treatment for any product, unless considered sensitive when imported from

African countries. In December 2000, the duty-free product coverage under AGOA was extended for more than 1,800 tariff lines, in addition to the standard GSP list of approximately 4,600 products available to non-AGOA GSP beneficiary countries. The additional GSP line items include previously excluded products such as footwear, luggage, handbags, watches and flatware.

Special AGOA provisions permit less developed African countries to ship duty-free (but not quota free) to the United States apparel manufactured from fabric produced anywhere in the world. However, countries must first meet the requirement of an effective visa system and enforcement mechanism before becoming eligible. Until April 2001, only three AGOA beneficiaries (Kenya, Lesotho and Madagascar) managed to fulfil all these requirements.[43]

Table II.11. LDC exports facing non-preferential United States tariff peaks, 1999

HS 6	Description	LDC exports	LDC share	Tariff[a]
610333	Jackets and blazers	126	14.19	28.9
610433	Jackets and blazers	567	3.14	28.9
611212	Track suits	1 423	4.95	28.9
611130	Babies' garments	8 559	4.37	28.62
620312	Suits	74	0.11	28.00
611231	Men's swimwear	1 184	26.73	26.60
640419	Footwear	21	0	26.39
611430	Knitted apparel	2 076	1.42	25.73
611241	Women's swimwear	753	0.26	25.50
620333	Jackets and blazers	327	0.26	25.00
610620	Knitted apparel	14 918	3.43	24.35
621230	Corselets	118	0.75	24.10
610520	Knitted shirts	28 136	9.72	24.00
620930	Babies' garments	5 537	8.86	23.43
610343	Knitted apparel	20 933	6.83	22.3
621220	Girdles	99	0.16	22.00
640299	Footwear	5	0	21.56
640420	Footwear	1	0	20.83
611219	Track suits	1	0.18	20.80
610510	Knitted apparel	87 219	5.28	20.20

Source: UNCTAD.
a Aggregated from both GSP-covered and non-covered products. Tariff rates refer to year 2000.

Table II.12. LDC exports to the United States receiving the highest preferential MFN margin, 1999

HS 6	Description	LDC exports ($000)	LDC share (%)	LDC rate[a]	MFN preferential margin[a]
120220	Oil seeds	418	1.00	43.93	87.87
240120	Tobacco	55 926	13.69	46.67	31.11
240110	Tobacco	2 988	0.84	38.89	19.44
220290	Beverages	10	0.01	0	17.33
701399	Glass and glassware	1 275	0.56	0	15.53
691110	Tableware and kitchenware	2 471	0.76	0	13.71
854011	Electrical machinery	2	0	0	12.86
701391	Glass and glassware	9	0	0	12.63
240130	Tobacco	457	2.46	26.92	11.97
160414	Fish, caviar	99	0.02	0	11.73
100630	Rice	215	0.12	0	11.20
071080	Vegetables	4	0	0	10.80
701321	Glass and glassware	12	0.01	0	10.33
670290	Preparation feathers and flower	33	0.01	0	10.23
200110	Cucumbers and gherkins	10	0.04	0	9.60
650510	Hair-nets	294	3.38	0	9.60
200819	Preparation of vegetable, fruit and nuts	117	0.22	0	9.54
691200	Ceramic products	56	0.01	0	8.98
040520	Dairy spreads	4	0.03	0	8.80
401519	Gloves	19	0.01	0	8.50

Source: UNCTAD.
a Aggregated from both GSP-covered and non-covered products. Tariff rates refer to year 2000.

2. Trade patterns

Overall, imports from LDCs account for a small share of total United States imports. For instance in 2000, the share of LDC imports to the United States was only 1.25 per cent. Although the United States GSP scheme allows for more preferential market access for LDCs, their exports still face a significant number of trade barriers. Tables II.11 – II.14 show the patterns of protection facing LDC exports.[44] In 2000, more than 45 per cent of total LDC exports were eligible for better-than-MFN access to the United States market, with preferential margins ranging from 0.2 per cent to more than 80 per

Table II.13. LDC exports to the United States receiving better-than-GSP treatment for developing countries, 1999

HS 6	Description	LDC exports ($000)	LDC share (%)	LDC rate	GSP margin[a]
240120	Tobacco	55 926	13.69	46.67	38.89
610520	Knitted apparel	28 136	9.72	24.00	24.00
610343	Knitted apparel	20 933	6.83	22.30	22.30
610620	Knitted apparel	14 918	3.43	24.35	24.35
611130	Knitted apparel	8 559	4.37	28.62	28.62
620930	Babies' garments	5 537	8.86	23.43	23.43
240110	Tobacco	2 988	0.84	38.89	30.56
611430	Knitted apparel	2 076	1.42	25.73	25.73
611212	Track suits	1 423	4.95	28.90	28.90
611231	Men's swimwear	1 184	26.73	26.60	26.60
611241	Women's swimwear	753	0.26	25.50	25.50
610433	Knitted apparel	567	3.14	28.90	28.90
240130	Tobacco refuse	457	2.46	26.92	26.92
120220	Oil seeds	418	1.00	43.93	43.93
620333	Not knitted apparel	327	0.26	25.00	25.00
610333	Knitted apparel	126	14.19	28.90	28.90
621230	Corselets	118	0.75	24.10	24.10
621220	Girdles	99	0.16	22.00	22.00
620312	Suits	74	0.11	28.00	28.00
640419	Footwear	21	0	26.39	26.39

Source: UNCTAD.
a Tariff rates refer to year 2000.

cent, relative to the MFN tariff. Out of total LDC exports, about 50 per cent of HS6-level products were eligible for duty-free access. However, if petroleum products are excluded, only 12 per cent were eligible for duty free access. In terms of GSP product coverage, 388 out of 934 HS6 LDC exports enjoyed a preferential margin vis-à-vis the MFN applied tariff and more than 100 LDC exports (at HS6 level) receive preferences vis-à-vis the GSP tariff for developing countries. Out of the HS tariff lines with a better-than- MFN treatment for LDCs only 54 items face positive tariffs, all the others are duty-free. However, not all LDC exports that are eligible for preferences actually receive preferential treatment. Once this is taken into account, actual figures are somewhat lower. For instance, the United States GSP utilization ratio was 76.5 per cent in 1998 for LDC eligible exports.

LDC exports to the United States are dominated by textile products originating from: Bangladesh, Cambodia and Haiti. Other major exports are oil products from Angola and Congo. Apart from oil products, out of the top 20 LDC exports at HS6 level to the United States, only one enjoyed preferential margin (tobacco). The others did not have preferential margin compared to the MFN ad valorem tariff (table II.14). In terms of geographical and sectoral distribution, as evident from table II.14, Asian LDCs are major textile and clothing exporters, while African LDCs are major mineral products exporters.

Table II.14. Top 20 HS6 level LDC exports to the United States, by LDC exporter, 1999

HS 6	Description	Value ($000)	Country	Preferential margin (%)[a]
270900	Petroleum oils and oils obtained from bituminous minerals, crude	2 488 009	Angola	n/a
270900	Petroleum oils and oils obtained from bituminous minerals, crude	337 349	Congo	n/a
620520	Apparel	193 570	Bangladesh	0
620342	Apparel	184 549	Bangladesh	0
650590	Headgear and parts thereof	165 258	Bangladesh	0
620342	Apparel	155 759	Cambodia	0
620462	Apparel	152 775	Bangladesh	0
620630	Apparel	127 913	Bangladesh	0
610910	Knitted apparel	125 935	Haiti	0
260600	Aluminium ores and concentrates	116 814	Guinea	0
030613	Shrimps and prawns	115 046	Bangladesh	0
270900	Petroleum oils and oils obtained from bituminous minerals, crude	109 067	Zaire	n/a
611020	Knitted apparel	106 662	Cambodia	0
620462	Apparel	85 251	Cambodia	0
611030	Knitted apparel	80 848	Bangladesh	0
611020	Knitted apparel	77 042	Bangladesh	0
710231	Diamonds	73 949	Zaire	0
610821	Briefs and panties	56 182	Bangladesh	0
620193	Apparel	55 669	Bangladesh	0
240120	Tobacco	52 535	Malawi	31.11

Source: UNCTAD.
a Tariff rates refer to year 2000.

E. Conclusions

This chapter reviewed the efforts of the four Quad members to provide non-reciprocal preferences to developing countries, in particular to LDCs. Despite these countries positive efforts over the past 30 years the current degree of access into their markets is still some distance away from full quota and duty-free access. Furthermore, even in cases where market access for developing countries is generous, the impact could be quite low owing to eligibility, conditionality or procedural constraints. Indeed, as chapter I indicated the trade performance of LDCs has been poor and declining in recent years relative to other countries. One reason for this could, as the evidence presented here suggests, that perhaps the degree of market access they have been offered is not sufficient to strengthen the links between trade and development.

NOTES

[1] The BPT was eliminated with the introduction of the new Customs Tariff in 1998. To alleviate or minimize the effects of terminating the BPT, a Remission Order Respecting Imports of Goods Originating in Commonwealth Developing Countries has been introduced to maintain rates equivalent to BPT rates on 158 items until completion of the MFN rate reductions as a result of the Uruguay Round. These items consist of food products, wool and certain clothing articles (WTO, 1998).

[2] A complete list and description of the newly-added products is available from the Canadian Custom Tariff (www.ccra-adcr.gc.ca).

[3] Based on data available from UNCTAD, GSP database.

[4] Moreover, some LDC exports are facing less than favourable market access to Canada, compared to NAFTA access for American and Mexican products.

[5] This includes Central and Eastern European countries in the context of Europe Agreements, and neighboring countries in the Mediterranean basin under the so-called Euro-Mediterranean Agreements. The European Union also has free trade agreements with South Africa, Mexico, Chile, MERCOSUR and Canada.

[6] Further details on the GSP scheme of the European Union and other Quad countries can be found in the UNCTAD Handbooks on the GSP Schemes, available online at http://www.unctad.org/gsp/.

[7] The four categories are as follows: 1) *very sensitive products*, for which the MFN preferential margin is 15 per cent; 2) *sensitive products*, for which the MFN preferential margin is 30 per cent; 3) *semi-sensitive products*, for which the MFN preferential margin is 65 per cent; 4) *non-sensitive products*, which enter the European Union market duty-free.

[8] The information provided below is based on data available from the European Commission, at http://www.europa.en.int/comm.

[9] Based on Council Regulation No 2820/98 of 21 December 1998.

[10] A temporary withdrawal on this ground has been exercised in 1997, when Myanmar was temporarily excluded from GSP treatment for alleged forced labour practices. Council Regulation 552/97 of 24 Mars 1997. OJ L 85, 27 Mars 1997.

[11] Article 22:1 (a)-(d) of the Council Regulation No 2820/98 of 21 December 1998.

[12] Article 22:1 (e) of the Regulation states that the withdrawal shall be in full compliance with the WTO rules.

[12] Article 22:1 (f) explicitly lists NAFO, NEAFC, ICCAT and NASCO.

[14] Articles 22:1 (e) and (f) of Council Regulation No 2820/98.

[15] Article 28:3 states that the Commission will do so "*where the information is available*".

[16] Article 1:4 of Council Regulation No 416/2001 of 28 February 2001.

[17] Council Regulation No 416/2001 of 28 February 2001.

[18] Article 1:5 of Council Regulation No 416/2001 of 28 February 2001.

[19] Article 1:5 of Council Regulation No 416/2001 refers to the "*particular sensitivity*" of these products.

[20] Statement of the European Union Commission of 1 Mars 2001.

[21] Article 8:3, Annex V of the ACP – EU Partnership Agreement.

[22] Article 8:4, Annex V of the ACP – EU Partnership Agreement.

[23] Article 8:2, Annex V of the ACP – EU Partnership Agreement.

[24] It has to be noted however, that such a temporary withdrawal clause does not really constitute a *safeguard* measure.

[25] Commission statement on the Everything But Arms Initiative of 1 March 2001.

[26] Not a single safeguard measure has been adopted under the WTO Agreements (WTO, 2001a).

[27] For a general overview of the CAP, see Köster and Tangermann (1990). More recent information on the European Union agricultural policies may be found on the Europa server (http://europa.eu.int) under the DG-Agriculture website. Legal provisions related to CAP are available online in the Eur-Lex database.

[28] In constrast, Matthews (1996) argues that there will be little pressure from enlargement for any further budgetary reform of Europe's agricultural policy.

[29] An impact study conducted by the European Commission on the effects of EBA on several agricultural markets shows that, depending upon the preliminary assumptions used, the extra-budgetary costs are be-

tween 1.5 to 2.6 billion Euro (EC 2000). This would represent an increase by approximately 3 to 7 per cent of the 1999 CAP budget.

[30] For a general computable equilibrium approach that models explicitly other CAP policies and their recent reforms, see for instance Weyerbrock (1998).

[31] See for instance the example of shirmps from Bangladesh provided in the following chapter.

[32] Further details about the GSP scheme of Japan can be found in UNCTAD Handbook on the GSP Scheme of Japan, available online at http://www.unctad.org/gsp/japan/.

[33] Before 1 April 2001, Japan did not provide the special LDC treatment under the GSP to Zambia, Democratic Republic of the Congo, Kiribati, Tuvalu, Comoros, and Djibouti (METI, 2000).

[34] Several UN-designated LDCs (Afghanistan, Eritreea, Liberia, Mauritania, Lao PDR, Maldives, Myanmar, Solomon Islands, Sudan) are not granted LDC enhanced market access under the United States GSP scheme.

[35] This measure is called permanent "product graduation". Once a product 'graduates' from the GSP scheme, a 3-year rule applies, thus prohibiting the reintroduction of that product in the GSP for a period of three years.

[36] Competitive need limit exclusions are automatically triggered when the value or share of imports from a country exceed an annual ceiling. These exclusions are based on the assumption that a developing country's exports have become competitive. LDC exports are not subject to competitive needs limitations.

[37] The United States GSP eligibility criteria include for instance elements of the United States extraterritorial doctrine on international law with regards to competition policy, IPR, expropriation, communist and terrorist activities, etc. Moreover, unlike trade under the MFN regime, the applicability of such discretionary conditionality cannot be challenged under the WTO disputes settlement procedures.

[38] The 24 countries included in the CBTPA are Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Costa Rica, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Montserrat, Netherlands Antilles, Nicaragua, Panama, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, and British Virgin Islands.

[39] The Trade and Development Act of 2000 also expands the trade preferences granted to the Caribbean countries and renew the United States GSP scheme.

[40] It is notable that the list of beneficiary countries does not include all African LDCs. For instance, Angola, Burkina Faso, Burundi, Comoros and Togo are not included in the list of "lesser developed sub-Saharan African countries" annexed to AGOA.

[41] Section 112(c) of the AGOA introduces strict conditionalities making the elimination of existing quotas on textile and apparel articles contingent, among other things, upon the adoption by African countries concerned of an effective visa system to prevent unlawful transshipments.

[42] Swaziland was designated as the 35th AGOA eligible country in January 2001.

[43] Less-developed sub-Saharan African countries are defined as those with a per capita gross national product of less than $1,500 a year in 1998, as measured by the World Bank. These countries (all sub-Saharan countries except Botswana, Equatorial Guinea, Gabon, Mauritius, Namibia, Seychelles and South Africa) may export apparel wholly assembled in their countries, regardless of the origin of the fabric to the United States. This provision is in effect until 30 September 2004. More details on AGOA can be found at http://www.agoa.gov.

[44] These tables take into account the patterns of protection only for products exported by LDC in 1999 to the Quad markets.

[45] For a detailed analysis of the importance of rules of origin in international trade, see for instance (UNCTAD, 1998b).

CHAPTER III

COMPUTABLE GENERAL EQUILIBRIUM ANALYSIS

A. Introduction

This chapter analyzes the effects of the EU-EBA policy, including an integrated initiative by all Quad countries. The methodology is based on computable general equilibrium modeling (box III.1). This approach has been used extensively to model various trade policy scenarios. It was used widely to model the potential benefits from the implementation of the Uruguay Round Agreement. It has the distinct advantage of being able to identify the costs and benefits of different policy scenarios including their magnitude and distribution. It is well known from the theory of international trade that trade liberalization affects resource allocation within countries and the terms of trade. Because of these changes, some countries may end up gaining, other losing. It is also known that, compared with non-preferential liberalization, preferential arrangements may or may not improve allocation efficiency at the world level. Results depend on the complex interaction between countries' characteristics, the existing pattern of protection, and the design of the trade arrangements to be evaluated. In order to simultaneously take into account all these determinants, a sufficiently rich representation of the status-quo should be compared with an ex-post scenario in which all trade flows and patterns of production adjust to the simulated policy change. CGE modelling permits carrying out such an analysis. Despite its usefulness in obtaining insights into the direction and possibly the magnitude of the impact of trade policy changes, it is important to remember that the methodology has weaknesses. One of these is the assumption of smooth and automatic adjustment processes. CGE analyses ignore, in some cases, significant supply capacity problems that may exist in LDCs.

Box III.1. General equilibrium analysis of preferential trade liberalization

General equilibrium analysis permits to take into account the inter-sectoral reallocation of resources associated with trade reform.[a] It also permits to model the effects on the input-output structure of the economy and to have a better representation of terms of trade changes compared with partial equilibrium analysis. A general equilibrium setting is thus surely preferable when the policy experiment to be modeled affects simultaneously many countries and many sectors and is likely to have relevant repercussions on the terms of trade, factor prices and income. It is to note, however, that CGE analysis are also subject to some drawbacks and limitations (Bora, Cernat and Turrini, 2001). First, as in partial equilibrium analysis, simulation results are sensitive to the value of the elasticity of substitution across different imports. Second, because of the Armington assumption, CGE modeling may lead to an overestimation of terms of trade effects. In fact, the supply curve of each good tends to appear highly rigid, since each country is producing its own good variety as a world monopolist. Finally, CGE modeling may not be optimal when policy reforms are concentrated in few sectors or product categories. In these cases, the gain obtained from a richer representation of the model economy may be easily offset by a loss of precision in calibration. CGE models are often too aggregate to yield precise simulations when policy affects few sectors defined at a narrow level.

[a] See, e.g., Vousden (1990) on the theoretical analysis of general equilibrium effects of preferential trade liberalization. On CGE analysis of non-reciprocal preferential trade arrangements, see Brown (1988, 1989). See also Francois (2000) for an evaluation of recent CGE analysis on multilateral trade negotiations.

B. CGE Methdology

1. The model

The model adopted in the analysis is the standard available version from the Global Trade Analysis Project (GTAP), which is static, where all markets are assumed to be perfectly competitive and technologies exhibit constant returns to scale (Hertel, 1997). The sector/country aggregation has been chosen in such a way as to isolate the most sensitive sectors and world regions to the simulated policy experiments.

The world is divided into geographical regions. Within each region, consumers are assumed to have identical preferences. They allocate a constant fraction of income between private consumption, public consumption and savings (Cobb-Douglas aggregation), while demands for different private goods have constant difference of elasticities (CDE) functional forms. Each product is perceived as different if produced in another country (Armington differentiation). The elasticity of substitution between any pair of domestic and imported goods is constant within each sector and the elasticity of substitution between each pair of imported goods originating from different countries is twice higher than that between domestic and foreign goods.

The production side of the model assumes fixed production coefficients between primary and intermediate inputs (Leontief aggregation). This means that substitution is not allowed in production between intermediates and primary inputs. As for intermediate inputs, they are again assumed to be “Armington differentiated”, with constant substitution elasticities (between domestic and foreign inputs, and between inputs of different foreign origin) that are the same as those used for final demand. Production factors are fully employed. Primary production factors (agricultural land, skilled and uskilled labor and capital) are mobile across sectors. The degree of intersectoral factor

mobility is captured by a constant elasticity of trasformation (CET) revenue function. Labour is immobile internationally.

Returns to factors of production accrue to households in the form of income which, in turn, feeds into consumption demand and savings. Households' savings can either finance domestic or foreign investment. Total world savings equals total world investment and expected rates of returns on savings are equalized across world regions (neoclassical closure).[1]

2. Data, aggregation and policy simulations

The data-base employed in simulations is GTAP version 5 (preliminary version), where 1997 is the base year. Trade data are combined with protection and transportation cost data to represent the fundamental international trade linkages across world regions. Detailed input-output data bases for production account for the inter-sectoral linkages within each region.[2]

The 65 original countries are aggregated into 19 regional groups. LDCs are disaggregated into Bangladesh, Malawi, United Republic of Tanzania, Uganda, Zambia and the rest of Sub-Saharan Africa (annex table III.A.1). The rest of Sub-Saharan Africa aggregate includes several non-LDCs, which will bias the results when interpreted strictly as LDCs. The country aggregation constraint was also present when an LDC was included as a very small component of a regional aggregate. In this case, the region was considered non-LDC (annex table III.A.1). Each of the Quad members appear as stand alone countries, where the European Union appears as an aggregate. As for third countries, the aggregation rule was a combination of level of development and geography.

The original 57 sectors present in GTAP5 have been further aggregated into 22 new sectors (annex table III.A.2). Services and several manufactures appear highly aggregated in the new sectoral classification, whereas goods intensively exported by LDCs (agricultural products, food, basic commodities and light manufacturing) are disaggregated.

Protection data available in the GTAP5 version includes MFN ad-valorem tariff levels and the tariff equivalents of agricultural quotas.[3] Tariff protection refers to applied tariffs, constructed by weighting each post-Uruguay Round applied MFN tariff line with actual imports. This leads to bilateral tariffs that may differ substantially from MFN tariffs. The restrictive effect of OECD countries' quantitative barriers in agriculture in 1997 is translated into tariff equivalents.[4] In GTAP, ad-valorem tariff equivalents in agriculture in a given importing country are identical for imports originating from all countries.

The policy scenarios simulated in this chapter encompass the removal of both tariff and non-tariff barriers faced by LDCs in Quad countries' markets. Since LDCs benefit from existing non-reciprocal preferential trading agreements (as a result of GSP or other trade arrangements), the protection data available in GTAP5 was modified with original data from the UNCTAD TRAINS database in order to account for effective preference margins. For each Quad country, 1998 MFN and preferential tariff data at the HS6 line have been aggregated into our GTAP sectoral definitions using world trade weights from the UN Comtrade data-base.[5] Ratios between preferential and MFN tariffs, so obtained, have been used to compute LDC preference margins granted by Quad countries in each sector. In turn, these margins have been used to update protection data (both tariffs and agricultural tariff equivalents) available in the GTAP5 database. The protection data so derived is reported, for each Quad country, in annex tables III.A.3-III.A.6, while annex table III.A.7 reports the

countries' export patterns in the base year.

The study simulates the effects of two policy scenarios:[6]

i) Elimination of all tariff and non tariff barriers against LDCs in the European Union. This experiment is aimed at simulating the effects of the EBA initiative.[7]

ii) Elimination of tariff and non tariff barriers faced by LDCs in all Quad markets.

For each case, we look at the impact of the policy reform on each countries' welfare, and on their sectoral trade and production patterns.[8] Welfare changes are further decomposed into their allocative and terms of trade components.

C. Results

1. European Union everything but arms

As expected, all beneficiary countries gain from EBA while the donor (European Union) stands to lose slightly from non-reciprocal liberalization (table III.1). Although third countries may lose or gain, the world as a whole gains from EBA. In absolute terms (equivalent variation in $millions) the largest gain accrues to the rest of Sub-Saharan Africa. It is also important to note that this gain outweighs the highest loss (that suffered by the European Union). Uganda is the beneficiary country whose gains are estimated to be the lowest. Still in absolute terms, among third countries, the rest of developed countries and the Middle East are the regions that gain the most, while the United States, Japan and the rest of Asia are those that suffer the largest losses. In percentage terms, the big gainers are small Sub-Saharan African countries (Malawi, United Republic of Tanzania and Zambia), whose gains are above one percentage point, while Bangladesh and Uganda enjoy the smallest gains. Welfare changes for both donor (European Union) and third countries, appear to be almost negligible (always well below one tenth of percentage point) when defined in percentage terms. However, the loss for the rest of Africa is almost that of the European Union when evaluated as a percentage.

Table III.1. EU-EBA: Welfare changes

		Values ($million)		
Region	Percentages	Total[a]	Terms of trade effect	Allocative effects
Australia-New Zealand	0.001	2.346	2.364	0.86
China	-0.001	-7.518	-2.362	-1.531
Rest of Developed	0.006	28.874	22.774	7.013
Japan	-0.001	-33.621	-24.431	-1.04
Rest of Asia	-0.002	-31.977	-14.158	-11.875
Bangladesh	0.02	8.194	3.629	3.342
Canada	0	1.03	1.1	0.503
United States	0	-31.86	-18.669	2.213
Latin America and Carribean	0	-6.568	-3.152	1.614
European Union	-0.004	-249.677	-248.916	0.503
Eastern Europe and FSU	0	2.348	3.183	1.057
Middle East	0.004	23.966	20.896	3.831
Rest of Africa	-0.003	-9.975	-4.994	-4.471
Malawi	1.137	29.588	25.717	6.042
United Republic of Tanzania	1.052	67.145	39.229	11.235
Zambia	0.791	30.189	37.623	-5.514
Uganda	0.03	1.982	1.307	-0.058
Rest of Sub-Saharan Africa	0.184	263.323	156.635	75.182
19 ROW	-0.001	-1.413	-0.193	0.307
Total		86.376	-2.418	89.213

a Terms of Trade and allocative effects do not match the total welfare changes (see note 9, chapter III).

Overall, the policy simulation generates an expected improvement in allocative efficiency.[9] This is especially evident for LDCs. A shift toward agricultural goods and food production (the most protected

items in the European Union) induces a better exploitation of comparative advantages in these countries. The largest source welfare changes for individual countries, however, are due to the terms of trade component. All beneficiary countries benefit from increased prices for their exports to the European Union market. Symmetrically, the European Union loses due to higher import prices from LDCs. As for third countries, Japan and the United States suffer from a negative terms of trade effect, while the rest of developed countries and the Middle East enjoy a gain associated with an improvement in the terms of trade of comparable magnitude. The terms of trade changes for other third countries are quite limited or almost negligible. This is because beneficiary LDCs are too small in world markets for EBA to cause a significant change in terms of trade for third countries.

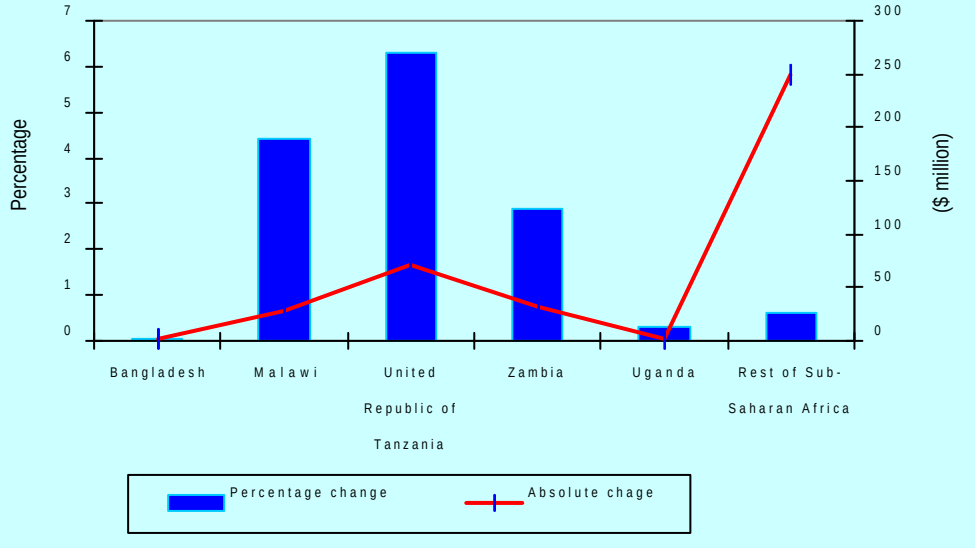
Table III.2. EU-EBA: Aggregate trade data

Region	Percentage changes	
	Exports	Terms of trade
Australia-New Zealand	0.001	0.003
China	0	-0.001
Rest of Developed	0.001	0.01
Japan	0.004	-0.005
Rest of Asia	-0.001	-0.002
Bangladesh	0.034	0.067
Canada	-0.002	0.001
United States	0.001	-0.002
Latin America and Carribean	0	-0.001
European Union	0.013	-0.01
Eastern Europe and FSU	0	0.001
Middle East	0.002	0.009
Rest of Africa	-0.012	-0.005
Malawi	4.425	4.029
United Republic of Tanzania	6.279	3.485
Zambia	2.899	3.479
Uganda	0.3	0.197
Rest of Sub-Saharan Africa	0.596	0.374
19 ROW	-0.011	-0.002

Source: UNCTAD.

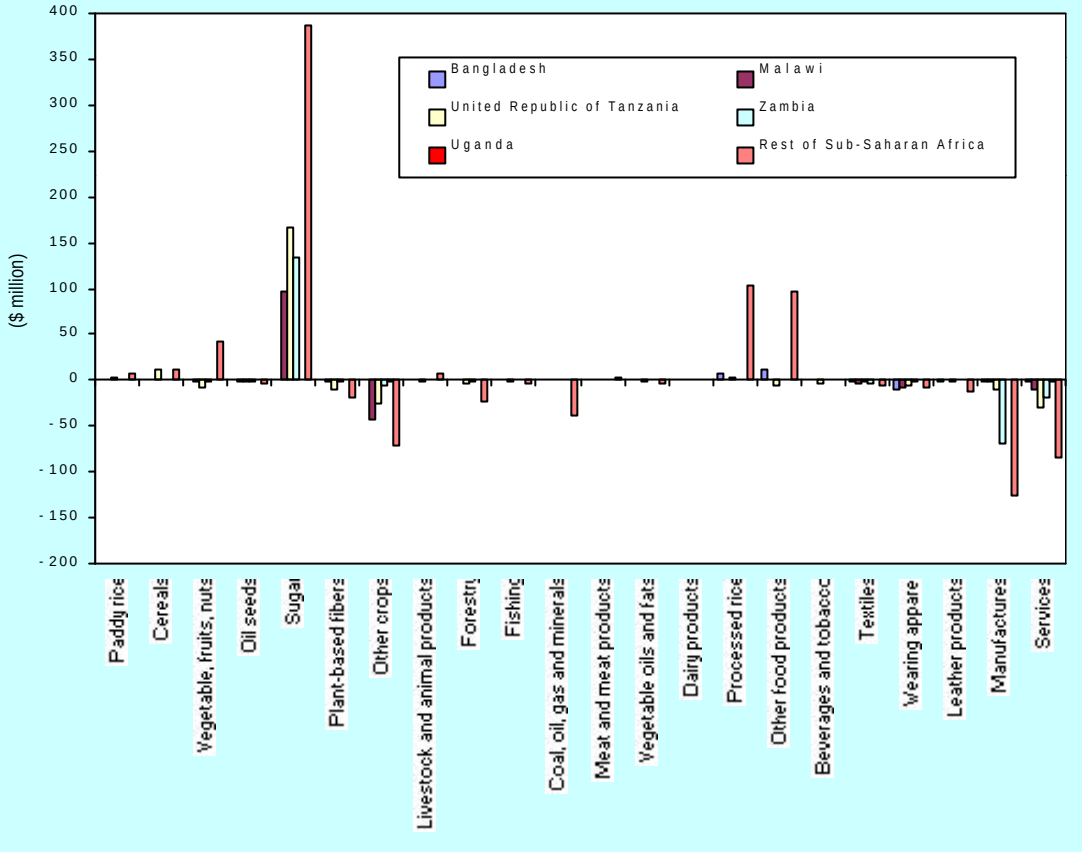
The beneficiary countries, which receive the strongest terms of trade improvement, are small economies like Malawi, United Republic of Tanzania and Zambia (table III.2). This is partly explained by the Armington structure of preferences in the GTAP model, which assumes that a product is different if it is produced in different countries. Any trade shock will then be reflected to a greater extent in price changes for small countries, whose supply is necessarily more rigid. However, in the simulations performed in this analysis, trade shocks are far from being equally strong for all beneficiary countries. In particular, the improvement in the terms of trade for a small economy like Uganda is very limited. In general the change in the terms of trade of both the European Union and third countries is small, much lower than one tenth of percentage point. As already pointed out, the reason is that the economies of the beneficiary LDCs are too small to substantially alter international prices.

Figure III.1. EU-EBA: Changes in LDC total exports



In percentage terms the export increase is the highest for Malawi, United Republic of Tanzania and Zambia (table III.2.). The largest increase in export values in

Figure III.2a. EU-EBA: Changes in LDC sectoral exports by region



absolute terms among beneficiary countries is observed for the rest of Sub-Saharan Africa (figure III.1). Export changes in percentage terms are negligible for all other countries.

As for the sectoral composition of exports, as expected, given the original bias of European Union protection against agricultural LDC exports, it is in agriculture where the largest changes are predicted to occur (figures III.2a and III.2b). The sectors where the most substantial export gains for LDCs are expected are paddy rice, processed rice, cereals and sugar. The sugar industry is a special case because of the complex policies adopted by the European Union. The sector is examined in more detail in the case study on EU-EBA and Mauritius in Chapter VI. LDC exports gains are also expected in meat and meat products and dairy products. The general equilibrium nature of the model also allows for the possibility to identify sectors where export reductions in LDCs may occur (annex tables III.B.1 - III.B.2). These are predominantly in the manufacturing industries, although in relative terms these reductions in exports are fairly small relative to the size of the increase. This relative shift in exports is most pronounced in the case of Bangladesh, where the increase in exports of food products directly offsets losses in exports of wearing apparel. This result reinforces the selective bias against exports that is inherent within discriminatory arrangements.

There are a number of interesting insights from the bilateral matrix of trade effects (annex table III.B.3). First, total imports are given as the sum of the rows, and this value for the European Union is positive. As expected the EBA proposals generate an expansion of exports from LDCs and a contraction of exports from other regions. However, the net effect of the change is an increase in total exports to the European Union. The increase in exports displaces, to some degree, exports from

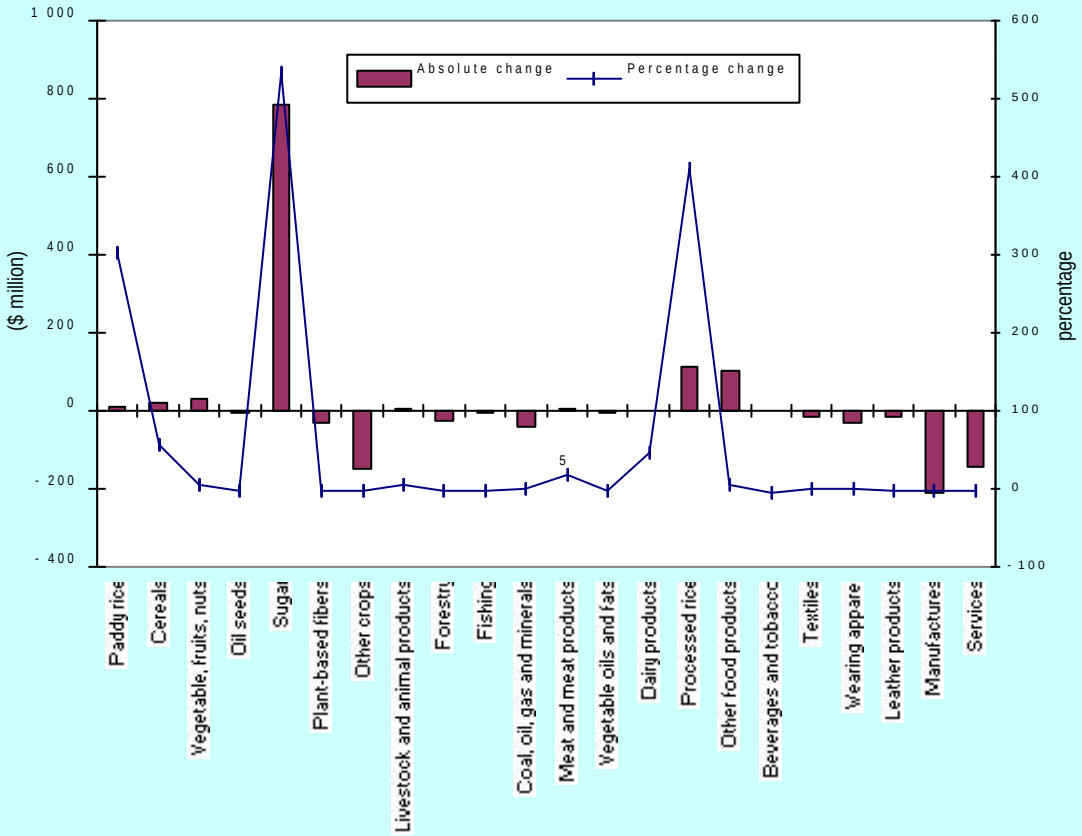
developing Asia and from the rest of Africa as defined in the country aggregations. Another interesting point is the increase in total imports in each of the LDCs. This result highlights the integrated nature of international trade, where the increased market access is exploited through an increase in imports and a more efficient allocation of resources.

In terms of changes in the composition of value added, the bulk of sectoral adjustment occur in few sectors, basically paddy and processed rice, cereals and sugar in the LDCs (annex table III.B.4). In particular, the value added in the sugar industry seems to expand significantly. The resources needed for larger production volumes in that sector appear to be mostly drawn from textiles and apparel industries and from other manufacturing, sectors that shrink as a result of EBA. The surge in export values, however, is in general much larger than the increase in value added in all sectors that expand in beneficiary LDCs. This is particularly evident in sugar and even more in rice. In the sectors that are most sensitive to preferential liberalization domestic demand in LDCs will be satisfied to a greater extent by imports from abroad.

The European Union is experiencing a value added contraction concentrated in paddy rice, sugar, and processed rice. The contraction of output in these agricultural sectors is associated with more resources available for production in other sectors. The simulation shows that it will be agriculture (plant based fibers and other crops) and manufactures, rather than services, to expand in the European Union as a result of EBA.

Thus, the CGE results suggest that the impact of EBA on European Union agricultural sector will be limited. With regard to domestic production, the only European Union sectors that

Figure III.2b. EU-EBA: Changes in LDC sectoral exports



would most likely see a significant reduction in their output are paddy and processed rice, and sugar (with cereals, vegetables, fruits and food products witnessing a small decrease in output).[10] It is to be noted however that since our CGE model is static, our simulations assumed no transitionary period for the sensitive sectors identified by the European Union (rice, sugar and bananas). Consequently, our results only reflect the situation at the end of the transition period.

2. Quad everything but arms

This policy simulation refers to a hypothetical situation in which all Quad countries import all goods from LDCs quota-free and duty-free. It is as if the EBA initiative would be adopted together by all Quad countries. The general results in this section are qualitatively and quantitatively different from the previous section. The reason is that the patterns of protection and trade are quite different across Quad countries, as shown in chapter I. In particular, the European Union and Japan have a protection structure that favors agriculture over manufacturing, whereas the United States and Canada protect textiles, clothing and footwear relative to agriculture.

In terms of welfare effects, preferential liberalization from all Quad countries brings about an overall efficiency gain at the world level (table III.3). The world gain appears nearly ten times higher with respect to that obtained when the European Union is the only donor country. Gains for individual beneficiary countries are at least twice as large when compared with those obtained with EU-EBA, except for Zambia. For some countries, gains are much higher. In particular, the welfare increase for Bangladesh is quite striking. In this case, Bangladesh is the country that is expected to gain the most both in absolute ($1,200 million) and percentage (3 per cent) terms. The gains accruing to Bangladesh only, are almost of the same magnitude as those of all Sub-Saharan LDCs. The LDC with the smallest percentage gains is still Uganda. However, the gains to this country are now ten times higher compared with the case of EU-EBA. The rest of Sub-Saharan Africa region also enjoys substantial welfare gains, at least three times bigger than those achieved when the European Union is the only donor country. The only country that does not benefit much from the other Quad countries joining the European Union is Zambia. All donor countries slightly lose from non-reciprocal PTA and the losses are negligible in percentage terms (always below 0.01 percentage points). Losses are of a similar magnitude across Quad

Table III.3. Quad-EBA: Welfare changes

		Values ($ million)		
Region	Percentages	Total[a]	Terms of trade effect	Allocative effects
Australia-New Zealand	-0.002	-8.287	-5.077	2.508
China	-0.007	-56.354	-9.993	-24.233
Rest of Developed	0.013	60.731	72.773	-5.281
Japan	-0.005	-191.293	-347.151	174.854
Rest of Asia	-0.006	-96.38	-26.792	-31.855
Bangladesh	2.93	1182.149	328.736	711.795
Canada	-0.002	-10.216	-22.123	12.941
United States	-0.008	-562.097	-392.76	-41.746
Latin America and Carribean	-0.006	-100.633	-43.508	-21.352
European Union	-0.008	-546.563	-517.396	23.256
Eastern Europe and FSU	-0.004	-28.281	-11.075	-8.382
Middle East	0.009	51.999	52.427	4.893
Rest of Africa	0	-1.122	3.882	-1.852
Malawi	2.181	56.76	49.851	10.441
United Republic of Tanzania	2.331	148.772	93.696	18.803
Zambia	0.835	31.882	40.043	-6.079
Uganda	0.351	22.862	15.604	0.97
Rest of Sub-Saharan Africa	0.742	1060.188	688.323	233.98
19 ROW	-0.002	-4.036	2.195	-1.762
Total		1010.081	-28.345	1051.899

a Terms of Trade and allocative effects do not match the total welfare changes (see note 9, chapter III).

Table III.4. Quad-EBA: Aggregate trade data

Region	Percentage changes	
	Exports	Terms of trade
Australia-New Zealand	-0.012	-0.006
China	-0.013	-0.002
Rest of Developed	0.002	0.032
Japan	0.159	-0.069
Rest of Asia	-0.013	-0.003
Bangladesh	7.583	6.204
Canada	-0.026	-0.007
United States	0.054	-0.045
Latin America and Carribean	-0.02	-0.016
European Union	0.012	-0.021
Eastern Europe and FSU	0.017	-0.004
Middle East	0.008	0.023
Rest of Africa	0.017	0.004
Malawi	8.362	7.942
United Republic of Tanzania	10.671	8.577
Zambia	3.078	3.708
Uganda	2.137	2.193
Rest of Sub-Saharan Africa	2.244	1.657
19 ROW	-0.003	0

Source: UNCTAD.

countries, except for the European Union, which is now higher, compared with the first simulation. As for third countries, when liberalization comes from all Quad countries the losses to the rest of Africa appear to be reduced to one fourth of those with EU-EBA, while the losses to Latin America rise substantially. Again, the rest of the developed countries and the Middle East are the gainers among the third countries.

For almost all the countries, gains and losses are mainly associated with terms of trade changes, with the exception of Bangladesh. In this case the allocative effects are strong enough to dominate the terms of trade effect. Liberalization from the United States and Canada (especially in textiles and apparel) seems to induce a substantial and beneficial reallocation of resources toward those sectors.

As for trade data (table III.4), we still note that the percentage improvement in terms of trade is still stronger for small Sub-Saharan LDCs (e.g. Malawi, United Republic of Tanzania). Compared with just the European Union implementing the proposal, however, the terms of trade improvement for Bangladesh is much stronger. Export values for Malawi and United Republic of Tanzania increase in percentage terms. Also Bangladesh managed to increase substantially its export revenues, translating into a very substantial rise in export values in absolute terms (figure III.3). Looking at the direction of trade flows (annex table III.C.3)

Figure III.3. Quad-EBA: Changes in LDC total exports

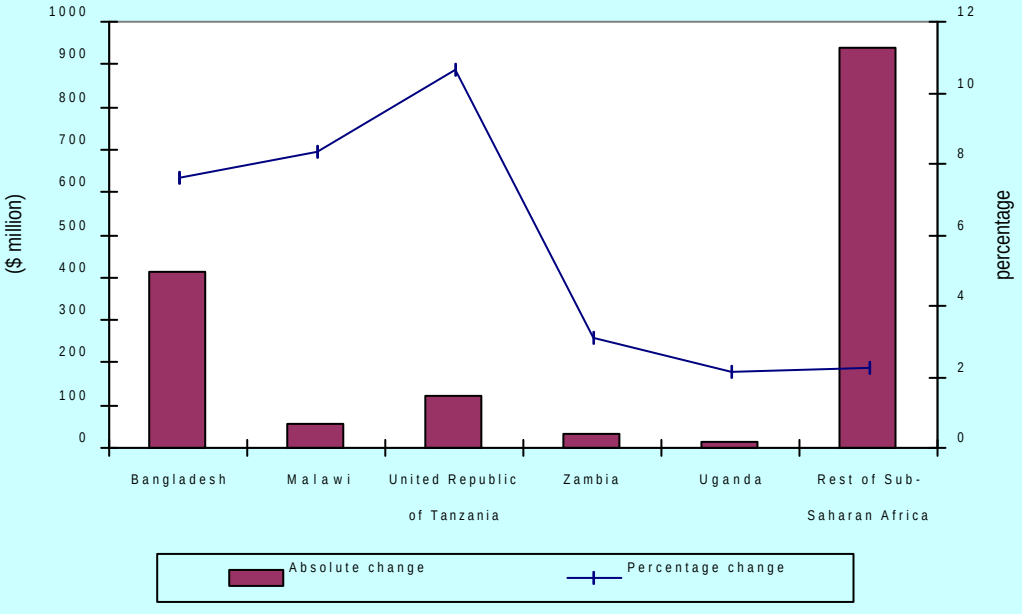
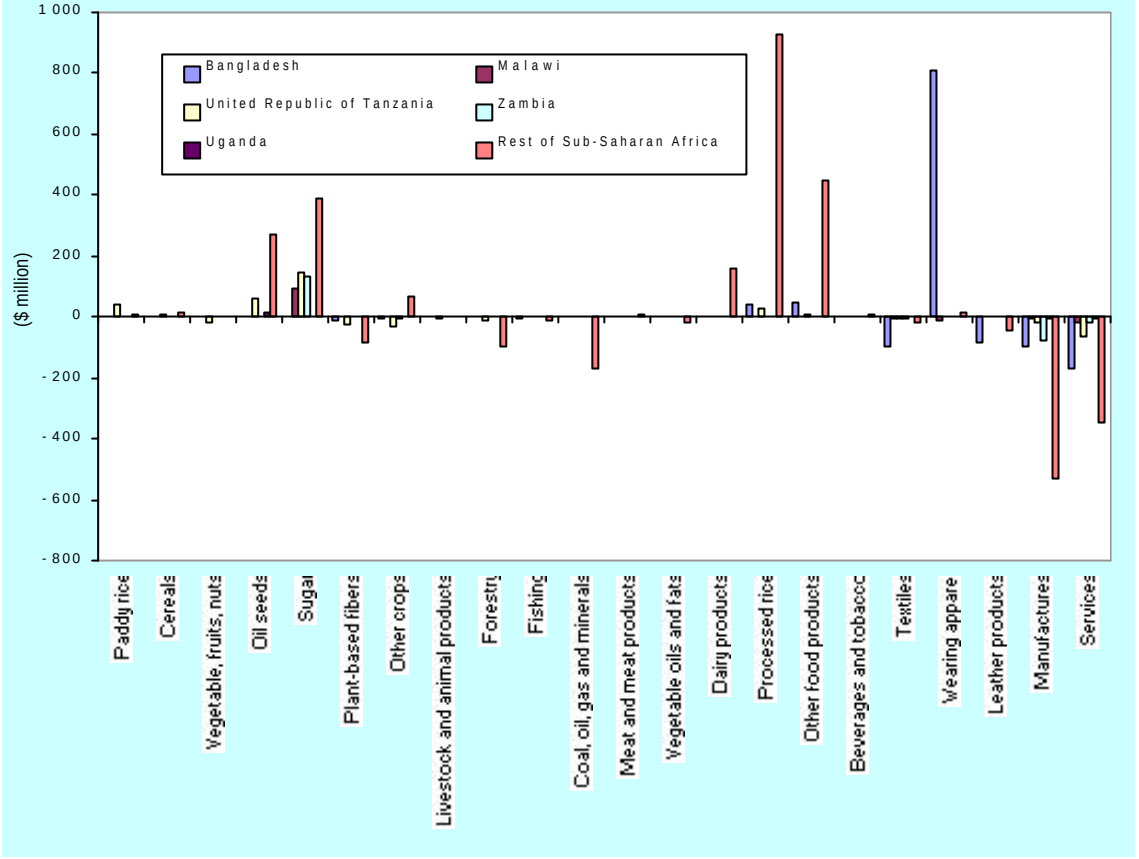


Figure III.4a. Quad-EBA: Changes in LDC sectoral exports by region

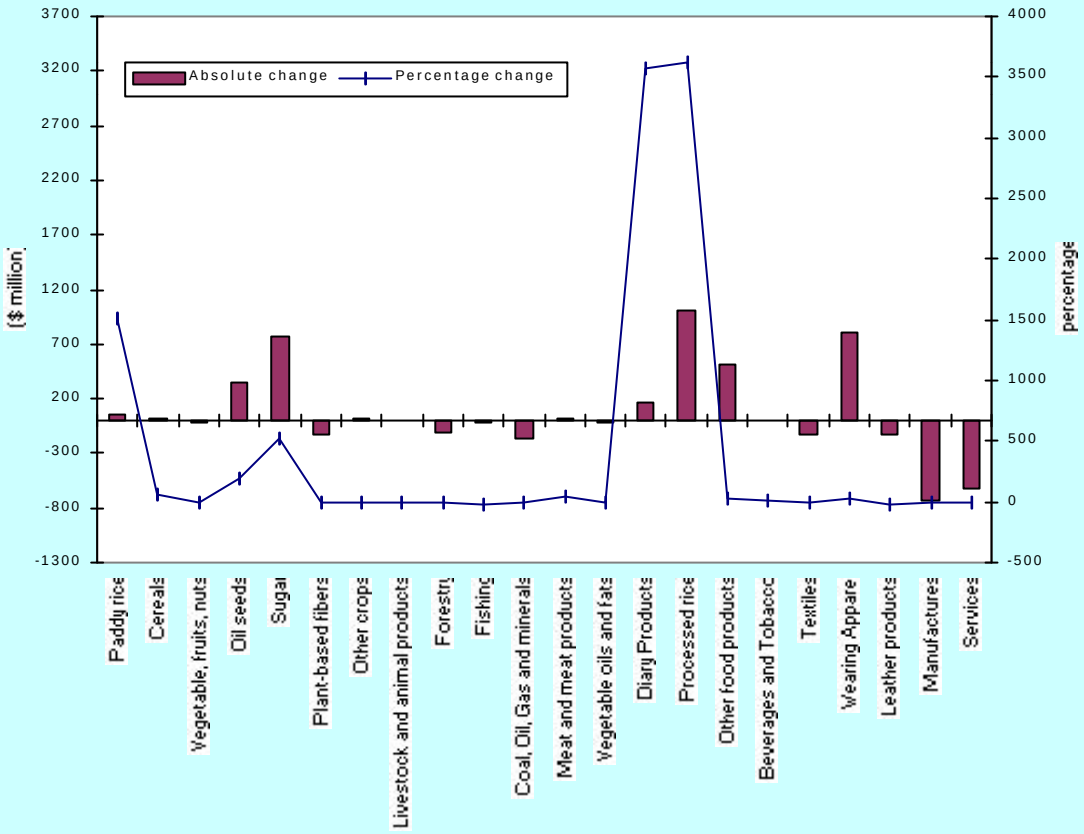


LDCs can be devided into three groups: those whose exports increase is mainly directed towards the European Union (United Republic of Tanzania, Zambia, Uganda), those that export increasingly toward the United States at the expense of the European Union (Bangladesh) and those that export more to Japan, reducing sales to the European Union (rest of Sub-Saharan Africa).

The sectoral data is provided in annex tables III.C.1 and III.C.2. Again, in almost all beneficiary LDCs there is a strong jump in the export of paddy and processed rice, cereals and sugar, as in the case of EBA. Dairy products and other food exports from LDCs increase as a consequence of the removal of the high protection in Japan. It is also noted that in Bangladesh and the rest of Sub-Saharan Africa, there is a remarkable increase in wearing apparel exports, most probably associated with the removal of trade barriers in the United States. The 30 per cent increase in Bangladesh wearing apparel exports and the 88 per cent increase in other food exports from the rest of Sub-Saharan Africa account for very high flows in absolute value. They explain a large part of the Bangladesh export increase to the United States and of the rise in exports from the rest of Sub-Saharan Africa to Japan.

Comparing the changes occurring in the sectoral composition of exports values with those relating to value added (figures III.4a and III.4b), it is again possible to see that, in general, the adjustment occurring in value added in sensitive sectors is much smaller than that occurring in exports. In particular, in almost all LDCs, the supply of rice does not seem to adjust sufficiently to keep up with the export boost. Necessarily, domestic demand is satisfied by increased exports. The same

Figure III.4b. Quad-EBA: Changes in LDC sectoral exports



phenomenon does not seem to apply to manufacturing sectors, like apparel. In Bangladesh, apparel value added rises significantly. The extent of production redirection associated with non-reciprocal PTA thus seems related to supply rigidities. In agriculture, these rigidities are in all likelihood stronger.

Looking at the adjustment in donor countries, the European Union still face the biggest contraction in value added in paddy rice, processed rice and sugar (about –3 per cent in each sector) (annex table III.C.4). The adjustment dynamics in Japan are quite similar, although the reduction in sugar value added is very limited. In the United States and Canada, adjustment seems much easier, as sectoral reallocations are of a limited magnitude and spread across a higher number of sectors. Only processed rice in the United States undergoes contraction comparable to those expected for the European Union (-2.2 per cent).

D. Conclusions

Non-reciprocal preferential trade liberalization targeted to LDCs is likely to entail non-negligible gains to beneficiary countries coupled with negligible losses for donor and third countries. Overall, gains at the world level are expected due to improved allocation efficiency. When the only EBA implenting country is the European Union, the gains accrue mainly to Sub-Saharan African countries and are mostly explained by improved terms of trade for beneficiaries. In this case, the key sectors are paddy and processed rice and sugar. Increased exports from LDCs are directed almost exclusively to the European Union. When liberalization occurs in all Quad countries, the benefits

from duty- and quota-free market access increase more than proportionally. Overall, welfare gains are ten times higher compared with only the European Union as the donor country, all beneficiary countries gain notably more, and countries like Bangladesh and the Rest of Sub-Saharan Africa enjoy disproportionately higher gains. Again, gains to individual countries are mostly due to improved terms of trade, with the exception of Bangladesh, for which allocative gains are prevailing. In this case, in addition to rice and sugar, new key sectors can be identified: wearing apparel, other food and dairy products. Increased export flows from some LDCs are still mainly directed to the European Union under this scenario. For other beneficiary countries, however, the rise in exports is basically targeted to the United States market (Bangladesh), for other (rest of Sub-Saharan Africa) to Japan. Liberalization from all Quad countries will entail more than proportional gains compared with EBA because this will allow for a much better exploitation of the different comparative advantages of different countries. Some Quad countries are relatively more protected in agriculture and food products (European Union, Japan) others in textiles and apparel (the United States). Some LDCs have comparative advantages in agriculture and food (Sub-Saharan African LDCs) others in apparel (Bangladesh). Differences in the patterns of protection across Quad countries, coupled with differences in comparative advantages across LDCs explain why a joint action from all Quad countries can be much more effective than isolated initiatives of single donor countries.

Some caveats to our analysis must be taken into account. First, the analysis is static and assumes that all the markets clear. This has several implications. Being static, the analysis neglects important aspects of trade reform related to technology transfer, learning by doing and knowledge accumulation. In this respect, the model likely underestimates the impact of non-reciprocal PTAs on beneficiary countries. Being a long-run one, the analysis performed by the model neglects adjustment issues. All prices are flexible, and factors are always fully employed. In the short-run, these issues may instead be relevant. Moreover, structural rigidities in LDCs may even be a persistent phenomenon (supply constraints, export capacity constraints). This feature of the model leads to a possible exaggeration of the effects of trade reforms. In particular, perfectly flexible prices, coupled with Armington differentiation tend to produce very strong terms of trade effects.

Second, the model neglects institutional aspects that crucially affect the impact of preferential trade liberalization. Due to complex administrative procedures, some LDCs may not be able to take full advantage from the liberalization initiatives. In this sense, the role of rules of origins are of great relevance. Simulations have been performed under the assumption that a product exported from a given country, can always benefit from preferential treatment in destination countries, irrespective of the share of value added originating in the exporting country. Since the model allows for trade in intermediates, some of the trade flows captured in the simulations are aimed at shifting value added from non-beneficiary to beneficiary countries in order to benefit from preferential margins. In reality, non-reciprocal preferential liberalization is generally accompanied by rules of origin that specify minimum value added shares performed in the exporting country as a condition for preferential treatment. Neglecting the role of rules of origin leads to an overestimation of the effects of the liberalization initiatives considered.

NOTES

[1] See Hertel (1997), pp. 54-60, for a description of the equations governing the international allocation of investment in GTAP.

[2] Further details on GTAP databases are found on the GTAP website: http://www.agecon.purdue.edu/gtap.

[3] See Hertel (1997), pp. 87-109, for a description of protection data availble in GTAP2 database, their sources and construction. See on http://www.agecon.purdue.edu/gtap further details on the GTAP4 datatbase.

[4] The procedure followed to obtain quota tariff equivalents is described in Tsigas, Ch. 13.2 of the Documentation on GTAP4 available at the website http://www.agecon.purdue.edu/gtap.

[5] For each Quad country, the lowest preferential tariffs available to LDCs have been selected to compute preference margins. Weights have been constructed using world trade flows instead of bilateral flows to avoid excessive underestimation of preferential tariffs. Especially in Japan, agricultural imports from LDCs are very low because trade barriers are nearly prohibitive. Using bilateral trade flows in such cases would lead to a substantial underestimation of the protection faced by LDCs.

[6] The policy experiments performed are analogous to one found in Ianchovichina, Mattoo and Olarreaga (2000). Results, though, cannot be closely compared due to the following reasons: First, beneficiary countries in this case, all LDCs, whereas in Ianchovichina, Mattoo and Olarreaga (2000) preferential market access is targeted to Sub-Saharan African countries only. In particular, from the simulations it is possible to evaluate the effects of preferential trade liberalization on the Bangladesh economy, the most important non-African LDC and the only one for which it is possible to have disaggregated data in GTAP5 database. Second, the analysis is conducted at a higher level of disaggregation, both sectoral and geographical. Finally, data in the simulations refer to 1997, whereas in Ianchovichina, Mattoo and Olarreaga (2000) the base year is 1995 (GTAP4 database).

[7] Only the end results of the EBA initiative are simulated, without taking into account the transitory period provided for liberalization in some sensitive sectors.

[8] The welfare indicator used in the simulations takes into account changes in real income and in relative prices. Technically, welfare changes correspond to equivalent income variations, e.g. to the monetary transfers needed to induce ex-post utility levels at ex-ante relative prices.

[9] The effects on welfare can be decomposed into allocative effect (associated with the allocation of primary factors), terms of trade effect and intermediate good prices effect.

[10] The same conclusion is advanced by the European Commission study (EC 2001).

Annex tables III.A
Model aggregations and benchmark data

Annex table III.A.1. Regional aggregations

	New regions	Original GTAP regions
1	Australia-New Zealand	Australia, Heard & McDonald Islands, Norfolk Island, New Zealand
2	China	China
3	Rest of Developed	Hong Kong (China), EFTA
4	Japan	Japan
5	Rest of Asia	Republic of Korea, Indonesia, East Timor, Malaysia, Philippines, Singapore, Thailand, Viet Nam, Taiwan Province of China, India, Sri Lanka, Bhutan, Maldives, Nepal, Pakistan.
6	Bangladesh	Bangladesh
7	Canada	Canada
8	United States	United States of America, American Samoa, Guam, Northern Mariana Islands, Puerto Rico, United States Virgin Islands.
9	Latin America and the Carribean	Mexico, Central America and the Caribbean: Antigua & Barbuda, Aruba, Bahamas, Barbados, Belize, British Virgin Islands, Cayman Islands, Costa Rica, Cuba, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Haiti, Honduras, Jamaica, Montserrat, Netherlands Antilles, Nicaragua, Panama, Saint Christopher and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago, Turks and Caicos Isl. Colombia, Peru, Venezuela, Bolivia, Ecuador, Argentina, Brazil, Chile, Uruguay, Guyana, Paraguay, Suriname.
10	European Union	European Union
11	Eastern Europe and FSU	Hungary, Poland, Bulgaria, Czech Republic, Romania, Slovakia, Slovenia, Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, Uzbekistan.
12	Middle East	Turkey, Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, United Arab Emirates, Yemen, Yemen Democratic.
13	Rest of Africa	Morocco, Western Sahara, Algeria, Egypt, Libyan Arab Jamahiriya, Tunisia, Botswana, Lesotho, Namibia, South Africa, Swaziland, Angola, Mauritius, Zimbabwe.
14	Malawi	Malawi
15	United Republic of Tanzania	United Republic of Tanzania
16	Zambia	Zambia
17	Uganda	Uganda
18	Rest of Sub-Saharan Africa	Rest of Sub-Saharan Africa: Benin, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Liberia, Madagascar, Mali, Mauritania, Mayotte, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, Sudan, Togo, Zaire.
19	ROW (Rest of the World)	Rest of World: Afghanistan, Albania, Andorra, Bermuda, Bosnia and Herzegovina, British Indian Ocean Territories, Brunei, Myanmar, Cambodia, Christmas Island, Cocos (Keeling) Islands, Cook Islands, Croatia, Cyprus, Falkland Islands, Faroe Islands, Fiji, French Polynesia, Gibraltar, Greenland, Johnston Island, Kiribati, Lao People's Democratic Republic, Macao, Macedonia, Malta, Marshall Islands, FS Micronesia, Mongolia, Nauru, New Caledonia, Niue, Democratic People's Republic of Korea, Pacific Islands, Palau, Papua New Guinea, Pitcairn Islands, Saint Helena, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, Wake Island, Wallis and Futura Isl., Western Samoa, Federal Republic of Yugoslavia, French Guiana, Guadeloupe, Vatican Holy See, Martinique, Monaco, Reunion, Saint Pierre and Miquelon, San Marino, Mozambique.

Annex table III.A.2. Sectoral aggregations

Original GTAP5 sectors	New sectors
Paddy rice	Paddy rice
Wheat	Wheat and other cereals
Cereal grains nec	Wheat and other cereals
Vegetables, fruit, nuts	Vegetable, fruit, nuts
Oil seeds	Oil seeds
Sugar cane, sugar beet	Sugar
Plant-based fibers	Plant-based fibers
Crops nec	Other crops
Cattle,sheep,goats,horses	Animals and animal products
Animal products nec	Animals and animal products
Raw milk	Animals and animal products
Wool, silk-worm cocoons	Animals and animal products
Forestry	Forestry
Fishing	Fishing
Coal	Coal, Oil, Gas and minerals
Oil	Coal, Oil, Gas and minerals
Gas	Coal, Oil, Gas and minerals
Minerals nec	Coal, Oil, Gas and minerals
Meat: cattle,sheep,goats,horse	Meat and meat products
Meat products nec	Meat and meat products
Vegetable oils and fats	Vegetable oils and fats
Dairy products	Dairy products
Processed rice	Processed rice
Sugar	Sugar
Food products nec	Food prod. nec
Beverages and tobacco products	Beverages and tobacco products
Textiles	Textiles
Wearing apparel	Wearing apparel
Leather products	Leather products
Wood products	Other manufactures
Paper products, publishing	Other manufactures
Petroleum, coal products	Other manufactures
Chemical,rubber,plastic prods	Other manufactures
Mineral products nec	Other manufactures
Ferrous metals	Other manufactures
Metals nec	Other manufactures
Metal products	Other manufactures
Motor vehicles and parts	Other manufactures
Transport equipment nec	Other manufactures
Electronic equipment	Other manufactures
Machinery and equipment nec	Other manufactures
Manufactures nec	Other manufactures
Electricity	Services
Gas manufacture, distribution	Services
Water	Services
Construction	Services
Trade	Services
Transport nec	Services
Sea transport	Services
Air transport	Services
Communication	Services
Financial services nec	Services
Insurance	Services
Business services nec	Services
Recreation and other services	Services
PubAdmin/Defence/Health/ Education	Services
Dwellings	Services

Annex table III.A.3. Canada: Patterns of protection, by sector and country

Sectors	Australia-New Zealand	China	Other developed	Japan	Rest of Asia	Bangladesh	Canada	United States	Latin America and Caribbean	European Union	Eastern Europe and FSU	Middle East	North Africa	Malawi	United Republic of Tanzania	Zambia	Uganda	Rest of Sub-Saharan Africa	19 ROW
Paddy rice	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cereals	43.8	32.3	37.3	8.9	32.0	8.9	0	13.1	13.8	11.7	26.5	39.3	42.5	8.9	8.9	8.9	9.0	13.3	32.3
Vegetable, fruits, nuts	1.9	1.9	1.9	1.9	1.9	1.0	0	1.9	1.9	1.9	1.9	1.9	1.9	1.0	1.0	1.0	1.0	1.0	1.9
Oil seeds	0.0	0.0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Sugar	4.9	4.8	4.7	4.9	4.1	0.3	0	4.9	4.9	4.8	4.9	4.2	4.9	0.3	0.0	0.3	0.3	0.3	4.3
Plant-based fibers	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other crops	2.4	2.4	2.4	2.4	2.4	0.5	0	2.4	2.4	2.4	2.4	2.4	2.4	0.5	0.5	0.5	0.5	0.5	2.4
Livestock and animal products	17.9	17.0	15.9	17.7	17.8	5.5	0	15.5	13.8	16.7	9.4	3.2	7.8	15.5	14.8	13.9	2.6	5.2	8.6
Forestry	2.4	1.8	0.0	0.0	0.2	0.0	0	0.0	0.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fishing	0.2	0.1	0.0	0.1	0.0	0.0	0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Coal, oil, gas and minerals	0.1	0.0	0.0	0.1	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Meat and meat products	17.4	67.1	65.6	46.8	51.9	41.8	0	47.6	44.3	63.9	53.7	25.9	33.1	58.1	56.2	56.5	27.7	55.9	51.1
Vegetable oils and fats	8.6	8.6	8.6	8.6	8.6	6.0	0	8.6	8.6	8.6	8.6	8.6	8.6	6.0	6.0	6.0	6.0	6.0	8.6
Dairy products	214.8	214.8	214.8	214.8	214.8	212.9	0	214.8	214.8	214.8	214.8	214.8	214.8	212.9	212.9	212.9	212.9	212.9	214.8
Processed rice	0.7	0.7	0.7	0.7	0.7	0.0	0	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.7
Other food products	14.1	14.1	14.1	14.1	14.1	11.3	0	14.1	14.1	14.1	14.1	14.1	14.1	11.3	11.3	11.3	11.3	11.3	14.1
Beverages and tobacco	62.5	62.5	62.5	62.5	62.5	49.4	0	62.5	62.5	62.5	62.5	62.5	62.5	49.4	49.4	49.4	49.4	49.4	62.5
Textiles	8.3	18.4	13.7	13.9	5.3	1.5	0	0.0	1.0	13.0	14.5	6.5	4.9	0.0	0.0	0.0	0.0	0.0	12.3
Wearing apparel	11.7	20.5	11.2	19.5	10.9	6.4	0	0.0	2.7	20.7	21.9	6.8	10.0	0.0	0.0	0.0	0.0	4.7	1.7
Leather products	2.2	16.6	9.9	6.4	8.1	3.6	0	0.0	1.2	14.1	11.6	11.0	3.0	0.0	2.4	0.0	0.0	3.9	6.0
Manufactures	1.5	4.8	2.9	4.0	1.3	0.2	0	0.0	0.2	3.2	3.2	1.3	0.6	0.0	0.0	0.1	0.1	0.0	0.0
Services	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: GTAP database and UNCTAD-TRAINS database.

Annex table III.A.4. European Union: Patterns of protection, by sector and country

Sectors	Australia-New Zealand	China	Other developed	Japan	Rest of Asia	Bangladesh	Canada	United States	Latin America and Caribbean	European Union	Eastern Europe and FSU	Middle East	North Africa	Malawi	United Republic of Tanzania	Zambia	Uganda	Rest of Sub-Saharan Africa	19 ROW
Paddy rice	64.9	64.9	64.9	64.9	64.9	61.6	64.9	64.9	64.9	0	64.9	64.9	64.9	61.6	61.6	61.6	61.6	61.6	64.9
Cereals	60.2	45.1	48.8	45.1	48.6	37.0	59.4	46.1	46.1	0	47.0	51.1	50.9	37.0	37.1	37.1	37.1	37.1	47.2
Vegetable, fruits, nuts	14.5	14.5	14.5	14.5	14.5	2.3	14.5	14.5	14.5	0	14.5	14.5	14.5	2.3	2.3	2.3	2.3	2.3	14.5
Oil seeds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sugar	76.4	76.7	76.4	76.4	81.3	80.4	77.0	76.4	76.8	0	76.6	101.4	76.5	75.0	103.0	75.0	85.0	76.5	76.9
Plant-based fibers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other crops	3.1	3.1	3.1	3.1	3.1	0.0	3.1	3.1	3.1	0	3.1	3.1	3.1	0.0	0.0	0.0	0.0	0.0	3.1
Livestock and animal products	1.9	7.4	7.6	32.5	7.1	5.4	12.8	18.3	5.8	0	16.4	13.4	6.4	3.5	4.5	2.8	3.4	3.8	10.9
Forestry	2.4	0.8	0.0	0.2	1.4	0.0	0.6	1.0	3.5	0	0.0	0.1	1.7	0.0	0.0	0.0	0.0	0.0	0.6
Fishing	3.4	0.3	0.0	0.0	0.3	0.0	8.0	7.3	4.3	0	6.3	1.0	11.3	0.0	0.0	0.0	0.0	0.0	10.7
Coal, oil, gas and minerals	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Meat and meat products	83.7	32.0	34.7	61.1	35.4	13.0	84.9	65.2	65.3	0	38.1	45.7	75.1	9.7	10.2	9.1	19.2	14.2	54.5
Vegetable oils and fats	11.4	11.4	11.4	11.4	11.4	0.2	11.4	11.4	11.4	0	11.4	11.4	11.4	0.2	0.2	0.2	0.2	0.2	11.4
Dairy products	87.7	87.7	87.7	87.7	87.7	51.0	87.7	87.7	87.7	0	87.7	87.7	87.7	51.2	51.2	51.2	51.2	51.2	87.7
Processed rice	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	0	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4
Other food products	28.8	28.8	28.8	28.8	28.8	2.0	28.8	28.8	28.8	0	28.8	28.8	28.8	2.5	2.1	2.1	2.1	2.1	28.8
Beverages and tobacco	8.3	8.3	8.3	8.3	8.3	1.2	8.3	8.3	8.3	0	8.3	8.3	8.3	1.2	1.2	1.2	1.2	1.2	8.3
Textiles	1.3	10.1	3.6	9.1	8.3	0.0	8.6	9.1	5.5	0	5.6	2.0	6.0	0.0	0.0	0.0	0.0	0.0	10.3
Wearing apparel	7.9	11.1	8.8	12.6	8.4	0.0	11.3	11.5	5.6	0	7.4	1.4	9.5	0.0	0.0	0.0	0.0	0.0	11.7
Leather products	0.3	9.5	0.2	6.3	3.4	0.0	6.7	4.6	2.0	0	4.9	1.5	2.3	0.0	0.0	0.0	0.0	0.0	7.1
Manufactures	2.3	5.4	0.1	5.2	2.2	0.0	2.0	2.9	1.4	0	1.9	1.2	1.6	0.0	0.0	0.0	0.0	0.0	3.2
Services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: GTAP database and UNCTAD-TRAINS database.

Annex table III.A.5. Japan: Patterns of protection, by sector and country

Sectors	Australia-New Zealand	China	Other developed	Japan	Rest of Asia	Bangladesh	Canada	United States	Latin America and Caribbean	European Union	Eastern Europe and FSU	Middle East	North Africa	Malawi	United Republic of Tanzania	Zambia	Uganda	Rest of Sub-Saharan Africa	19 ROW
Paddy rice	409.0	409.0	409.0	0	409.0	338.5	409.0	409.0	409.0	409.0	409.0	409.0	409.0	338.5	338.5	338.5	338.5	338.5	409.0
Cereals	224.3	30.8	141.3	0	86.2	20.2	207.2	65.4	21.1	20.4	108.9	153.2	54.4	20.2	20.4	20.2	20.6	31.4	117.5
Vegetable, fruits, nuts	44.9	44.9	44.9	0	44.9	33.1	44.9	44.9	44.9	44.9	44.9	44.9	44.9	33.1	33.1	33.1	33.1	33.1	44.9
Oil seeds	76.4	76.4	76.4	0	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4
Sugar	116.1	107.1	116.1	0	115.1	110.6	116.1	116.1	115.6	111.8	116.1	97.1	115.9	116.1	1.9	95.7	116.1	92.0	114.3
Plant0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other crops	22.1	22.1	22.1	0	22.1	19.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	19.1	19.1	19.1	19.1	19.1	22.1
Livestock and animal products	32.5	11.8	24.3	0	6.2	7.1	13.3	43.0	13.0	46.3	11.9	53.9	38.0	5.0	14.6	36.9	17.4	23.4	19.0
Forestry	0.1	0.9	0.0	0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fishing	2.3	5.3	0.0	0	3.0	3.9	4.4	5.7	3.8	3.4	4.9	2.7	0.0	0.0	0.0	0.0	0.0	0.0	4.6
Coal, oil, gas and minerals	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Meat and meat products	37.7	58.0	52.2	0	58.1	46.6	52.0	43.9	56.9	57.4	52.3	48.7	45.0	53.0	52.9	52.4	40.9	53.0	47.2
Vegetable oils and fats	6.6	6.6	6.6	0	6.6	4.0	6.6	6.6	6.6	6.6	6.6	6.6	6.6	4.0	4.0	4.0	4.0	4.0	6.6
Dairy products	287.0	287.0	287.0	0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0
Processed rice	409.0	409.0	409.0	0	409.0	338.5	409.0	409.0	409.0	409.0	409.0	409.0	409.0	338.5	338.5	338.5	338.5	338.5	409.0
Other food products	38.3	38.3	38.3	0	38.3	30.5	38.3	38.3	38.3	38.3	38.3	38.3	38.3	30.5	30.5	30.5	30.5	30.5	38.3
Beverages and tobacco	16.2	16.2	16.2	0	16.2	13.4	16.2	16.2	16.2	16.2	16.2	16.2	16.2	13.4	13.4	13.4	13.4	13.4	16.2
Textiles	0.6	4.8	2.5	0	1.2	0.0	10.3	10.0	3.3	2.4	1.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wearing apparel	12.6	5.4	1.9	0	4.0	0.0	13.5	11.3	4.4	0.0	6.7	6.3	5.6	0.0	0.0	0.0	0.0	0.0	8.3
Leather products	6.4	7.4	0.0	0	4.0	0.1	12.7	12.4	11.7	3.2	16.6	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Manufactures	0.6	0.0	0.0	0	0.2	0.0	1.2	0.6	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Services	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: GTAP database and UNCTAD-TRAINS database.

Annex table III.A.6. United States: Patterns of protection, by sector and country

Sectors	Australia-New Zealand	China	Other developed	Japan	Rest of Asia	Bangladesh	Canada	United States	Latin America and Caribbean	European Union	Eastern Europe and FSU	Middle East	North Africa	Malawi	United Republic of Tanzania	Zambia	Uganda	Rest of Sub-Saharan Africa	19 ROW
Paddy rice	0.0	4.9	4.9	4.9	4.9	0.0	4.9	0.0	4.9	4.9	4.9	4.9	4.9	0.0	0.0	0.0	0.0	0.0	4.9
Cereals	0.9	1.4	1.6	0.6	1.3	0.0	1.5	0.0	0.6	0.6	0.7	1.8	1.8	0.0	0.0	0.0	0.0	0.0	1.4
Vegetable, fruits, nuts	4.7	4.7	4.7	4.7	4.7	0.7	4.7	0.0	4.7	4.7	4.7	4.7	4.7	0.7	0.7	0.7	0.7	0.7	4.7
Oil seeds	17.7	17.7	17.7	17.7	17.7	13.9	17.7	0.0	17.7	17.7	17.7	17.7	17.7	13.9	13.9	17.7	13.9	13.9	17.7
Sugar	53.4	53.4	53.4	53.4	52.6	13.0	51.5	0.0	53.4	51.9	53.4	45.6	53.4	13.6	0.4	11.2	13.6	13.5	53.1
Plant-based fibers	9.7	9.7	9.7	9.7	9.7	9.7	9.7	0.0	9.7	9.7	9.7	9.7	9.7	9.7	9.7	0.0	0.0	9.7	9.7
Other crops	21.5	21.5	21.5	21.5	21.5	16.2	21.5	0.0	21.5	21.5	21.5	21.5	21.5	16.2	16.2	16.2	16.2	16.2	21.5
Livestock and animal products	0.8	0.6	0.7	1.0	0.6	0.0	0.9	0.0	0.9	0.9	0.5	0.5	0.6	0.0	0.0	0.0	0.0	0.0	0.5
Forestry	0.3	1.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fishing	0.7	0.2	0.3	0.7	0.2	0.0	0.0	0.0	0.2	0.9	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.3
Coal, oil, gas and minerals	0.3	0.7	0.3	0.4	0.3	0.0	0.0	0.0	0.2	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.6
Meat and meat products	5.2	3.7	3.9	4.6	4.5	1.8	4.5	0.0	4.3	3.8	3.8	4.7	4.7	1.6	1.7	1.6	2.0	1.7	3.9
Vegetable oils and fats	4.3	4.3	4.3	4.3	4.3	0.0	4.3	0.0	4.3	4.3	4.3	4.3	4.3	0.0	0.0	0.0	0.0	0.0	4.3
Dairy products	42.5	42.5	42.5	42.5	42.5	26.4	42.5	0.0	42.5	42.5	42.5	42.5	42.5	26.4	26.4	26.4	26.4	26.4	42.5
Processed rice	5.3	5.3	5.3	5.3	5.3	0.0	5.3	0.0	5.3	5.3	5.3	5.3	5.3	0.0	0.0	0.0	0.0	0.0	5.3
Other food products	11.4	11.4	11.4	11.4	11.4	5.5	11.4	0.0	11.4	11.4	11.4	11.4	11.4	5.5	5.5	5.5	5.5	5.5	11.4
Beverages and tobacco	3.0	3.0	3.0	3.0	3.0	0.4	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.4	0.4	0.4	0.4	0.4	3.0
Textiles	8.7	8.7	11.9	10.8	11.3	11.7	0.0	0.0	6.7	9.7	10.9	12.2	10.8	6.2	14.7	6.5	12.0	8.4	12.5
Wearing apparel	9.1	11.3	12.7	11.5	14.3	12.3	0.0	0.0	8.4	12.4	14.8	17.8	12.7	12.4	14.3	6.5	12.0	8.4	14.8
Leather products	4.9	15.5	10.4	10.6	14.6	9.4	0.0	0.0	6.2	8.1	7.4	11.0	4.8	12.0	14.0	14.2	20.9	11.2	5.2
Manufactures	1.7	2.6	2.6	2.4	1.2	0.0	0.0	0.0	0.3	2.6	1.6	3.4	1.8	0.0	0.1	0.0	0.0	0.0	3.5
Services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: GTAP database and UNCTAD-TRAINS database.

Annex table III.A.7. Total exports by country and sector, 1997

($ Millions)

Sectors	Australia-New Zealand	China	Other developed	Japan	Rest of Asia	Bangladesh	Canada	United States	Latin America and Caribbean	European Union	Eastern Europe and FSU	Middle East	North Africa	Malawi	United Republic of Tanzania	Zambia	Uganda	Rest of Sub-Saharan Africa	19 ROW	Total	LDCs
Paddy rice	26.8	97.9	0.4	0.6	387.5	0.0	0.7	331.5	189.3	184.5	4.7	2.0	5.6	0.1	0.8	0.0	0.0	2.2	5.8	1 240.5	3.1
Cereals	2 452.6	952.0	6.6	0.9	92.3	0.0	4 220.8	10 603.8	3 302.9	7 695.1	1 041.1	239.4	389.9	0.9	11.5	1.1	1.5	26.2	65.1	31 103.7	41.2
Vegetable, fruits, nuts	1 211.7	1 283.7	19.2	96.3	2 304.6	6.3	738.7	5 053.4	8 182.1	17 454.7	1 033.4	2 683.2	1 519.6	4.4	79.3	7.7	10.8	722.8	453.5	42 865.6	831.4
Oil seeds	175.6	293.7	7.2	2.2	350.6	0.0	1 339.6	7 776.0	2 986.0	1 587.6	762.5	72.0	77.1	4.3	11.9	2.6	2.3	163.3	122.2	15 737.0	184.5
Sugar	635.0	144.0	31.4	6.3	1 517.8	0.3	95.6	79.1	3 969.2	3 249.3	565.5	49.4	847.1	19.5	13.5	24.6	0.3	89.1	162.8	11 499.7	147.2
Plant-based fibers	958.8	4.1	24.0	4.8	581.6	89.8	0.2	2 805.3	623.3	519.1	2 062.5	508.2	310.0	5.9	133.7	10.3	18.6	1 189.5	39.7	9 889.5	1 447.9
Other crops	307.6	1 237.4	158.4	140.9	4 890.6	32.3	552.1	3 030.4	11 702.7	8 715.3	393.6	1 082.7	1 002.2	430.2	234.9	30.1	444.8	4 067.0	492.4	38 945.8	5 239.3
Livestock and animal products	3 461.5	1 553.2	229.4	120.7	1 069.4	7.8	1 831.4	2 940.6	1 057.6	8 897.2	1 417.9	482.2	413.6	0.6	14.9	1.7	8.9	109.3	155.2	23 773.2	143.2
Forestry	544.1	134.2	120.6	27.8	1 502.7	1.9	167.0	2 060.6	437.2	1 510.0	1 655.0	42.3	113.3	0.3	24.9	4.2	1.6	1 299.0	1 000.2	10 646.9	1 332.0
Fishing	461.1	597.9	972.8	98.7	1 479.5	22.2	768.9	587.7	562.9	3 134.2	320.3	56.7	182.2	0.4	4.0	0.4	1.0	89.2	282.5	9 622.7	117.3
Coal, oil, gas and minerals	13 178.7	4 623.8	22 679.6	187.7	18 534.0	0.1	19 568.8	6 539.8	38 234.2	22 179.0	39 728.3	96 400.6	26 178.3	13.3	0.7	15.8	39.0	18 095.9	3 035.5	329 233.3	18 164.9
Meat and meat products	4 659.2	1 284.2	193.2	72.9	1 505.8	8.6	2 000.7	7 814.6	3 831.2	24 272.2	2 269.4	133.6	207.6	0.2	6.6	0.9	0.3	8.7	133.6	48 403.3	25.3
Vegetable oils and fats	93.9	540.6	182.7	55.9	7 697.3	0.2	783.9	3 321.2	7 485.2	9 846.5	678.9	371.4	367.4	0.6	5.8	0.4	0.0	244.6	266.0	31 942.6	251.6
Dairy Products	3 855.0	47.3	522.8	36.9	250.5	0.0	290.1	712.5	540.1	20 847.7	1 120.5	92.5	57.5	0.1	0.1	0.1	0.1	4.4	76.0	28 454.2	4.7
Processed rice	123.8	307.1	1.6	45.4	2 710.4	1.7	1.4	597.9	482.8	716.7	45.5	18.5	58.9	0.7	0.9	0.2	0.3	24.0	18.9	5 156.5	27.7
Other food products	2 417.9	4 355.8	5 438.0	2 014.1	15 316.2	366.6	3 854.0	11 011.5	12 714.2	49 052.8	4 975.9	1 859.7	1 994.9	0.7	93.1	2.6	33.5	2 081.4	1 457.3	119 040.3	2 578.0
Beverages and tobacco	920.0	1 064.2	837.6	573.2	1 042.3	1.8	1 102.2	7 017.4	2 842.5	31 827.0	1 820.6	348.0	316.1	1.8	18.3	0.9	1.2	26.9	274.1	50 036.0	50.9
Textiles	2 176.1	20 660.9	5 867.1	7 582.2	47 211.8	1 011.8	2 118.4	11 485.6	8 192.7	68 426.8	5 452.8	6 807.9	2 564.7	26.1	17.2	37.4	0.8	300.6	1 485.9	191 426.9	1 393.9
Wearing apparel	402.3	26 671.3	7 741.0	1 053.6	23 885.5	2 512.2	1 209.0	6 846.8	11 047.2	37 103.0	7 971.3	5 917.8	5 498.1	25.7	28.0	2.0	0.4	199.2	3 288.0	141 402.2	2 767.5
Leather products	602.7	21 241.2	439.2	315.5	14 258.7	234.4	268.2	2 280.5	5 154.8	26 646.3	2 893.5	392.2	905.8	0.2	3.7	0.7	1.4	274.9	746.6	76 660.3	515.2
Manufactures	28 396.1	131 688.9	111 921.5	414 988.3	483 842.1	372.2	159 748.2	550 019.8	152 644.2	1 579 248.9	129 698.4	59 745.7	31 901.8	9.3	86.7	669.2	24.3	6 323.8	11 226.0	3 852 555.3	7 485.4
Services	20 449.4	20 493.7	51 084.7	63 485.1	114 482.9	768.3	29 290.6	210 357.6	45 761.6	439 611.8	46 556.2	40 817.1	21 562.6	87.1	336.9	263.5	132.4	5 757.8	14 043.2	1 125 342.4	7 346.0
Total	87 510.1	239 277.1	208 478.9	490 910.1	744 914.0	5 438.4	229 950.6	853 273.5	321 944.0	2 362 725.7	252 467.7	218 123.4	96 474.4	632.5	1 127.5	1 076.4	723.6	41 099.8	38 830.3	6 194 977.9	50 098.2

Source: GTAP database.

Annex tables III.B
EU EBA

Annex table III.B.1. EU EBA: Changes in sectoral exports

($ Millions)

Sectors	Australia-New Zealand	China	Rest of developed	Japan	Rest of Asia	Bangladesh	Canada	United States	Latin America and Caribbean	European Union	Eastern Europe and FSU	Middle East	Rest of Africa	Malawi	United Republic of Tanzania	Zambia	Uganda	Rest of Sub-Saharan Africa	19 ROW LDCs
Paddy rice	- 0.13	- 0.88	0.00	0.01	- 5.82	0.01	0.00	- 2.08	- 1.41	- 4.79	- 0.01	- 0.02	0.00	0.02	1.88	0.01	0.00	7.49	- 0.06	9.41
Cereals	0.69	- 0.17	- 0.01	0.00	0.03	0.00	- 0.42	0.11	0.30	- 9.93	- 0.45	- 0.17	4.09	0.46	10.61	0.51	0.26	11.04	0.10	22.87
Vegetable, fruits, nuts	0.70	0.95	- 0.02	0.04	0.18	0.48	- 0.15	- 0.45	- 4.17	- 19.03	- 0.73	- 3.14	- 1.53	- 0.40	- 8.56	- 0.44	0.46	41.26	0.61	32.80
Oil seeds	0.07	0.14	0.00	0.00	0.22	0.00	0.63	1.94	1.13	0.98	0.24	0.00	0.15	- 0.42	- 1.42	- 0.50	- 0.01	- 3.79	0.12	- 6.15
Sugar	- 1.14	- 1.51	- 0.26	- 0.10	- 19.76	0.77	- 1.44	- 1.89	- 62.48	- 217.22	- 10.07	- 0.64	- 80.57	97.46	166.04	134.11	1.16	386.03	- 15.27	785.57
Plant-based fibers	3.70	0.01	0.09	0.02	2.91	0.32	0.00	10.66	2.13	2.70	6.83	2.87	2.08	- 0.48	- 10.09	- 1.49	0.00	- 19.69	0.30	- 31.42
Other crops	1.21	5.18	0.74	0.47	17.21	0.03	1.62	10.00	44.24	45.67	2.12	4.05	4.99	- 42.66	- 25.44	- 5.53	- 1.33	- 71.74	2.28	- 146.67
Livestock and animal products	- 1.94	- 0.67	- 0.32	0.00	- 0.15	0.13	- 0.09	- 0.35	- 0.29	1.25	- 1.43	- 0.56	- 0.15	- 0.01	- 1.41	- 0.31	0.47	7.34	- 0.02	6.20
Forestry	0.65	0.24	0.35	0.09	3.28	0.00	0.43	2.62	1.24	4.50	3.59	0.13	0.29	- 0.06	- 4.17	- 0.62	- 0.01	- 22.19	1.89	- 27.05
Fishing	- 0.01	- 0.04	- 0.21	0.00	- 0.06	- 0.21	0.02	- 0.12	0.06	- 1.32	0.04	- 0.03	- 0.02	- 0.07	- 0.80	- 0.06	- 0.01	- 2.76	- 0.04	- 3.92
Coal, oil, gas and minerals	3.03	1.62	4.54	0.06	3.71	0.00	5.09	1.90	11.85	6.65	7.95	11.57	4.97	- 0.27	- 0.09	- 0.18	0.07	- 38.36	0.76	- 38.83
Meat and meat products	- 1.30	- 0.31	- 0.10	- 0.01	- 0.36	0.00	- 0.22	- 1.09	- 1.00	1.21	- 1.02	- 0.04	- 0.07	0.00	0.63	- 0.01	0.31	3.52	- 0.01	4.45
Vegetable oils and fats	- 0.02	- 0.12	0.01	- 0.05	2.00	0.00	- 0.09	- 0.13	- 0.60	4.33	- 0.24	0.00	- 0.12	- 0.07	- 0.54	- 0.07	0.00	- 3.02	- 0.04	- 3.70
Dairy products	- 1.58	- 0.03	- 0.55	- 0.01	- 0.09	0.04	- 0.16	- 0.26	- 0.16	0.63	- 0.73	- 0.04	0.01	0.18	0.11	0.03	0.12	1.72	- 0.03	2.20
Processed rice	- 0.48	- 1.70	- 0.02	- 1.18	- 9.49	6.39	0.00	- 3.83	- 5.72	- 43.01	- 0.96	- 0.14	0.03	- 0.04	3.78	0.31	0.40	103.10	- 0.39	113.94
Other food products	- 0.58	- 1.26	- 8.65	- 0.99	- 6.74	10.94	- 1.00	- 4.29	- 6.48	- 18.15	- 4.38	- 2.29	- 1.12	- 0.07	- 5.95	- 0.26	1.44	96.64	- 1.87	102.75
Beverages and tobacco	- 1.13	- 0.82	- 1.07	- 0.39	- 0.98	- 0.01	- 0.85	- 5.19	- 2.19	27.05	- 1.57	- 0.19	0.45	- 0.30	- 2.62	- 0.16	0.02	0.97	- 0.17	- 2.10
Textiles	0.13	2.27	- 1.11	1.06	6.14	- 2.03	0.02	1.03	0.49	19.84	0.60	- 0.61	1.36	- 3.44	- 1.60	- 3.65	- 0.01	- 5.37	0.40	- 16.11
Wearing apparel	0.04	- 0.27	- 5.26	0.44	5.73	- 10.30	0.21	0.14	4.20	17.81	0.96	- 1.12	1.43	- 7.61	- 5.95	- 0.39	- 0.01	- 7.61	1.35	- 31.86
Leather products	- 0.07	- 0.21	- 0.32	0.03	- 0.43	- 1.67	- 0.01	0.11	0.93	14.12	0.35	0.13	0.87	- 0.05	- 0.87	- 0.13	- 0.02	- 11.57	0.26	- 14.31
Manufactures	- 2.27	- 3.95	- 58.20	4.15	- 19.35	- 1.18	- 12.78	- 33.00	6.11	347.43	- 10.38	- 3.58	46.26	- 1.74	- 10.11	- 68.63	- 0.17	- 126.35	2.25	- 208.18
Services	1.43	1.84	58.24	10.79	11.45	- 1.81	3.22	27.35	9.61	127.49	6.98	- 1.22	3.88	- 9.64	- 30.83	- 18.51	- 0.70	- 84.29	2.81	- 145.77

Annex table III.B.2. EU EBA: Changes in sectoral exports

(per cent)

Sectors	Australia-New Zealand	China	Rest of developed	Japan	Rest of Asia	Bangladesh	Canada	United States	Latin America and Caribbean	European Union	Eastern Europe and FSU	Middle East	Rest of Africa	Malawi	United Republic of Tanzania	Zambia	Uganda	Rest of Sub-Saharan Africa	19 ROW	LDCs
Paddy rice	- 0.48	- 0.90	- 0.64	1.85	- 1.50	22.75	- 0.47	- 0.63	- 0.75	- 2.59	- 0.23	- 1.03	- 0.04	28.32	222.38	133.11	254.57	347.92	- 1.08	303.78
Cereals	0.03	- 0.02	- 0.10	0.41	0.03	35.12	- 0.01	0.00	0.01	- 0.13	- 0.04	- 0.07	1.05	48.66	92.39	48.29	16.98	42.11	0.16	55.51
Vegetable, fruits, nuts	0.06	0.07	- 0.11	0.04	0.01	7.65	- 0.02	- 0.01	- 0.05	- 0.11	- 0.07	- 0.12	- 0.10	- 9.26	- 10.79	- 5.75	4.25	5.71	0.13	3.94
Oil seeds	0.04	0.05	0.04	0.03	0.06	- 0.36	0.05	0.03	0.04	0.06	0.03	0.00	0.19	- 9.70	- 11.94	- 19.27	- 0.64	- 2.32	0.10	- 3.33
Sugar	- 0.18	- 1.05	- 0.81	- 1.61	- 1.30	284.11	- 1.50	- 2.39	- 1.57	- 6.69	- 1.78	- 1.29	- 9.51	499.60	1 230.99	545.95	429.47	433.24	- 9.38	533.66
Plant-based fibers	0.39	0.21	0.39	0.42	0.50	0.36	0.06	0.38	0.34	0.52	0.33	0.56	0.67	- 8.08	- 7.55	- 14.38	0.01	- 1.66	0.75	- 2.17
Other crops	0.39	0.42	0.47	0.33	0.35	0.10	0.29	0.33	0.38	0.52	0.54	0.37	0.50	- 9.92	- 10.83	- 18.39	- 0.30	- 1.76	0.46	- 2.80
Livestock and animal products	- 0.06	- 0.04	- 0.14	0.00	- 0.01	1.66	- 0.01	- 0.01	- 0.03	0.01	- 0.10	- 0.12	- 0.04	- 2.42	- 9.47	- 18.58	5.27	6.72	- 0.01	4.33
Forestry	0.12	0.18	0.29	0.31	0.22	- 0.15	0.26	0.13	0.28	0.30	0.22	0.30	0.25	- 17.14	- 16.73	- 14.79	- 0.92	- 1.71	0.19	- 2.03
Fishing	0.00	- 0.01	- 0.02	0.00	0.00	- 0.96	0.00	- 0.02	0.01	- 0.04	0.01	- 0.06	- 0.01	- 17.24	- 19.75	- 13.57	- 1.27	- 3.10	- 0.01	- 3.34
Coal, oil, gas and minerals	0.02	0.04	0.02	0.03	0.02	0.38	0.03	0.03	0.03	0.03	0.02	0.01	0.02	- 2.01	- 11.70	- 1.14	0.18	- 0.21	0.03	- 0.21
Meat and meat products	- 0.03	- 0.02	- 0.05	- 0.02	- 0.02	- 0.05	- 0.01	- 0.01	- 0.03	0.01	- 0.05	- 0.03	- 0.03	0.06	9.62	- 1.34	88.75	40.38	- 0.01	17.60
Vegetable oils and fats	- 0.02	- 0.02	0.00	- 0.09	0.03	0.02	- 0.01	0.00	- 0.01	0.04	- 0.04	0.00	- 0.03	- 12.80	- 9.19	- 16.03	0.51	- 1.24	- 0.02	- 1.47
Dairy products	- 0.04	- 0.06	- 0.11	- 0.04	- 0.04	94.10	- 0.06	- 0.04	- 0.03	0.00	- 0.07	- 0.04	0.02	131.86	190.37	51.10	211.52	39.23	- 0.04	46.45
Processed rice	- 0.39	- 0.55	- 1.47	- 2.61	- 0.35	372.45	- 0.30	- 0.64	- 1.18	- 6.00	- 2.11	- 0.75	0.06	- 6.06	434.82	201.55	156.04	428.79	- 2.04	411.02
Other food products	- 0.02	- 0.03	- 0.16	- 0.05	- 0.04	2.99	- 0.03	- 0.04	- 0.05	- 0.04	- 0.09	- 0.12	- 0.06	- 9.11	- 6.39	- 10.03	4.30	4.64	- 0.13	3.99
Beverages and tobacco	- 0.12	- 0.08	- 0.13	- 0.07	- 0.09	- 0.46	- 0.08	- 0.07	- 0.08	0.09	- 0.09	- 0.06	0.14	- 16.91	- 14.29	- 18.35	1.47	3.61	- 0.06	- 4.14
Textiles	0.01	0.01	- 0.02	0.01	0.01	- 0.20	0.00	0.01	0.01	0.03	0.01	- 0.01	0.05	- 13.19	- 9.31	- 9.77	- 0.69	- 1.79	0.03	- 1.16
Wearing apparel	0.01	0.00	- 0.07	0.04	0.02	- 0.41	0.02	0.00	0.04	0.05	0.01	- 0.02	0.03	- 29.60	- 21.23	- 19.33	- 1.96	- 3.82	0.04	- 1.15
Leather products	- 0.01	0.00	- 0.07	0.01	0.00	- 0.71	0.00	0.01	0.02	0.05	0.01	0.03	0.10	- 29.86	- 23.38	- 17.89	- 1.77	- 4.21	0.04	- 2.78
Manufactures	- 0.01	0.00	- 0.05	0.00	0.00	- 0.32	- 0.01	- 0.01	0.00	0.02	- 0.01	- 0.01	0.15	- 18.69	- 11.67	- 10.26	- 0.70	- 2.00	0.02	- 2.78
Services	0.01	0.01	0.11	0.02	0.01	- 0.24	0.01	0.01	0.02	0.03	0.02	0.00	0.02	- 11.06	- 9.15	- 7.03	- 0.53	- 1.46	0.02	- 1.98

Annex table III.B.3. EU EBA: Changes in bilateral exports

($ Millions)

Exporter/Importer	Australia-New Zealand	China	Rest of developed	Japan	Rest of Asia	Bangladesh	Canada	United States	Latin America and Caribbean	European Union	Eastern Europe and FSU	Middle East	Rest of Africa	Malawi	United Republic of Tanzania	Zambia	Uganda	Rest of Sub-Saharan Africa	19 ROW	Total exports
Australia-New Zealand	-0.6	0.2	-0.3	0.8	3.9	0.6	-0.2	-0.3	- 0.2	-6.6	-0.3	-0.3	-0.7	0.3	2.6	0.2	0.1	2.5	-0.6	0.9
China	-0.3	0	-1.4	-0.8	1.1	0.0	-0.4	-5.3	- 1.5	-15.7	-1.0	-0.6	1.4	0.7	5.9	0.9	0.1	17.7	-0.7	-0.2
Rest of Developed	-0.8	-3.9	-1.5	-3.3	-6.5	0.0	-0.7	-10.8	- 2.5	-52.5	-2.9	-2.5	-0.7	0.4	2.3	0.3	0.1	86.4	-0.9	-0.1
Japan	-0.4	0.9	0.6	0	4.7	0.4	-0.2	-3.3	- 2.0	-16.6	-0.7	0.1	-0.1	4.3	7.3	2.1	0.4	17.4	-0.6	14.2
Rest of Asia	-1.0	-1.7	-1.8	0	0	1.7	-0.7	-9.4	- 2.8	-65.8	-0.3	-0.6	1.9	2.9	17.7	2.8	0.8	42.8	-1.7	-15.2
Bangladesh	-0.1	-0.2	-0.7	-0.6	-0.6	0.0	-0.3	-7.3	- 0.2	12.2	-0.2	-0.5	-0.1	0	0	0.1	0	0.5	-0.1	1.8
Canada	0.0	-0.1	0.1	0.9	0.1	0.3	0	-7.2	- 0.7	-6.8	-0.1	0.1	-0.9	0.9	1.7	0.4	0.1	4.7	0	-6.8
United States	-0.8	1.2	1.1	4.0	7.7	1.0	-6.3	0	- 14.1	-54	-2.5	1.4	-1.9	4.3	14.6	3.1	0.5	43.0	-0.8	1.1
Latin America and Carribean	0.3	0.4	1.1	5.0	2.8	0.3	1.2	26.3	0.5	-60.3	-0.1	-1	-0.1	2.4	4.0	0.5	0.1	13.9	-0.1	-2.5
European Union	6.1	9.6	35.5	26.6	42.9	1.6	7.9	62	14.9	-210.6	22.7	31.5	18.4	13.4	43.7	7.4	2.7	167.5	3.7	307.5
Eastern Europe and FSU	0.0	1.0	0.6	1.1	2.1	0.3	0	1.0	0.4	-13.9	-5.6	0.8	0.2	0.5	2.7	0.2	0.1	5.2	-0.7	-4.1
Middle East	-0.3	-0.4	-0.5	-1.9	1.0	0.2	-0.2	1.6	- 0.5	-7.5	-2.0	-1.5	0.4	0.4	8.9	1.2	0.1	3.7	-0.3	2.7
Rest of Africa	0.1	0.1	0.5	1.0	1.8	0.1	0.1	2.3	0.2	-79.2	0.4	0.3	1.6	23.5	9.1	14.1	0.2	11.2	-0.1	-12.6
Malawi	-0.6	-0.4	-0.9	-5.4	-2.5	-0.2	-0.5	-13	- 2.1	75.2	-4.3	-1.3	-14.1	0	-0.1	-0.3	-0.1	-0.1	-0.7	28.8
United Republic of Tanzania	-1.2	-2.5	-3.7	-13.4	-22.6	-0.4	-1.4	-13.1	- 2.4	145.6	-3.2	-2.4	-3.4	0	0	0	-0.1	-3.8	-0.4	71.5
Zambia	-0.4	-4.3	-0.8	-16.4	-27.9	0.0	-1.7	-10.6	- 4.5	107.1	-1.1	-0.5	-5.7	0	-0.3	0	0	-0.4	-0.3	32.0
Uganda	-0.1	0	-0.2	-0.2	-0.1	0.0	-0.1	-0.4	- 0.1	3.0	-0.1	-0.1	-0.1	0	0.8	-0.2	0	0.0	0	2.2
Rest of Sub-Saharan Africa	-2.2	-10.5	-16.2	-23.8	-38.5	-0.7	-6.3	-67.4	- 12.5	463.3	-12.8	-10.6	-11.6	0.1	4.8	0	-1.7	-1.2	-2.4	250.0
19 ROW	0.4	1.1	0.3	1.2	1.9	0.1	0.1	1.7	0.1	-15.9	0.3	0.1	0.1	0.2	1.2	0	0	2.1	-0.1	-4.9
Total imports	-2.0	-9.4	11.4	-25	-29	5.4	-9.5	-53.4	- 29.9	200.9	-13.9	12.2	-15.3	54.5	126.9	32.5	3.6	413.2	-6.8	666.2
LDC exports	-4.6	-17.9	-22.5	-59.8	-92.2	-1.3	-10.3	-111.8	- 21.8	806.4	-21.7	-15.4	-35	0.1	5.2	-0.4	-1.9	-5	-3.9	386.3

Annex table III.B.4. EU EBA: Changes value added

(per cent)

Sectors	Australia-New Zealand	China	Rest of developed	Japan	Rest of Asia	Bangladesh	Canada	United States	Latin America and Caribbean	European Union	Eastern Europe and FSU	Middle East	Rest of Africa	Malawi	United Republic of Tanzania	Zambia	Uganda	Rest of Sub-Saharan Africa	19 ROW
Paddy rice	- 0.17	- 0.01	- 0.02	0.00	- 0.02	0.08	- 0.11	- 0.17	-0.04	- 2.44	- 0.02	- 0.01	0.00	0.14	2.16	0.22	0.39	0.89	- 0.01
Cereals	0.01	0.00	- 0.05	0.00	0.00	0.39	- 0.01	0.00	0.00	- 0.04	- 0.01	- 0.01	- 0.03	0.36	0.93	0.32	0.15	0.18	0.00
Vegetable, fruits, nuts	0.01	0.00	- 0.01	0.00	0.01	0.00	- 0.01	0.00	-0.01	- 0.04	- 0.01	- 0.02	- 0.04	0.01	- 2.45	- 1.26	0.03	0.60	0.01
Oil seeds	0.01	0.00	- 0.03	0.04	0.00	- 0.13	0.02	0.01	0.01	0.03	0.01	0.01	0.05	- 4.29	- 1.56	1.10	- 0.03	- 0.18	- 0.01
Sugar	- 0.05	- 0.04	- 0.28	- 0.01	- 0.06	0.11	- 0.53	- 0.02	-0.26	- 2.94	- 0.28	- 0.08	- 1.13	366.44	38.54	249.65	1.38	13.52	- 0.43
Plant-based fibers	0.27	0.03	0.13	0.40	0.06	- 0.15	0.05	0.12	0.10	0.52	0.23	0.27	0.14	- 9.95	- 9.78	- 8.46	- 0.19	- 1.29	0.03
Other crops	0.06	0.04	0.09	0.03	0.08	0.02	0.21	0.09	0.12	0.21	0.17	0.08	0.27	- 9.46	- 3.55	- 0.71	- 0.33	- 1.01	0.05
Livestock and animal products	- 0.02	0.00	- 0.01	0.00	0.00	- 0.01	0.00	0.00	0.00	0.01	- 0.01	- 0.01	- 0.03	3.76	0.09	0.53	0.12	0.25	0.00
Forestry	0.02	0.03	0.04	0.02	0.02	0.01	0.00	0.01	0.01	0.06	0.05	0.02	0.04	- 1.85	0.11	- 0.27	- 0.01	- 0.38	0.05
Fishing	0.00	0.00	- 0.01	0.00	0.00	0.07	0.00	0.00	0.00	0.00	- 0.01	- 0.01	- 0.01	0.36	0.78	0.75	0.01	0.11	0.00
Coal, oil, gas and minerals	0.01	0.00	0.00	0.01	0.01	- 0.04	0.01	0.01	0.01	0.01	0.01	0.00	0.01	- 3.23	- 2.69	- 6.48	- 0.04	- 0.31	0.01
Meat and meat products	- 0.01	0.00	0.00	0.00	0.00	- 0.05	0.00	0.00	0.00	0.01	- 0.01	0.00	0.00	- 0.03	0.66	- 0.11	0.60	0.08	0.00
Vegetable oils and fats	- 0.01	- 0.01	- 0.02	- 0.01	0.00	- 0.05	- 0.01	0.00	0.00	0.01	- 0.02	0.00	- 0.01	- 0.11	- 6.09	- 0.05	- 0.21	- 0.34	0.00
Dairy products	- 0.02	- 0.01	- 0.03	0.00	- 0.01	- 0.04	- 0.01	0.00	0.00	0.01	- 0.01	- 0.01	- 0.01	0.73	- 0.19	- 0.29	0.69	- 0.21	0.00
Processed rice	- 0.13	- 0.01	- 0.07	0.00	- 0.02	0.09	- 0.07	- 0.19	-0.06	- 3.26	- 0.02	- 0.02	0.01	- 0.91	5.75	0.14	1.22	0.95	- 0.01
Other food products	- 0.01	- 0.01	- 0.07	0.00	- 0.01	0.63	- 0.01	0.00	-0.01	- 0.01	- 0.02	- 0.02	- 0.03	0.35	- 0.44	0.07	1.54	0.72	- 0.01
Beverages and tobacco	- 0.02	- 0.01	- 0.04	0.00	- 0.02	- 0.02	- 0.02	- 0.01	-0.01	0.04	- 0.01	- 0.01	0.00	0.35	- 0.34	- 0.03	- 0.01	- 0.09	- 0.01
Textiles	0.00	0.00	- 0.02	0.01	0.01	- 0.25	0.00	0.00	0.00	0.03	0.00	- 0.01	0.04	- 10.29	- 7.45	- 4.98	0.08	- 0.47	0.02
Wearing apparel	0.00	0.00	- 0.06	0.00	0.01	- 0.40	0.01	0.01	0.01	0.03	0.01	- 0.01	0.04	- 13.88	- 4.26	- 1.06	- 0.43	- 0.96	0.02
Leather products	- 0.01	0.00	- 0.05	0.00	0.00	- 0.62	0.00	0.00	0.01	0.05	0.01	0.00	0.02	- 7.85	- 7.95	- 5.12	- 0.69	- 3.06	0.01
Manufactures	0.00	0.00	- 0.04	0.00	0.00	- 0.12	0.00	0.00	0.00	0.02	0.00	- 0.01	0.04	- 4.06	- 1.47	- 8.13	- 0.26	- 0.96	0.00
Services	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.03	- 1.51	- 0.02	- 0.07	0.00

Annex tables III.C
Quad EBA

Annex table III.C.1. Quad EBA: Changes in sectoral exports

($ Millions)

Sectors	Australia-New Zealand	China	Rest of developed	Japan	Rest of Asia	Bangladesh	Canada	United States	Latin America and Caribbean	European Union	Eastern Europe and FSU	Middle East	Rest of Africa	Malawi	United Republic of Tanzania	Zambia	Uganda	Rest of Sub-Saharan Africa	19 ROW	LDCs
Paddy rice	- 2.02	- 3.80	0.00	0.08	- 4.77	0.00	- 0.01	- 4.25	- 1.58	- 4.45	- 0.03	- 0.05	- 0.02	0.70	39.07	0.56	0.02	6.56	- 0.15	46.91
Cereals	3.73	- 1.92	- 0.01	0.04	0.96	0.00	8.57	12.83	4.66	7.23	- 0.88	- 0.23	14.04	0.41	8.39	0.66	0.34	11.88	0.38	21.68
Vegetable, fruits, nuts	7.49	- 0.23	- 0.02	1.59	5.95	- 0.43	1.46	1.82	1.06	11.35	- 0.48	2.52	- 0.14	- 0.77	- 19.28	- 0.37	2.56	2.77	1.18	- 15.52
Oil seeds	- 9.08	- 10.22	- 0.01	0.05	- 0.75	0.00	- 49.61	- 98.60	- 25.59	- 0.92	- 0.21	- 0.21	- 0.86	- 0.81	58.00	- 0.46	12.31	271.27	- 1.43	340.31
Sugar	- 2.42	- 1.44	- 0.18	- 0.06	- 18.30	0.99	- 1.84	- 1.72	- 44.46	- 193.92	- 9.97	- 0.30	- 74.84	90.91	148.82	134.34	2.06	387.19	- 14.23	764.30
Plant-based fibers	17.91	0.03	0.40	0.22	12.63	- 13.92	0.00	52.96	9.14	9.01	31.31	11.95	7.76	- 0.95	- 21.55	- 1.41	- 0.49	- 84.80	1.16	- 123.12
Other crops	- 0.80	2.21	1.39	2.92	8.85	- 6.30	- 6.09	22.36	- 7.26	124.37	7.14	0.92	11.46	0.29	- 29.86	- 4.47	1.12	65.19	2.62	25.97
Livestock and animal products	1.07	- 1.07	- 0.32	1.86	- 1.76	- 1.43	2.66	1.41	0.00	1.07	- 2.41	- 0.44	- 0.65	- 0.11	- 3.58	0.45	- 0.03	4.32	- 0.09	- 0.38
Forestry	2.68	0.90	1.39	0.36	13.55	- 0.69	1.44	11.00	5.06	16.94	13.84	0.51	0.98	- 0.10	- 8.41	- 0.64	- 0.15	- 94.03	7.96	- 104.03
Fishing	1.04	1.45	0.78	0.45	4.23	- 8.35	0.67	0.76	0.80	4.07	0.49	0.14	0.31	- 0.12	- 1.31	- 0.07	- 0.10	- 10.79	0.42	- 20.74
Coal, oil, gas and minerals	13.18	7.17	13.61	0.29	15.75	- 0.01	22.90	6.80	50.47	18.85	23.84	46.27	15.45	- 0.50	- 0.18	- 0.21	- 0.31	- 172.09	2.58	- 173.29
Meat and meat products	- 4.80	- 1.91	- 0.21	0.52	- 3.70	- 0.22	0.06	- 4.92	1.00	- 2.67	- 2.54	- 0.23	- 0.25	0.11	4.16	0.47	0.33	6.02	- 0.07	10.88
Vegetable oils and fats	- 0.32	- 1.12	0.12	3.37	3.08	- 0.02	0.54	- 1.10	9.21	8.27	- 0.83	- 0.16	- 0.17	- 0.11	- 1.19	- 0.06	0.00	- 20.80	0.04	- 22.17
Dairy products	- 20.47	- 0.07	- 2.07	0.42	- 0.13	0.61	- 0.72	- 7.10	- 0.43	- 3.34	- 3.76	- 0.18	- 0.09	4.70	1.76	0.79	1.95	158.91	- 0.14	168.72
Processed rice	- 23.72	- 6.48	- 0.04	0.27	- 22.79	40.49	- 0.01	- 44.63	- 5.97	- 39.27	- 3.34	- 0.43	0.19	0.35	27.12	4.18	3.16	930.69	- 1.57	1 005.99
Other food products	- 14.80	- 41.90	- 18.54	18.85	- 116.10	50.30	- 11.52	- 41.51	- 29.12	54.94	- 20.95	- 0.41	- 5.41	- 0.02	7.41	0.53	2.88	448.43	- 3.53	509.54
Beverages and tobacco	- 0.58	0.03	- 1.99	3.54	- 0.65	- 0.59	- 0.77	0.98	0.45	26.10	- 2.53	- 0.14	1.24	- 0.28	- 1.33	0.12	0.39	5.79	- 0.18	4.11
Textiles	2.39	94.42	5.40	15.24	149.19	- 94.00	- 3.62	14.01	- 6.47	101.27	8.89	6.60	5.26	- 5.88	- 3.18	- 3.79	- 0.04	- 15.76	3.82	- 122.65
Wearing apparel	- 0.19	- 67.21	- 76.48	3.45	- 150.72	807.21	- 18.50	16.50	- 165.60	74.95	28.62	- 11.78	4.29	- 11.53	2.85	- 0.10	- 0.01	13.68	- 8.78	812.11
Leather products	1.37	9.56	- 0.21	2.43	17.40	- 84.06	0.27	7.25	12.84	45.57	5.03	0.85	1.56	- 0.06	- 1.22	- 0.06	- 0.10	- 41.80	1.48	- 127.31
Manufactures	0.28	- 21.07	- 220.49	614.18	- 72.58	- 98.58	- 36.74	236.51	56.48	- 142.13	- 42.80	- 32.86	43.07	- 2.77	- 20.15	- 74.37	- 2.13	- 531.90	3.26	- 729.89
Services	16.15	9.84	241.63	106.65	48.08	- 169.99	28.12	267.15	64.07	149.47	12.10	- 2.86	- 5.61	- 15.80	- 62.56	- 19.95	- 6.11	- 349.27	3.51	- 623.68

Annex table III.C.2. Quad EBA: Changes in sectoral exports

(per cent)

Sectors	Australia-New Zealand	China	Rest of developed	Japan	Rest of Asia	Bangladesh	Canada	United States	Latin America and Caribbean	European Union	Eastern Europe and FSU	Middle East	Rest of Africa	Malawi	United Republic of Tanzania	Zambia	Uganda	Rest of Sub-Saharan Africa	19 ROW	LDCs
Paddy rice	- 7.54	- 3.88	- 0.81	13.12	- 1.23	- 4.57	- 0.71	- 1.28	- 0.84	- 2.41	- 0.58	- 2.47	- 0.37	1 226.88	4 616.16	5 446.26	5 474.65	304.52	- 2.62	1 514.27
Cereals	0.15	- 0.20	- 0.18	4.32	1.04	15.12	0.20	0.12	0.14	0.09	- 0.09	- 0.10	3.60	43.29	73.09	62.85	22.75	45.34	0.59	52.64
Vegetable, fruits, nuts	0.62	- 0.02	- 0.10	1.65	0.26	- 6.83	0.20	0.04	0.01	0.07	- 0.05	0.09	- 0.01	- 17.69	- 24.30	- 4.82	23.60	0.38	0.26	- 1.87
Oil seeds	- 5.17	- 3.48	- 0.11	2.22	- 0.21	- 17.68	- 3.70	- 1.27	- 0.86	- 0.06	- 0.03	- 0.29	- 1.12	- 18.70	487.03	- 17.69	531.22	166.10	- 1.17	184.44
Sugar	- 0.38	- 1.00	- 0.57	- 0.96	- 1.21	363.19	- 1.92	- 2.18	- 1.12	- 5.97	- 1.76	- 0.62	- 8.84	465.99	1 103.28	546.88	763.72	434.55	- 8.74	519.21
Plant-based fibers	1.87	0.69	1.68	4.59	2.17	- 15.51	0.04	1.89	1.47	1.74	1.52	2.35	2.50	- 16.05	- 16.12	- 13.64	- 2.63	- 7.13	2.93	- 8.50
Other crops	- 0.26	0.18	0.88	2.07	0.18	- 19.52	- 1.10	0.74	- 0.06	1.43	1.81	0.09	1.14	0.07	- 12.71	- 14.86	0.25	1.60	0.53	0.50
Livestock and animal products	0.03	- 0.07	- 0.14	1.54	- 0.17	- 18.24	0.15	0.05	0.00	0.01	- 0.17	- 0.09	- 0.16	- 17.77	- 24.04	26.96	- 0.36	3.95	- 0.06	- 0.27
Forestry	0.49	0.67	1.15	1.30	0.90	- 35.56	0.86	0.53	1.16	1.12	0.84	1.20	0.87	- 32.48	- 33.79	- 15.25	- 9.23	- 7.24	0.80	- 7.81
Fishing	0.23	0.24	0.08	0.45	0.29	- 37.62	0.09	0.13	0.14	0.13	0.15	0.24	0.17	- 28.96	- 32.55	- 16.40	- 9.85	- 12.09	0.15	- 17.68
Coal, oil, gas and minerals	0.10	0.16	0.06	0.15	0.09	- 20.61	0.12	0.10	0.13	0.09	0.06	0.05	0.06	- 3.72	- 23.62	- 1.30	- 0.79	- 0.95	0.09	- 0.95
Meat and meat products	- 0.10	- 0.15	- 0.11	0.71	- 0.25	- 2.57	0.00	- 0.06	0.03	- 0.01	- 0.11	- 0.17	- 0.12	62.93	63.25	54.37	95.15	69.12	- 0.06	43.06
Vegetable oils and fats	- 0.34	- 0.21	0.06	6.03	0.04	- 12.33	0.07	- 0.03	0.12	0.08	- 0.12	- 0.04	- 0.05	- 18.95	- 20.29	- 15.23	- 0.77	- 8.50	0.01	- 8.81
Dairy products	- 0.53	- 0.15	- 0.40	1.14	- 0.05	1 305.12	- 0.25	- 1.00	- 0.08	- 0.02	- 0.34	- 0.19	- 0.15	3 418.03	3 166.61	1 547.21	3 432.00	3 630.06	- 0.18	3 570.45
Processed rice	- 19.16	- 2.11	- 2.69	0.59	- 0.84	2 362.00	- 0.44	- 7.46	- 1.24	- 5.48	- 7.34	- 2.32	0.33	51.32	3 118.59	2 702.97	1 238.23	3 870.53	- 8.27	3 629.01
Other food products	- 0.61	- 0.96	- 0.34	0.94	- 0.76	13.72	- 0.30	- 0.38	- 0.23	0.11	- 0.42	- 0.02	- 0.27	- 2.33	7.96	20.13	8.60	21.55	- 0.24	19.76
Beverages and tobacco	- 0.06	0.00	- 0.24	0.62	- 0.06	- 32.47	- 0.07	0.01	0.02	0.08	- 0.14	- 0.04	0.39	- 15.46	- 7.26	14.08	32.99	21.56	- 0.07	8.09
Textiles	0.11	0.46	0.09	0.20	0.32	- 9.29	- 0.17	0.12	- 0.08	0.15	0.16	0.10	0.21	- 22.57	- 18.45	- 10.13	- 5.65	- 5.24	0.26	- 8.80
Wearing apparel	- 0.05	- 0.25	- 0.99	0.33	- 0.63	32.13	- 1.53	0.24	- 1.50	0.20	0.36	- 0.20	0.08	- 44.83	10.18	- 4.77	- 2.79	6.87	- 0.27	29.34
Leather products	0.23	0.05	- 0.05	0.77	0.12	- 35.86	0.10	0.32	0.25	0.17	0.17	0.22	0.17	- 41.03	- 32.75	- 8.37	- 7.58	- 15.21	0.20	- 24.71
Manufactures	0.00	- 0.02	- 0.20	0.15	- 0.02	- 26.49	- 0.02	0.04	0.04	- 0.01	- 0.03	- 0.06	0.14	- 29.62	- 23.26	- 11.11	- 8.76	- 8.41	0.03	- 9.75
Services	0.08	0.05	0.47	0.17	0.04	- 22.13	0.10	0.13	0.14	0.03	0.03	- 0.01	- 0.03	- 18.13	- 18.57	- 7.57	- 4.62	- 6.07	0.03	- 8.49

Annex table III.C.3. Quad EBA: Changes in bilateral exports

($ Millions)

Exporter/Importer	Australia-New Zealand	China	Rest of developed	Japan	Rest of Asia	Bangladesh	Canada	United States	Latin America and Caribbean	European Union	Eastern Europe and FSU	Middle East	Rest of Africa	Malawi	United Republic of Tanzania	Zambia	Uganda	Rest of Sub-Saharan Africa	19 ROW	Total
Australia-New Zealand	- 1.1	2.3	3.2	- 85.0	15.5	24.9	- 1.4	- 4.3	- 0.7	13.8	0.6	2.2	1.2	0.6	5.4	0.2	0.3	10.9	0.5	- 10.8
China	- 1.9	0.0	7.6	- 114.6	- 7.4	120.2	- 5.9	- 167.9	- 12.2	44.3	5.8	2.4	5.7	1.2	11.2	1	0.9	76.5	0.5	- 32.6
Rest of Developed	- 4.5	- 21.1	- 4.7	- 39.5	- 35.2	22.3	- 5.2	- 132.4	- 14.8	- 110.5	- 8.0	-9.9	-1.7	0.6	4.1	0.3	0.7	365.0	-2.5	2.9
Japan	12.4	53.0	47.1	0.0	182.1	45.1	7.0	112.8	14.3	170.9	9.5	29.8	11.5	7.3	13.4	2.4	2.4	73.5	6.7	801.1
Rest of Asia	- 7.1	- 23.3	12.4	- 260.6	- 60.8	‘	- 14.4	- 386.4	- 26.3	74.4	14.0	10.4	12	5.2	36.5	3.2	5	180.3	-0.2	- 107.3
Bangladesh	- 10.2	- 15.1	- 46.7	82.6	- 55.2	0.0	8.5	1 097.6	- 14.5	- 550.0	- 21.0	-43.2	-6.7	0	-0.1	-0.1	-0.1	- 6.5	-4.6	414.6
Canada	0.2	0.7	4.4	- 71.5	3.8	7.8	0.0	- 55.6	- 1.4	17.1	1.9	3.3	1.8	1.6	3.4	0.4	0.8	20.6	0.3	- 60.6
United States	5.7	19.4	35.4	- 259.3	85.6	66.0	- 26.2	0.1	- 21.4	249.6	16.4	50.5	17.9	7.4	28.3	3.4	3.9	184.5	4.5	471.5
Latin America and Carribean	1.3	2.0	9.6	- 98.1	14.6	22.7	2.6	- 238.3	0.5	118.2	10.9	6.4	8.3	4.1	8.2	0.6	0.8	57.9	1.5	- 66.0
European Union	- 17.5	- 19.0	33.8	- 145.8	- 74.3	110.2	- 32.1	- 241.9	- 93.2	- 43.9	0.4	-1.2	28.2	22.5	80.8	8	16.4	652.1	-4.5	279.5
Eastern Europe and FSU	- 0.5	- 1.4	2.0	- 31.8	- 1.3	14.6	- 2.1	- 21.6	- 3.0	63.0	- 4.0	0.8	1.1	0.9	5.2	0.3	0.7	21.0	-1.5	42.2
Middle East	- 1.5	- 2.4	- 0.9	- 12.8	- 4.9	21.5	- 1.8	- 41.4	- 4.2	37.3	- 1.5	-3.7	2.6	0.7	16.7	1.3	0.8	11.7	-0.7	17.2
Rest of Africa	- 1.0	- 1.2	- 0.3	- 22.0	- 8.1	8.2	- 1.8	- 22.6	- 4.1	- 49.5	0.7	-1.8	3.1	39.2	17.1	14.8	1.3	44.8	-0.6	16.4
Malawi	- 1.1	- 0.7	- 1.7	24.1	- 4.8	- 0.1	- 0.5	35.8	- 4.0	43.5	- 8.2	-2.5	-23.4	-0.1	-0.1	-0.4	-0.1	- 0.1	-1.2	54.4
United Republic of Tanzania	- 2.6	- 5.2	- 8.1	155.0	- 50.3	- 0.5	1.5	- 6.5	- 4.9	70.8	- 6.9	-5.2	-7.6	0	0	0	-0.1	- 7.0	-0.8	121.6
Zambia	- 0.4	- 4.6	- 0.9	- 9.6	- 30.4	0.1	- 1.5	- 10.6	- 4.9	105.4	- 1.1	-0.5	-5.9	0.1	-0.1	0	0	- 0.3	-0.4	34.0
Uganda	- 0.5	- 0.3	- 2.0	22.9	- 1.1	0.0	- 0.1	25.5	- 0.4	- 22.9	- 3.7	-0.5	-0.6	0	1	-0.4	0	- 0.1	-0.5	16.1
Rest of Sub-Saharan Africa	- 9.3	- 44.3	- 67.8	1 798.9	- 166.5	0.7	- 10.8	94.0	- 52.9	- 429.1	- 56.9	-45.2	-52.4	0.1	3.4	-0.1	-5.9	- 4.8	-10.4	940.8
19 ROW	0.0	3.7	0.6	- 10.4	2.7	12.9	- 0.5	- 24.4	- 1.5	3.2	0.8	0.1	0.5	0.4	2.2	0	0.2	8.2	-0.3	- 1.6
Total imports	- 39.4	- 57.6	22.7	922.8	- 196.0	795.1	- 84.7	11.7	- 249.7	- 194.3	- 50.3	-7.9	-4.4	92	236.7	34.6	27.9	1 688.3	-14	2 933.3
LDC exports	- 24.1	- 70.2	- 127.2	2 073.9	- 308.3	0.2	- 2.9	1 235.8	- 81.6	- 782.3	- 97.8	-97.1	-96.6	0.1	4.1	-1.0	-6.2	- 18.8	-17.9	1 581.5

Annex table III.C.4. Quad EBA: Changes in value added

(per cent)

Sectors	Australia-New Zealand	China	Rest of developed	Japan	Rest of Asia	Bangladesh	Canada	United States	Latin America and Caribbean	European Union	Eastern Europe and FSU	Middle East	Rest of Africa	Malawi	United Republic of Tanzania	Zambia	Uganda	Rest of Sub-Saharan Africa	19 ROW
Paddy rice	- 6.31	- 0.02	- 0.05	- 3.11	- 0.06	0.71	- 0.21	- 0.49	-0.05	- 2.23	- 0.06	- 0.03	- 0.04	11.97	31.74	17.66	2.53	6.81	- 0.03
Cereals	0.07	- 0.04	- 0.12	0.44	- 0.03	- 5.50	0.20	0.01	0.01	0.02	- 0.04	- 0.04	0.01	0.43	0.43	0.47	- 0.19	- 0.04	- 0.01
Vegetable, fruits, nuts	0.18	- 0.02	- 0.02	0.17	0.03	- 0.41	0.11	0.03	0.01	0.04	- 0.03	0.01	- 0.03	0.03	- 5.73	- 1.23	0.20	- 0.14	0.01
Oil seeds	- 2.33	- 0.24	- 0.21	- 1.70	- 0.01	- 9.03	- 1.43	- 0.49	-0.12	0.00	- 0.04	- 0.03	0.12	- 6.95	42.86	1.30	24.14	16.59	- 0.09
Sugar	- 0.12	- 0.04	- 0.27	- 0.04	- 0.06	0.41	- 0.65	- 0.10	-0.18	- 2.69	- 0.32	- 0.07	- 1.06	328.70	32.53	249.11	2.33	13.15	- 0.40
Plant-based fibers	1.15	0.24	0.44	5.41	0.23	- 8.40	0.33	0.54	0.37	1.60	1.03	1.19	0.51	- 18.54	- 20.89	- 8.43	- 4.24	- 5.49	0.14
Other crops	- 0.01	0.02	0.22	- 0.33	0.09	- 0.43	- 0.51	- 0.31	-0.01	0.63	0.64	0.07	0.75	- 5.19	- 5.12	- 0.37	- 1.85	- 0.70	0.12
Livestock and animal products	- 0.05	0.00	- 0.03	0.05	- 0.01	- 1.18	0.06	0.00	0.00	0.00	- 0.03	0.00	- 0.04	5.50	- 1.26	1.20	0.10	1.08	0.00
Forestry	0.11	0.11	0.15	0.12	0.08	1.11	0.02	0.06	0.06	0.21	0.21	0.08	0.12	- 0.23	- 0.55	- 0.30	- 0.19	- 1.65	0.19
Fishing	0.02	0.00	0.00	0.02	0.02	1.02	0.01	0.01	0.01	0.02	- 0.01	0.01	0.01	0.67	0.49	1.10	0.07	0.50	0.01
Coal, oil, gas and minerals	0.04	0.02	0.01	0.11	0.04	- 8.54	0.05	0.05	0.05	0.03	0.02	0.02	0.02	- 5.78	- 7.42	- 6.92	- 1.16	- 1.35	0.03
Meat and meat products	- 0.03	- 0.01	- 0.01	0.18	- 0.03	- 3.14	0.03	0.00	0.01	0.00	- 0.03	- 0.02	- 0.03	0.12	2.40	0.22	0.29	- 0.25	0.00
Vegetable oils and fats	- 0.05	- 0.01	- 0.04	0.86	- 0.01	- 4.13	0.12	0.01	0.07	0.04	- 0.06	- 0.02	- 0.06	- 0.12	- 14.02	0.04	- 5.10	- 1.90	0.00
Dairy products	- 0.26	- 0.01	- 0.08	- 0.19	- 0.02	- 3.57	- 0.03	- 0.01	0.00	0.00	- 0.06	- 0.02	- 0.03	10.37	60.23	15.14	11.10	23.77	- 0.01
Processed rice	- 6.61	- 0.03	- 0.22	- 3.31	- 0.10	0.98	- 0.12	- 2.24	-0.06	- 2.96	- 0.08	- 0.05	0.05	4.94	49.26	14.33	8.85	8.08	- 0.05
Other food products	- 0.10	- 0.15	- 0.14	0.01	- 0.19	1.19	- 0.06	- 0.01	-0.02	0.04	- 0.06	0.00	- 0.05	0.65	0.64	0.25	1.90	3.45	- 0.03
Beverages and tobacco	- 0.01	0.00	- 0.06	0.07	- 0.03	0.03	- 0.04	0.01	0.01	0.03	- 0.03	- 0.01	- 0.01	0.85	- 0.06	0.11	0.05	- 0.48	- 0.01
Textiles	0.08	0.11	- 0.07	0.10	0.12	- 1.98	- 0.09	- 0.06	-0.09	0.12	0.08	0.04	0.09	- 17.15	- 15.38	- 5.09	- 1.25	- 1.58	0.05
Wearing apparel	0.02	- 0.10	- 0.60	0.05	- 0.24	21.67	- 0.29	- 0.31	-0.29	0.16	0.16	- 0.11	0.06	- 21.09	- 2.35	- 0.83	- 3.40	- 1.52	- 0.10
Leather products	0.15	0.07	0.13	0.18	0.11	- 30.97	0.06	0.09	0.08	0.14	0.09	0.02	0.02	- 12.57	- 15.32	- 4.82	- 5.35	- 11.60	0.06
Manufactures	0.00	- 0.01	- 0.15	0.07	- 0.01	- 10.99	0.00	0.02	0.02	0.00	- 0.01	- 0.03	0.02	- 6.77	- 7.52	- 8.78	- 3.24	- 4.21	0.00
Services	0.00	0.00	0.05	0.00	0.00	0.56	0.01	0.00	0.00	0.00	0.00	0.00	- 0.01	0.38	- 1.22	- 1.60	- 0.16	- 0.31	0.00

CHAPTER IV

SENSITIVE SECTORS AND COUNTRIES

A. Introduction

The aim of this chapter is to examine the relationship between preferences and trade between LDCs and Quads at a finer level of aggregation for sectors and countries to complement the CGE analysis of the preceding chapter. Detailed, disaggregated data is important for several reasons. First, high protection in developed countries currently takes the form of "tariff peaks" in narrow product categories, which are tariff levels five times higher than the average. This means that the average tariff for an aggregated sector could be low, whereas the tariff for a product within the category could be quite high. Therefore, preferential liberalization from Quad countries may induce a substantial reshuffling of market shares even within broadly defined product categories, such as clothing. This phenomenon cannot be captured by aggregate CGE analysis.

A second reason why it is important to obtain information at a more detailed level of aggregation is that international specialization frequently occurs within sectors. Horizontal and vertical intra-industry trade accounts for a non-negligible share of total trade even between LDCs and Quad countries. To capture the likely impact of preferential liberalization on different countries within sectors, it is necessary to obtain data at a high level of sectoral disaggregation. Finally, CGE analysis only considers broad country aggregations, both for LDC and non-LDC countries. Information at a finer level of country aggregation permits the identification within each sector, such as which LDC and non-LDC countries will likely be impacted most by liberalization initiatives.

In order to evaluate the extent to which different countries compete in similar (narrowly defined) sectors in Quad markets export similarity indices have been computed. This methodology

helps to identify which are the non-LDC countries that are likely to suffer from more substantial market share losses associated with improved market access for given LDCs. Export similarity indices are computed in the next section between different LDC and non-LDC exporting countries in each Quad market.

Also, for each Quad country, a set of narrowly defined sectors is identified in which the redistribution of market shares following liberalization will be particularly acute. The analysis is undertaken in three steps. First, for each Quad member, a list of product categories (defined at the HS6 level of aggregation) is constructed in which tariff protection is the highest. Then, the top LDC and non-LDC exporters for each of these categories is identified. The second step is to identify, for each Quad member, the list of HS6 product categories in which export intensity from LDCs is the highest and the level of tariff protection within each of them. With these data, a set of product categories can be defined in which both tariff protection and LDC export intensity are relatively high. Not all protection in Quad countries takes the form of ad-valorem tariffs. Specific duties, quantitative restraints, tariff-quotas are still in place especially in agriculture, textiles, clothing and food products. Quite often, this protection is targeted to very narrow product categories. As a consequence, the third step is the construction, for each Quad market of a list of HS6 product categories in which non-tariff protection is present and where export intensity from LDCs is substantial.

B. Export similarity analysis

Which countries are more likely to be displaced from improved market access for LDCs? The CGE results presented in the previous chapter indicate that much depends on the importing country's characteristics and on the degree of similarity of LDC and non-LDC countries' exports to a given market. The more similar is the export pattern of a given pair of countries, the stronger will be the substitution after liberalization. In CGE analysis, the extent of substitution between exports of different sources is the complex outcome of the interaction between several factors, notably Armington substitution elasticities and the sectoral composition of exports. A limitation of CGE analysis, is that sectors are defined at quite broad levels. This may lead to unsatisfactory evaluations of sectoral export patterns (box IV.1). In particular, there may be a bias toward too much export similarity.[1]

Since importing country characteristics are likely to crucially affect the extent to which exports appear to be similar or diverse across exporting countries, different indexes are constructed for each Quad market. In order to maintain a sufficient degree of synthesis in the analysis the aggregate country definitions have been retained. Exports flows at the HS2 level have been aggregated across countries in such a way as to obtain the exports of a representative LDC (African, Asian, Pacific or Caribbean) or non-LDC country (OECD, or non-OECD African, Asian, or Latin American) in each Quad market. Equipped with these newly defined export data, an export similarity index can be constructed to measure the extent to which exports of a given pair of countries can be defined as similar. The index has a value of 1 when the distribution across sectors of a given pair of exporting countries is identical and 0 when the sectoral export distribution is perfectly dissimilar.[2] The higher the value of the index, the more similar the exports for a given pair of exporting countries.

Indices presented in table IV.1 and figures IV.1-IV.4 show that they vary quite substantially across Quad markets. For instance, the similarity of African LDCs and Asian LDCs ranges from 0.04 in Canada and United States to 0.15 in the European Union and 0.51 in Japan. Similar variation is

Box IV.1. Partial equilibrium analysis of preferential trade liberalization

Partial equilibrium analysis considers separately the markets in which the policy change is expected to take place.[a] This methodology neglects the interlinkages across other markets including factor markets, but it has certain advantages over general equilibrium analysis. First, it allows for a finer level of disaggregation. Second, the information required to conduct the analysis is much less, since the approach itself assumes away many of the aspects that determine price and output in the real world, such as factor allocations.

In order to assess how preferential trade policy affects the exports of different countries it is often assumed that consumers in the importing country perceive the imports originating from different countries as different goods (Armington assumption). Moreover, for simplicity, most of the existing analyses are carried out under the assumption that the elasticity of substitution across imports from each pair of foreign countries is constant and that the importing country is small (no terms of trade effects). Under these assumptions, for any change in the price (p) of imports from a given country *k*, $dp_k = dt_k p_k$ and the associated change in the imports (M) from other countries is proportional to initial imports. In fact, the change in imports from country *i* (different from *k*) can be written as:

$dM_i = \frac{\partial M_i}{\partial p_k} dp_k = e_i^k \frac{M_i}{(1+t_k)} dt_k$, where e_i^k is the cross-elasticity of good *i* with respect to the price of good *k*.

Since the elasticity of substitution between *i* and *k*,

$s_{i,k} = \frac{\partial (M_i / M_k)}{\partial (p_k / p_i)} \frac{p_k / p_i}{M_i / M_k}$, can be expressed as $s_{i,k} = e_i^k - e_i$, (where e_i is the own demand elasticity of good *i*)

it must be that $e_i^k = e_j^k$ because the elasticity of substitution is constant across all pair of varieties.

It follows that $\frac{dM_i}{dM_j} = \frac{M_i}{M_j}$. This result can be used as a "rule of thumb" to evaluate ex-ante the within-industry redistribution of market shares associated with a preferential tariff reform (see section D of this chapter).

The total change in imports associated with a tariff reduction for product *k*, $dt_k < 0$, can be obtained by summing up the changes of imports from all the exporting countries (ranging from1 to *K*):

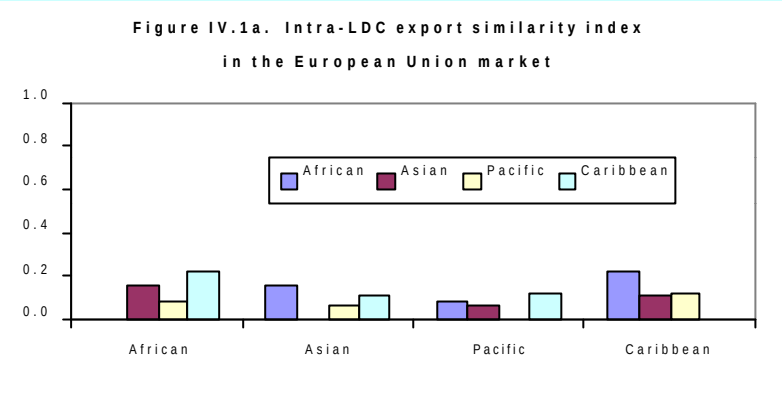
$dM = \sum_{i=1}^{K} dM_i = (e_k M_k + \sum_{i=1}^{K} e_i^k M_i) \frac{dt_k}{(1+t_k)}$.

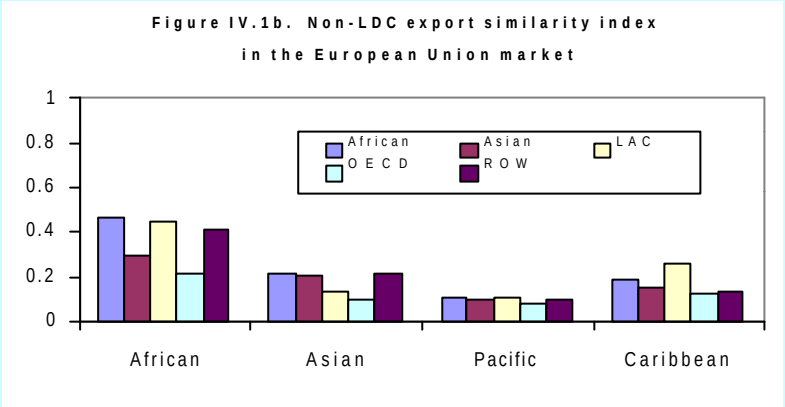
When the elasticity of substitution is constant the change in the total value of imports will be higher the higher are the own demand elasticity, the tariff change, the initial level of imports, the lower the substitution terms and the initial level of competing imports.

When preferential liberalization is targeted to LDCs, the value of M_k is expected to be small, thus implying a limited impact on total imports and a relatively more important role for substitution effects. Given the low share of imports from LDCs, preferential liberalization targeted to these countries will have a small impact on the average import price, and will mostly result in market share reshuffling associated with relative price changes between imported goods.

[a] Partial equilibrium analysis of preferential trade agreements goes back to Viner (1950) (see also Corden (1984) or Vousden (1990) for a review of more recent contributions). Computable partial equilibrium analysis aimed at assessing the effects of GSP or analogous non-reciprocal preferential schemes has been abundant in the past decades. See, for instance, Baldwin and Murray (1977), Sapir and Lundberg (1984), Karsenty and Laird (1987a, 1987b), Pomfret (1986) and McPhee (1989). For a recent computable partial equilibrium analysis on tariff-peak removal against LDCs, see Hoekman, Ng, and Olarreaga (2000).

Figure IV.1. European Union: Export similarity analysis, 1999



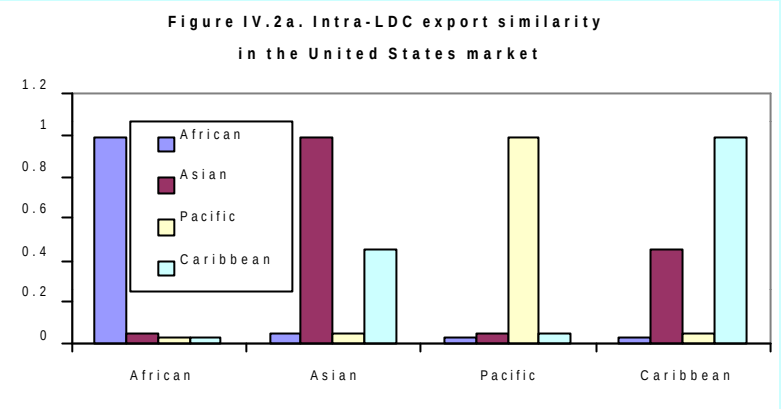


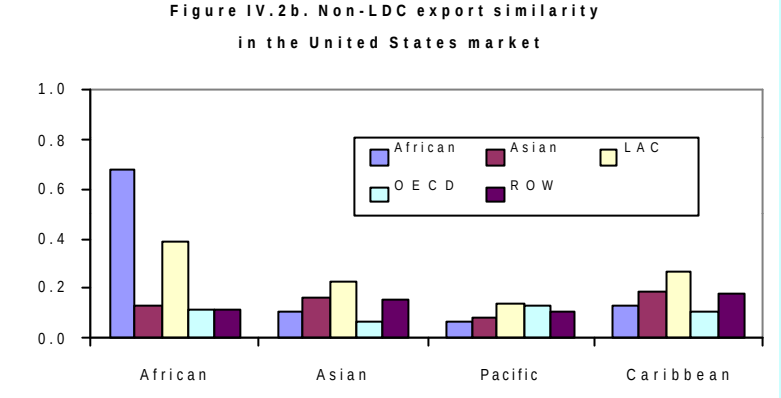
found among LDC and non LDC indices. The similarity index for African LDCs and African non-LDCs, ranges from 0.14 in Canada to 0.25 in Japan, 0.46 in European Union and 0.68 in the United States. Several factors may be held accountable for this variance. First, importing countries' structural characteristics and geographical distance. Second, the patterns of protection are different in each Quad market, thus inducing different export incentives to LDCs. Textiles are more protected in the United States and Canada, while agriculture is more protected in the European Union and Japan. Furthermore, especially in the case of Japan, some items may be protected by prohibitive tariffs. Hence, regardless of export capacities in those items, this induces more similarity between various exporters in products with non-prohibitive tariffs. Third, with the exception of Japan, Quad countries have in place more than one preferential scheme. These schemes have different, although sometimes overlapping membership for certain LDCs, and their sectoral coverage can differ substantially. This may also explain why in Japan exports tend to be more similar than in the other Quads.

A further analysis of the data presented in table IV.1 shows that in the European Union market, exports from African LDCs are more similar to those from Caribbean LDCs and quite dissimilar with those from Pacific LDCs. Moreover, exports from African LDCs in the European Union are much more similar to exports from non-LDC countries when compared with the exports from other LDCs. The highest similarity is between the exports of African LDCs to the European Union and the exports of African non-LDCs to the European Union, but also the degree of similarity with the exports of Latin American non-LDC countries and the rest of the world is remarkably high. Therefore, the exports to the European Union of African LDCs compete closely with those of African non-LDCs. Therefore, it can be expected, that on average, any market share gain for African LDCs will be associated with potentially significant market share losses for other non-LDCs African countries and with smaller losses for other non-LDC competitors. This evidence is consistent with the findings from the CGE simulations presented in the previous chapter.

The results change when the United States is the importing market. Across LDCs, the indexes are close to zero, with the exception of exports from Asian LDCs that are very similar to those

Figure IV.2. United States: Export similarity analysis, 1999





of Caribbean LDCs.[3] Looking at export similarity with non-LDC regions, it can again be noted that exports from African LDCs are very similar to those of African non-LDCs, also on the United States market and quite similar to those of Latin American countries. Non-reciprocal liberalization in the United States will then most probably induce a redistribution of market shares between African LDCs and non-LDCs. Latin American countries will also be hit by rising market shares of African LDCs. As for Asian LDC exporters to the United States, they might displace exports from Caribbean LDCs (Haiti). In fact, the export similarity index between Asian and Caribbean LDCs is very high. Moreover, Caribbean countries currently benefit from preference margins under the Caribbean Basin Economic Recovery Act that are normally higher than those granted by the United States to LDCs under its GSP scheme. Among the non-LDC competitors, those that are likely to lose market shares as a consequence of increased Asian LDC exports are especially Latin American countries and the Asian non-OECD countries. Again, this evidence is consistent with the findings from the CGE simulations: when duty-free, quota-free concessions are granted by all Quads, losses from Latin American countries rise substantially compared with EBA being implemented by only the European Union.

Results similar to those for the United States were obtained for Canada. In that market, exports from Asian LDCs are very similar to Pacific and Caribbean LDCs, while exports from LDCs are in general very dissimilar with those from non-LDC countries. In other Quad markets, exports from African LDCs tend to be quite similar to export from Latin American countries.

Finally, looking at Japan, the degree of export similarity appears quite high, both, considering LDCs against other LDCs and LDCs against non-LDC countries (the only exception are Caribbean LDCs, that seem to have an export mix dissimilar to that of any other country). This is probably due to the clear-cut structure of Japan's high protection in agriculture and food and very low preference margins (only occurring through GSP schemes), coupled with an import structure structurally biased toward raw materials, primary products and energy. It is also interesting to note that Japan's imports from African LDCs tend to be very similar to those of Asian LDCs, a fact that does not emerge in the other Quad countries. Moreover, Asian LDC exports appear to be similar to those of Asian non-

LDCs, while for African LDCs the similarity with other African countries and Latin American countries is confirmed. The most substantial market share redistribution will probably occur at the expense of non-LDC Asian countries.

C. Disaggregating sectors

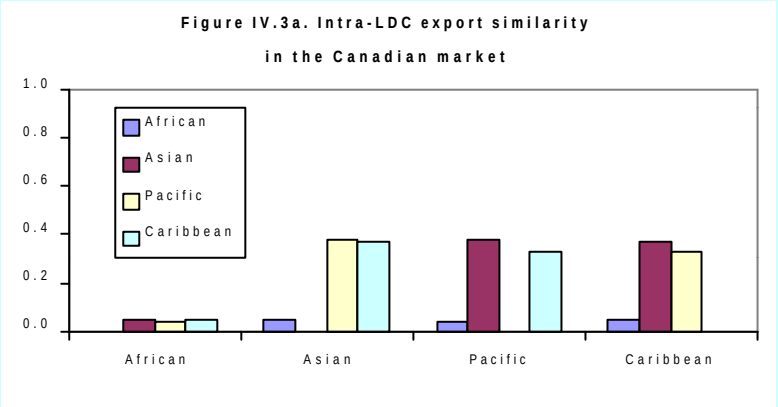
1. Ad valorem tariffs

In this section analysis is undertaken at a further level of disaggregation. To begin with, the twenty highest ad-valorem HS6 tariff lines faced by LDCs in each Quad country are identified (tables IV.2-IV.5).[4] Products in these tariff lines are those for which the reduction in protection arising from non-reciprocal preferential trading agreements is the most pronounced. To evaluate the extent to which sectors can actually be defined as "sensitive", information on protection must be complemented with information on trade flows. In particular, export penetration of LDCs within each tariff line must be computed. The assumption here is that reshuffling of market shares will most probably be more pronounced if LDCs are exporters prior to the granting of preferences. An alternative interpretation, however, is that LDCs may not be exporting because of protection, so that exports are nil simply because tariffs are prohibitive. To distinguish between the two cases, it must be properly assess how the product categories considered are represented in the production pattern of LDCs, the level of protection granted to the sector and the extent to which high protection discourages imports from all sources, not only from LDCs. Together with protection data, data on total imports from each Quad and the share of import originating from LDCs is also reported.

In order to identify which countries are likely to be most affected by preferences the top three LDC and non LDC exporters in each Quad market are identified.

As expected, the highest levels of protection in the European Union and Japan are in agriculture and in textiles, whereas in Canada and the United States the highest level of protection is in apparel. Furthermore, there is a remarkable dispersion in protection even

Figure IV.3. Canada: Export similarity analysis, 1999



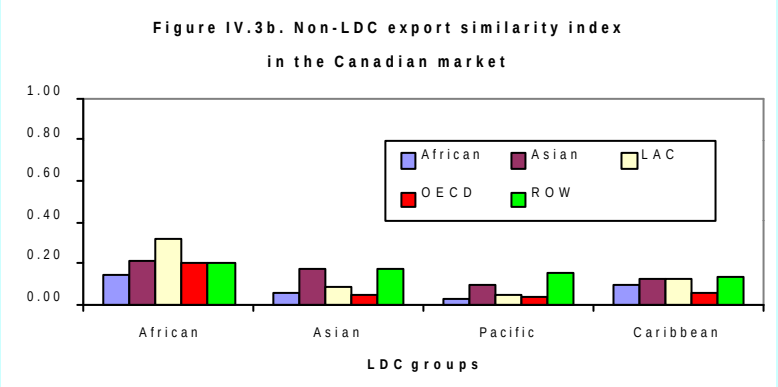
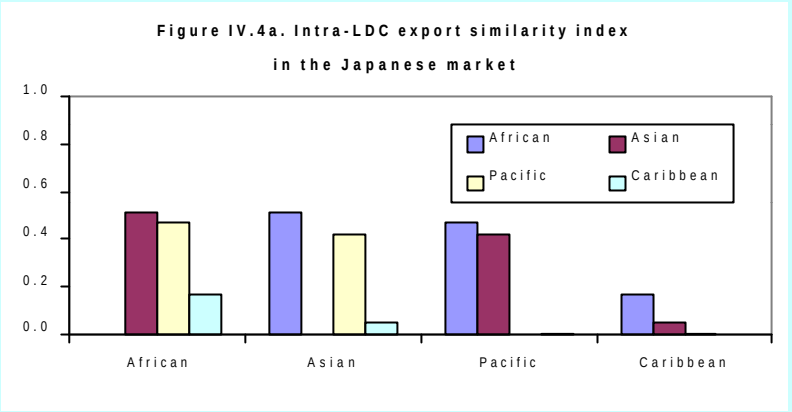
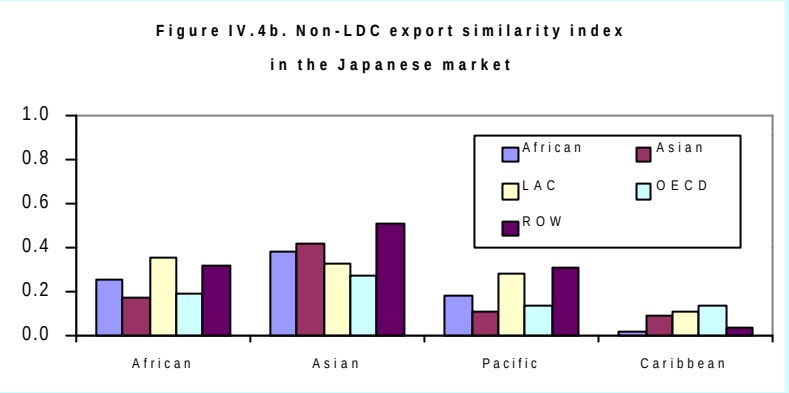


Figure IV.4. Japan: Export similarity analysis, 1999





within narrow sectoral aggregations. Considering, for instance, imports into the European Union, for a given sector at the HS2 level (edible fruits) some HS6 categories appear heavily protected (apricots), while other are much less so (apples).[5] Second, the European Union has, on average, lower tariffs at the higher end of the scale compared with the other Quad countries. Canada and the United States have a higher average rate of protection and higher variance across tariff lines, while the protection of Japan is high on average, but with small variance. Third, it is often the case that in the categories that have the highest protection against LDCs imports originating from LDCs are null. In the case of Japan, it seems that in a considerable share of sectors that receive high protection imports are zero because protection is prohibitive.

Going into further detail for each Quad, it can be noted that in the European Union market (table V.2), LDC exports in top 20 tariff lines are confined only to three HS2 categories: edible fruits, edible vegetables and cereals. For cereals (sorghum), the only LDC exporters are Ethiopia and Sudan and together account for 32.89 per cent of one HS6-level tariff line. The LDCs that export in the tariff lines belonging to edible fruits and vegetables are mainly African (Mozambique, Madagascar, Zambia, Djibuti), but also non-African LDCs (Haiti, Myanmar). The non-LDC countries that compete in these high-tariff vegetable and fruit products in the European Union are especially North-African and Middle East countries (Turkey, Israel, Morocco, Saudi Arabia).

In Canada (table IV.3), among the top-twenty tariff lines, there are only six HS2 categories where LDCs are currently exporting: meat products, edible fruits, vegetables, textiles, apparel and footwear. Exports in those product categories originate in only seven countries: Bangladesh, Cambodia, Haiti, Madagascar, Myanmar, Nepal and Niger. The non-LDC countries that are most likely to be affected in those product categories are the United States, the European Union, China and other non-LDC Asian countries (Hong Kong, China, Viet Nam and Indonesia).

In the United States (table IV.4), high tariffs are coupled with positive LDC export shares in tobacco, vegetables, apparel, footwear and furniture. The top LDC exporters to the United States in

these categories are Asian LDCs specialized in apparel manufacturing (Bangladesh, Cambodia, Myanmar) and African LDCs that are mainly tobacco exporters (United Republic of Tanzania, Malawi, Zambia). Furthermore, Asian LDCs and Haiti often compete in these same categories. As for non-LDC exporters, the most affected in apparel goods will be Asian (China, Philippines, Taiwan Province of China) and Latin American Countries (Mexico, Honduras, Costa Rica), whereas in tobacco the displaced countries will be Turkey, Mexico, Lebanon, Argentina and Brazil.

As for Japan (table IV.5), the only product included among the twenty most protected by tariffs that is actually imported from LDCs is found in dairy products, with imports coming from United Republic of Tanzania. This evidence is to a certain extent explained by the fact that protection is prohibitive for LDCs. In this case, positive exports would materialise only after liberalization. The potential non-LDC competitors in the Japanese market would be China in dairy products, Korea, the United States and the European Union in sugar, United States and Australia in meat and European Union, United States, China and Israel in processed vegetables and fruits.

In order to complement the above analysis a different approach is taken. Instead of ranking sectors according to protection levels and checking for LDC exports, the ranking is performed according to share of LDC exports, while the extent of protection is checked after. The aim is to isolate a list of sectors where, at given initial protection level, preferential liberalization for LDCs will induce a very strong redistribution in market shares across exporting countries. The results indicate that the goods most intensively imported from LDCs are basically the same for all Quad countries. Not surprisingly, they consist of basic agricultural goods and foodstuff (vanilla, oil seeds, gum), textile fibers and natural resources (salt, aluminum and copper ores). It is interesting to note that for Canada and the United States some apparel products are intensively imported from LDCs, whereas this does not occur in the European Union and Japan. This may in all probability be due to the fact that apparel imports from non-LDC countries find much higher protection in the United States and Canada.

Protection is substantial in only very few of the items that are extensively exported by LDCs. In Canada, some particular apparel products (briefs and panties, tents) may receive tariff treatment above 20 per cent. Similarly, in the United States, swimwear and headgear are highly protected.

2. Other forms of protection

The analysis so far has been restricted to protection in terms of ad-valorem tariffs. However, many items, especially in agriculture, textiles and apparel, are still protected in Quad markets through other protection instruments, like specific duties or quotas. Therefore, the information provided so far is complemented with a list of products that are protected by means other than ad-valorem tariffs and in which there are exports originating from LDCs. Tables IV.10-IV.13 list the the top-thirty HS6 categories in which protection in forms other than ad-valorem tariffs is in place, ranked according LDC export shares. In the European Union, the high share of LDC exports are in sugar, tobacco and alcoholic beverages (rum), all goods that are subject to non-tariff protection. Semi-milled rice also appears on the list. Conversely, in the United States, substantial export shares from LDCs can be found in few apparel categories. The case of Canada is different. There, the share of LDC exports is either very low or zero in almost all categories subject to protection other than ad-valorem tariff. In some of these categories (especially in apparel or food products) protection may be prohibitive for LDCs. The case of Japan is even more extreme. There, imports are zero from all sources in almost all categories. Here, the suspicion that this type of protection is prohibitive is even stronger.

D. Disaggregating countries

When constructing the list of the top-twenty tariff lines for LDCs in Quad markets, countries that are most likely to be involved in the market share redistribution following preferential liberalization were identified. The presumption is that the top non-LDC exporters will be those countries that will suffer strongest market share losses after non-reciprocal PTA in favor on LDCs. The idea behind this is the following: assuming a substitution elasticity that is roughly the same between imports of the same good originating from different sources, a reduction in the price of LDC exports will induce roughly the same proportional reduction in imports from alternative sources. Hence, the absolute loss of exports will be higher for the countries that export heavily before liberalization occurs (box V.1). It may be of interest, however, to go further in this type of analysis, trying to identify all the possible competitors of LDC exports in some selected categories. This allows identifying also those small exporters that may nonetheless rely very much on their exports to the Quad markets in the selected sensitive sectors. In tables IV.14-IV.17 several representative products were selected for each Quad market. For these products, exports above $100,000 are ranked according to their country of origin.

In the case of the United States, these products are apparel and clothing, carpets, leather products and tobacco. In apparel, only Bangladesh, Cambodia, Haiti, Nepal, Myanmar and Maldives appear among the top 50 exporters. Assuming no increase in demand and no reduction in domestic production, data presented in table IV.14 suggests that, for instance, a fifty per cent increase in apparel exports from Bangladesh would translate into an overall 2 per cent reduction in current exports from third countries. Big market-share losses will accrue to big exporters. However, small exporters may see their market share reduced significantly, and may even be driven outright out of the market. African LDCs for instance, with the exception of Madagascar, are such small exporters. The only other exporters above the $100,000 threshold are Malawi, Mali, Sierra Leone and United Republic of Tanzania. Even though African countries may already qualify for duty-free and quota-free market access in the United States market under the AGOA, granting duty-free quota-free market access to all LDCs, including competitive Asian producers like Bangladesh and Cambodia, may result in a decrease in exports from African LDCs.

Similar remarks may be made about exports from several African LDCs (Malawi, United Republic of Tanzania, Central African Republic) in tobacco products, or leather products with regard to the impact of granting unrestricted market access to LDCs. With regard to carpets, this may constitute a typical example of goods that are more differentiated by country of origin and therefore, increases in exports from one source do not result in uniform decreases of third country market shares. In this particular case, carpets from developing countries have higher elasticities of substitution, among them, relative to those between carpets originating in developing and developed countries. Consequently an increase of exports from Nepal (top 11) will be to a greater extent done at the expense of market shares of other developing countries such as India, Pakistan, China or Egypt.

For Canada, the LDC export performance in apparel and carpets is similar to the one described above for the United States and the effects should probably follow the same pattern. A notable difference is the presence of Haiti in the top 10 exporters of other textile articles and Cambodia and Myanmar among the top 50 exporters of footwear.

The selected products in the case of the European Union are bananas, rice, sugar and rum.

Among these products, as mentioned in the previous chapter, sugar is the most sensitive product. Malawi, Republic of Tanzania, Madagascar, Zambia and Myanmar were the LDCs found among the top 50 exporters of sugar to the EU in 1999. As sugar is a homogeneous good, a reasonable assumption is to consider market share restructuring to be proportional across third countries. Therefore, in absolute terms, Mauritius, Fiji and Guyana will be the countries most affected by a reduction in their market share. As for the other sectors, with the exception of rice exports from Madagascar, rum from Comoros and Haiti and bananas from Rwanda and Uganda, all other LDC exports are very small, well below the $100,000 threshold. In the case of rum for instance, a 50 per cent increase in exports from Comoros and Haiti (the only LDCs with significant exports) would only induce less than 0.06 per cent reduction in current third country market shares.

In the case of Japan, the selected products are fish and crustaceans, meat products, and to a much lesser extent dairy products and milled products. Out of these products, fish and crustaceans represent by far the sector where LDCs are among the top 50 exporters. Granting unrestricted market access to fish exports from LDCs will most likely result in an overall reduction in current market shares. Under this assumption, in absolute values, China, United States, Russian Federation and Republic of Korea will most likely bear the highest reduction in their market share. However, small islands and other developing countries may also see a relative decline in their market share as a result of unrestricted market access for LDCs.

E. Conclusions

The export similarity indices indicate a substitution relationship between LDC exports and between LDCs and non-LDC exports that depends on a particular Quad market. Overall, exports from African LDCs are quite similar to those from Caribbean LDCs and dissimilar to those from Asian LDCs. In general, LDC exports are quite dissimilar to those from OECD countries. In all Quads, exports from African LDCs appear to be very similar to the exports from African non-LDCs and quite similar to those from Latin American countries. Exports from Asian LDCs are quite similar to those of Latin American countries (especially in the United States) and those from Asian non-LDCs (especially in Japan). These results support those obtained in the previous chapter. In particular, the indication is that preferential liberalization in the European Union and Japan will mainly imply a redistribution of market shares from African non-LDCs to African LDCs, while in Canada and the United States, Latin American countries may suffer due to market share gains of Asian LDCs. Furthermore, the detailed analysis at HS6 level identified a number of sensitive products and affected third countries.

Overall, the information provided in this chapter suggests that the effects of preferential liberalization in favor of LDCs may be very strong in a relatively small number of narrowly defined product categories. These categories will mainly belong to agriculture and food in the European Union and Japanese markets, apparel in the United States and food and apparel in Canada (table IV.18). Protection in these categories may take the form of high ad-valorem tariffs or non-tariff protection. Moreover, market-share reshuffling associated with preferential liberalization will concern different countries depending on the single product category considered in each Quad market. A list of countries that compete with LDCs in “sensitive” countries is compiled in table IV.19.

NOTES

[1] Take a pair of countries, both with half their exports in agriculture and half in textiles. At this level of aggregation they would seem identical. Disaggregating sectors further, it may be discovered that these two countries export very different apparel and agricultural products.

[2] Technically, denoting by $ES^{k}_{i,j}$ the export similarity index between exporter *i* and exporter *j* in country *k*, these indexes are given by $ES^{k}_{i,j} = \sum_{s} \min(Ak^{i}_{s}, Ak^{j}_{s})$, where Ak^{i}_{s} is the share of exports of product s from *i* to *k* over total exports from *i* to *k* and Ak^{j}_{s} is the share of exports of product s from *j* to *k* over total exports from *j* to *k*. For an illustration of the properties of the index, see Finger and Kreinin (1979).

[3] This high similarity is to a large extent explained by the importance of textile and clothing exports for the two regions.

[4] Note that the primary concern is not the identification of so-called “tariff-peaks”, namely, the tariff lines where protection is above 15 per cent.

[5] The description of the HS6 categories characterized by tariff peaks in tables IV.2-IV.5 are not reported, but are available upon request.

Table IV.1. Export similarity indices, 1999

		LDCs				Non-LDCs				
Market	**LDC**	**African**	**Asian**	**Pacific**	**Caribbean**	**African**	**Asian**	**LAC**	**OECD**	**ROW**
Canada	African	1.00	0.04	0.04	0.05	0.14	0.21	0.32	0.20	0.21
	Asian	0.04	1.00	0.38	0.37	0.06	0.17	0.09	0.05	0.17
	Pacific	0.04	0.38	1.00	0.33	0.03	0.09	0.05	0.04	0.16
	Caribbean	0.05	0.37	0.33	1.00	0.10	0.12	0.12	0.06	0.14
Europe	African	1.00	0.15	0.08	0.21	0.46	0.29	0.44	0.22	0.41
	Asian	0.15	1.00	0.06	0.11	0.22	0.21	0.13	0.10	0.22
	Pacific	0.08	0.06	1.00	0.12	0.10	0.10	0.10	0.07	0.10
	Caribbean	0.21	0.11	0.12	1.00	0.20	0.15	0.26	0.12	0.13
Japan	African	1.00	0.51	0.47	0.17	0.25	0.17	0.35	0.19	0.32
	Asian	0.51	1.00	0.42	0.05	0.38	0.42	0.32	0.27	0.51
	Pacific	0.47	0.42	1.00	0.00	0.18	0.11	0.28	0.13	0.30
	Caribbean	0.17	0.05	0.00	1.00	0.01	0.08	0.11	0.13	0.03
United	African	1.00	0.04	0.03	0.03	0.68	0.13	0.39	0.12	0.12
States	Asian	0.04	1.00	0.05	0.46	0.11	0.16	0.22	0.07	0.16
	Pacific	0.03	0.05	1.00	0.05	0.07	0.09	0.14	0.13	0.11
	Caribbean	0.03	0.46	0.05	1.00	0.14	0.19	0.27	0.11	0.18

Source: UNCTAD.

Legend:

African LDCs: Angola, Burundi, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Benin, Equatorial Guinea, Ethiopia, Eritria, Djibouti, Gambia, Guinea, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Guinea-Bissau, Rwanda, Sao Tome and Principe, Sierra Leone, Somalia, Sudan, Togo, Uganda, United.Republic of Tanzania, Burkina Faso, Zambia.

Asian LDCs: Afghanistan, Bangladesh, Bhutan, Myanmar, Cambodia, Lao People's Dem. Rep., Maldives, Nepal, Yemen.

Pacific LDCs: Kiribati, Samoa, Solomon Islands, Vanuatu, Tuvalu.

Caribbean LDCs: Haiti.

African non-LDCs: Algeria, Botswana, Cameroon, Cape Verde, Congo, Cote d'Ivoire, Egypt, Former Ethiopia, Gabon, Ghana, Kenya, Libyan Arab Jamahiriya, Mauritius, Morocco, Namibia, Nigeria, S. Afr. custom Union, Senegal, Seychelles, Swaziland, Tunisia, Western Sahara, Zimbabwe.

Asian non-LDCs: Bahrain, Brunei Darussalam, China, East Timor, Fiji, French Polynesia, Georgia, Guam, Hong Kong (China), India, Indonesia, Iran, Iraq, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Lebanon, Malaysia, Fed. States of Micronesia, Midway Islands, Mongolia, Nauru, New Caledonia, Niue, Norfolk Island, Northern Mariana Islands, Pacific Islands, Pakistan, Palau, Papua New Guinea, Philippines, Pitcairn, Qatar, Saudi Arabia, Singapore, Sri Lanka, Syrian Arab Republic, Taiwan Province of China, Tajikistan, Thailand, Tokelau, Tonga, Turkmenistan, United Arab Emirates, Uzbekistan, Viet Nam, Wake Island, Wallis and Futura Isl., Yemen, A. R. Yemen Democratic.

Latin American and Caribbean: Antigua, Barbuda, Argentina, Bahamas, Barbados, Bermuda, Bolivia, Brazil, Belize, British Virgin Islands, Cayman Islands, Chile, Colombia, Cook Islands, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Falkland Island, French Guiana, Grenada, Guadeloupe, Guatemala, Guyana, Honduras, Jamaica, Martinique, Netherlands Antilles, Aruba, Nicaragua, Marshall Islands, Panama, Paraguay, Peru, Puerto Rico, Reunion, Saint Helena, Saint Kitts-Nevis, Saint Lucia, Saint Pierre and Miquelon, Saint Vincent and Grenadines, Suriname, Trinidad and Tobago, Turks and Caicos Isl., United States Virgin Isl., Uruguay, Venezuela.

OECD: Australia, Austria, Belgium and Luxembourg, Canada, Czechoslovakia, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Republic of Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States, European Union.

ROW: Albania, American Samoa, Andorra, Angola, Anguila, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, British Indian Ocean Ter., Bulgaria, Christmas Island, Cocos (Keeling) Islands, Croatia, Cyprus, Estonia, Faer Oer Islands, Gibraltar, Greenland, Holy See, Isle of Man, Israel, Jhonston Island, Democractic People's Republic of Korea, Latvia, Liechtenstein, Lithuania, Macau, Malta, Moldova, Republic of Monaco, Montserrat, Oman, Romania, Russian Federation, San Marino, Sao Tome and Principe, Sierra Leone, Slovenia, Sudan, Svalbard and Jan Mayen Is, TFYR Macedonia, Ukraine, Fed. Rep. of Yugoslavia.

Table IV.2. European Union: Highest ad-valorem tariffs against LDCs, 2000

HS2 category	Number of HS6 cat. covered	LDC tariff (%)	MFN tariff (%)	Total European Union imports in covered HS6 cat.	Share of imports from LDCs (%)	Top exporters	Top LDC exporters
22 Beverages	1	32.00	32.00	26	0	Chile, United States, Australia	
08 Edible fruits	1	17.00	20.00	8 948	0	Turkey, Chile, New Zealand	
08 Edible fruits	1	16.00	16.00	204 627	0	Israel, Morocco, Swaziland	
08 Edible fruits	1	15.25	15.25	390 099	0.35	Turkey, Israel, Saudi Arabia	Haiti, Djibuti, Mozambique,
08 Edible fruits	1	14.90	17.60	27425	0.04	United States, Argentina, Chile	Kiribati, Zambia
16 Preparation of meat	1	14.73	16.60	20	0	Switzerland, Bosnia, Poland	
08 Edible fruits	1	11.10	12.00	93 140	0	Czech Rep., Romania, Norway	
16 Preparation of meat	2	10.90	10.90	179 620	0	Slovenia, Croatia, Hungary	
07 Edible vegetables	1	10.80	12.80	13 920	0.04	Bulgaria, Morocco, Jordan	
07 Edible vegetables	1	10.40	10.40	1 431	0.42	Egypt, Morocco, Tunisia	Ethiopia
08 Edible fruits	1	9.50	11.20	64 909	0	Israel, Morocco, United States	
16 Preparation of meat	1	9.47	14.07	672	0	Hungary, Switzerland, Israel	
16 Preparation of meat	1	8.50	8.50	77 896	0	Israel, Bulgaria, United States	
07 Edible vegetables	1	8.10	9.60	43 720	0.38	Mexico, Pakistan, Turkey	Myanmar, Madagascar
04 Dairy prod.	2	7.70	7.70	500 774	0	Switzerland, Cyprus, Australia	
08 Edible fruits	1	6.85	11.35	462 660	0.02	United States, Morocco, Australia	Djibouti
17 Sugar	1	6.80	8.00	14 473	0	United States, Canada, Switzerland	
10 Cereals	1	6.40	6.40	33 423	32.89	Australia, Canada, India	Ethiopia, Sudan
02 Meat	3	6.40	6.40	91 220	0	Switzerland, Hungary, Brazil	
08 Edible fruits	1	6.10	7.20	633 068	0	China, United States, Croatia	

Source: UNCTAD.

Legend: 20 highest tariff lines facing LDCs after taking into account preferential treatment. The description of the HS6 categories involved is available on request.

Top exporters relate to the covered HS6 categories only and are identified using 1999 trade data.

Table IV.3. Canada: Highest ad-valorem tariffs against LDCs, 2000

HS2 category	Number of HS6 cat. covered	LDC tariff (%)	MFN tariff (%)	Total European Union imports in covered HS6 cat.	Share of imports from LDCs (%)	Top exporters in covered HS6 cat	Top LDC exporters in covered HS6 cat
10 Cereals	1	78.50	78.50	1 339	0	US	
16 Preparation of meat	1	65.83	65.33	228	0	EU, US, Poland	
10 Cereals	1	59.25	59.25	3 641	0	US	
10 Cereals	1	50.00	50.00	1 580	0	US, EU, NZ	
16 Preparation of meat	1	49.06	69.00	47 416	0	US, Australia, EU	
62 Not knitted apparel	1	20.75	20.75	13 185	4.91	China, US, HK	Cambodia,
61 Knitted apparel	96	20.50	20.50	1 136 409	4.69	US, EU, HK	Bangladesh, Nepal Myanmar, Bangladesh, Cambodia
62 Not knitted apparel	51	20.50	20.50	586 679	2.69	EU, US, China	Bangladesh,
63 Textiles articles	17	20.50	20.50	133 122	2.37	US, EU, China	Cambodia, Myanmar Bangladesh, Niger, Cambodia
63 Textiles articles	1	20.00	20.00	3 440	0.06	EU, US, China	Bangladesh
64 Footwear	4	20.00	20.00	98 269	0.02	China, Indonesia, Viet Nam	Cambodia
64 Footwear	3	19.50	19.50	187 843	0.08	China, Viet Nam, Indonesia	Cambodia
62 Not knitted apparel	36	19.00	19.00	841 179	4.38	EU, US, China	Myanmar,
63. Textiles articles.	18	19.00	19.00	211 661	2.02	China, TPC, US	Bangladesh, Nepal Bangladesh, Cambodia
62 Not knitted apparel	1	18.50	18.50	732	0.14	EU, US, India	Bangladesh
63 Textiles articles.	1	18.50	18.50	377	0.27	China, US, TPC	Nepal
58 Special woven fabrics	2	18.00	18.00	6 286	1.22	US, EU, Turkey	Haiti
63 Other made up textiles art.	2	18.00	18.00	2 970	0	US, China, India	
64 Footwear	2	18.00	18.00	6 746	0	EU, US, China	
64 Footwear	1	17.50	17.50	112	0	China, US, Mexico	
63 Other made up textiles art.	2	17.25	17.25	5 044	0	China, US, India	
20 Preparation of vegetable, fruit	1	17.00	17.00	9 866	0.11	China, US, New Zealand	Madagascar
22 Beverages	2	16.00	16.00	8 702	0	EU, US, Japan	
52 Cotton	30	16.00	16.00	60 583	0	EU, US, Pakistan	
54 Man-made filaments	10	16.00	16.00	43 118	0	US, Indonesia, Republic of Korea	
55 Man-made staple fibres	45	16.00	16.00	113122	0	US, EU, China	
56 Wadding, felt & nonwoven	1	16.00	16.00	700	0	US, EU, Korea	
58 Special woven fabrics	6	16.00	16.00	1 391	0	US, TPC, Japan	
60 Knitted or crocheted fabrics	4	16.00	16.00	33 386	0	US, TPC, EU	
62 Not knitted apparel	1	16.00	16.00	402	0	China, Korea, TPC	
94 Furniture	1	15.50	15.50	8 560	0.01	China, US, Virgin Islands	Bangladesh
65 Headgear	1	15.50	15.50	1 157	0	US, EU, China	
68 Art. of stone, plaster, cement	1	15.50	15.50	204	0	US, EU, India	
58 Special woven fabrics	2	15.00	15.00	4 998	0	US, China, HK	
20 Prep. of vegetable, fruit	1	14.00	14.00	564	0	US, China, SACU	
52 Cotton	9	14.00	14.00	97 753	0	US, India, Australia	
58 Special woven fabrics	3	14.00	14.00	7 172	0	US, EU, Turkey	
94 Furniture	1	14.00	14.00	59 767	0	US, China, Korea	
64 Footwear	4	13.33	13.33	127 556	0	EU, TPC, HK	

Source: UNCTAD.

Legend: 20 highest tariff lines facing LDCs after taking into account preferential treatment. The description of the HS6 categories involved is available on request.

Top exporters relates to the covered HS6 categories only and are identified using 1999 trade data.

EU: European Union HK: Hong Kong, China

TPC: Taiwan Province of China US: United States

Table IV.4. United States: Highest ad-valorem tariffs against LDCs, 2000

HS2 category	Number of HS6 cat. covered	LDC tariff (%)	MFN tariff (%)	Total European Union imports in covered HS6 cat.	Share of imports from LDCs (%)	Top exporters in covered HS6 cat	Top LDC exporters in covered HS6 cat
24 Tobacco	3	87.50	350.00	24 400	0	EU, Venezuela, Canada	
12 Oil seed	1	54.60	163.80	1 246	0	Mexico	
24 Tobacco	1	46.67	77.78	408 505	13.69	EU. Brazil. Thailand	United Republic of Tanzania, Malawi, Zambia
12 Oil seed	1	43.93	131.80	41 929	1.00		
20 Preparation of vegetable. fruit		43.93	79.08	34 844	0		
24 Tobacco	1	38.89	58.33	354 649	0.84	Turkey, Mexico, Lebanon	Central African Republic, Bangladesh, Madagascar
64 Footwear	2	37.50	37.50		0	China, Canada	
64 Footwear	1	30.70	30.70	488 092	0	Indonesia, TPC, Thailand	
61 Knitted apparel	4	28.90	28.90	47 909	4.41	TPC, Canada, China	Cambodia, Myanmar, Bangladesh
61 Knitted apparel	1	28.62	28.62	195 957	4.37	Costa Rica, Philippines, Mexico	Bangladesh, Haiti, Cambodia
62 Not knitted apparel	1	28.00	28.00	67 629	0.11	Philippines, Indonesia, Republic of Korea	Bangladesh
64 Footwear	1	27.88	27.88	336 616	0	China, Indonesia, TPC	
24 Tobacco	1	26.92	38.89	18 560	2.46	Brazil, Turkey, Argentina	Malawi
61 Knitted apparel	1	26.60	26.60	4 430	26.73	Mexico, Israel, Honduras	Bangladesh, Haiti, Myanmar
64 Footwear	1	26.39	26.39	824 936	0	China, EU, Mexico	Myanmar, Nepal
61 Knitted apparel	1	25.73	25.73	145 767	1.42	Mexico, TPC, EU	Bangladesh, Myanmar, Cambodia, Maldives, Haiti
07 Edible vegetables	1	25.55	25.55	852	0	China, India, EU	
61 Knitted apparel	1	25.50	25.50	293 855	0.26	Mexico, Canada, Dominican Rep.	Bangladesh, Haiti, Cambodia, Myanmar
62 Not knitted apparel	1	25.00	25.00	126 737	0.26	Dominican Rep, Canada. Costa Rica	Bangladesh, Myanmar
64 Footwear	1	25.00	25.00	12 081	0	China. Canada. EU	
61 Knitted apparel	1	24.35	24.35	434 638	3.43	Mexico, Republic of Korea, TPC	Bangladesh, Cambodia, Myanmar Haiti, Nepal
62 Not knitted apparel	1	24.10	24.10	15 801	0.75	Nicaragua, Honduras, Mexico	Myanmar

Source: UNCTAD.

Legend: 20 highest tariff lines facing LDCs after taking into account preferential treatment. The description of the HS6 categories involved is available on request.
Top exporters relates to the covered HS6 categories only and are identified using 1999 trade data.
EU: European Union TPC: Taiwan Province of China

Table IV.5. Japan: Highest ad-valorem tariffs against LDCs, 2000

HS2 category	Number of HS6 cat. covered	LDC tariff (%)	MFN tariff (%)	Total Japan imports in covered HS6 cat.	Share of imports from LDCs (%)	Top exporters in covered HS6 cat	Top LDC exporters in covered HS6 cat
17 Sugar	2	43.27	43.27	0	.		
04 Dairy products	1	40.00	40.00	17 906	0	EU, New Zealand, US	
02 Meat	6	38.50	38.50	2 448 561	0	US, Australia, Canada	
17 Sugar		37.78	37.78	704	0	Korea, US, EU	
04 Dairy products	3	35.00	35.00	0	.	.	.
04 Dairy products	1	33.15	33.15	26 926	0	US; EU, Malaysia	
04 Dairy products	1	32.50	32.50	0	.	.	
17 Sugar	1	30.47	30.47	5 507	0	Thailand, Rep. of Korea, US	
15 Animal/veg. fats and oils	1	29.80	29.80	1 870	0	Singapore, US, Norway	
04 Dairy products	1	29.33	29.33	30	0	EU	
04 Dairy products	1	28.50	28.50	823	0	EU	
02 Meat	2	28.03	28.03	295 038	0	US, Australia, Canada	
20 Preparation of vegetable, fruit	1	27.65	27.65	472	0	US	
04 Dairy products.	1	27.48	27.48	420	0	US, Canada	
22 Beverages	1	27.20	27.20	109	0	S. Afr. custom Union, EU, US	
04 Dairy products.	1	26.83	26.83	3 289	0	Australia, EU	
20 Preparation of vegetable, fruit	1	26.48	26.48	89 245	0	US, EU, China	
20 Preparation of vegetable, fruit	1	25.55	25.55	1 700	0	US, Israel EU	
20 Preparation of vegetable, fruit	2	25.53	25.53	153 188	0	Brazil, US, EU	
04 Dairy products	1	25.50	25.5	3 6449	0.01	China, Argentina, New Zealand	United Republic of Tanzania

Source: UNCTAD.

Legend: 20 highest tariff lines facing LDCs after taking into account preferential treatment. The description of the HS6 categories involved is available on request.
Top exporters relates to the covered HS6 categories only and are identified using 1999 trade data.
EU: European Union US: United States

Table IV.6. European Union: Goods intensively imported from LDCs, 2000

HS6 code	Description	Total European Union imports	Share of LDCs in total European Union imports (%)	MFN tariff (%)	LDC tariff (%)
090500	Vanilla	22 666	84.80	6.00	0
260500	Cobalt ores and concentrates	110 753	83.06	0	0
330126	Essential oils & resinoids	3 281	77.75	1.15	0
130120	Gum Arabic	28 780	77.35	0	0
230500	Residues & waste from the food industry	20 321	76.25	0	0
530310	Vegetable textile fibres	2 276	76.14	0	0
430130	Raw furskins	10 999	72.66	0	0
530710	Vegetable textile fibres	18 075	72.23	0	0
530390	Vegetable textile fibres	253	64.43	0	0
260600	Aluminium ores and concentrates	367 985	63.16	0	0
090700	Cloves	3 075	61.14	8.00	0
560729	Twine, cordage, ropes and cables	2 602	60.26	12.00	0
030333	Fish	5 003	58.56	7.50	0
410310	Raw hides and skins.	3 852	58.07	0	0
150810	Crude oil	115 519	55.67	3.20	0
630510	Sacks and bags	23 209	55.18	3.00	0
121299	Oil seed, oleagi fruits	31 335	53.60	0	0
120300	Oil seed, oleagi fruits	42 742	51.96	0	0
110319	Groats and meal	43	44.19	.	.
530720	Vegetable textile fibres	55 126	44.03	0	0
120720	Cotton seeds	38 576	42.02	0	0
530410	Vegetable textile fibres	25 755	41.93	0	0
710210	Diamonds	225 661	41.92	0	0
030339	Fish	9 450	41.67	11.25	0
030759	Octopus	252 975	39.96	8.00	0
081090	Edible fruits and nuts	107 523	37.02	5.60	0
030270	Livers and roes	5 032	36.86	10.00	0
240310	Tobacco	1 795	36.66	74.90	0
530890	Vegetable textile fibres	2 303	36.56	3.87	0
620530	Not knitted apparel	536 965	35.92	12.00	0

Source: UNCTAD.
Legend: 30 HS6 categories with highest import share from LDCs.
Tariff data refers to ad valorem tariffs only.

Table IV.7. Canada: Goods intensively imported from LDCs, 2000

HS6 code	Description	Total Canada imports	Share of LDCs in total Canada imports (%)	MFN tariff (%)	LDC tariff (%)
251010	Salt, sulphur; earth and stone; Plastering mat.	24 488	99.70	0	0
530720	Vegetable textile fibres	1 230	95.93	10.00	0
090500	Vanilla	2 589	75.90	0	0
530410	Vegetable textile fibres	346	57.23	0	0
283529	Phosphates	3 512	54.81	2.00	0
530710	Vegetable textile fibres	122	42.62	4.00	0
710811	Gold	882	40.70	0	0
531090	Vegetable textile fibres	491	35.44	7.00	0
841011	Hydraulic turbines and water wheels	218	33.03	6.50	0
621420	Not knitted apparel	2 877	32.64	10.25	10.25
630510	Sacks and bags	436	31.19	6.00	0
531010	Vegetable textile fibres	3 821	28.95	0	0
530310	Vegetable textile fibres	431	27.38	0	0
090700	Cloves	401	26.43	1.50	0
330126	Essentials oils	8	25.00	0	0
630520	Sacks and bags	19 966	19.75	19.00	19.00
520100	Cotton	75 737	18.46	0	0
610821	Briefs and panties	30 912	16.82	20.50	20.50
530390	Vegetable textile fibres	110	16.36	0	0
610130	Not knitted apparel	19 184	15.76	20.50	20.50
400251	Latex	192	14.58	0	0
620930	Not knitted apparel	4 338	12.68	20.50	20.50
140190	Vegetable plaiting materials	639	12.68	0	0
400110	Natural rubber latex	4 698	12.24	0	0
620193	Not knitted apparel	106 215	11.83	19.00	19.00
630622	Tents	27 068	11.47	20.50	20.50
030329	Fish	364	11.26	0	0
030349	Fish	582	10.48	0	0
440729	Wood and articles of wood	5 002	9.82	0	0
262030	Ores	35 635	9.63	0	0

Source: UNCTAD.
Legend: 30 HS6 categories with highest import share from LDCs.
Tariff data refers to ad valorem tariffs only.

Table. IV. 8. United States: Goods intensively imported from LDCs, 2000

HS6 code	Description	Total United States imports	Share of LDCs in total United States imports (%)	MFN tariff (%)	LDC tariff (%)
530310	Vegetable textile fibres	1 192	80.79	0	0
530710	Vegetable textile fibres	1 950	78.97	0.90	0
090500	Vanilla	28 214	72.81	0	0
530720	Vegetable textile fibres	4 880	72.42	1.20	0
560710	Twine, cordage, ropes and cables	6 732	65.20	1.60	0
090700	Cloves	2 711	60.60	0	0
140190	Vegetable materials	1 192	60.40	3.80	0
410619	Goat or kid skin leather	3 812	50.05	2.40	0
530390	Vegetable textile fibres	64	50.00	0	0
120799	Oil seed, oleagi fruits	24 400	47.48	0	0
151110	Palm oil and its fractions	63	42.86	0	0
531010	Vegetable textile fibres.	24 440	42.36	0	0
400110	Natural rubber latex	74 044	41.56	0	0
330126	Essentials oils	522	35.25	0	0
260600	Aluminium ores and concentrates	353 874	33.01	0	0
110429	Products of .mill.industry	1 035	31.79	2.70	0
130120	Gum Arabic	22 966	31.02	0	0
410310	Raw hides and skins	814	30.84	0	0
120926	Seeds, fruit and spores	5 985	30.43	0	0
410519	Sheep or lamb skin leather	1 111	30.24	2.00	0
530110	Vegetable textile fibres	252	28.97	0	0
030231	Fish	8 119	28.96	0	0
611231	Not knitted apparel	4 430	26.73	26.60	26.60
810510	Products of Cobalt	243 676	26.28	1.47	0
120720	Cotton seeds	46 824	26.27 .		0
081400	Peel of citrus fruit or melons	941	23.38	0	0
250621	Quartzite	292	22.95	0	0
630510	Sacks and bags	13 222	20.93	0	0
650590	Headgear	810 793	20.81	7.50	7.50
250629	Quartzite	396	20.45	0	0

Source: UNCTAD.
Legend: 30 HS6 categories with highest import share from LDCs.
Tariff data refers to ad valorem tariffs only.

Table IV. 9. Japan: Goods intensively imported from LDCs, 2000

HS6 code	Description	Total Japan imports	Share of LDCs in total Japan imports (%)	MFN tariff (%)	LDC tariff (%)
560729	Twine, cordage, ropes and cables	481	94.59	4.80	0
560721	Twine, cordage, ropes and cables	1 149	92.86	2.40	0
090500	Vanilla	4 033	87.08	0	0
090700	Cloves	1 068	83.71	1.20	0
261590	Ores	2 593	73.93	0	0
410221	Raw skins of sheep or lambs	1 217	68.78	0	0
410429	Leather of bovine or equine animals	53	67.92	16.77	0
130120	Gum Arabic	3 124	65.78	0	0
152190	Animal fats and oils	3 669	57.37	7.53	0
530410	Vegetable textile fibres	1 434	53.63	0	0
530710	Vegetable textile fibres	4 861	50.81	0	0
410410	Leather of bovine or equine animals	9 572	47.14	21.60	0
531010	Vegetable textile fibres	8 517	43.83	12.80	0
030343	Fish	53 655	37.95	3.50	3.50
410620	Goat or kid skin leather	5 725	36.52	15.23	0
630510	Sacks and bags	4 264	35.79	0	0
530720	Vegetable textile fibres	548	35.40	0	0
120740	Sesamum seeds	118 932	33.47	0	0
030332	Flat fish	81	29.63	3.50	3.50
030759	Octopus	395 646	28.80	8.50	5
560710	Twine, cordage, ropes and cables	5 369	28.61	0	0
530310	Vegetable textile fibres	354	28.25	0	0
110610	Products of . mill.industry	19	26.32	13.60	13.60
810510	Products of Cobalt	235 911	25.44	0	0
410421	Leather of bovine or equine animals	1 714	23.51	25.15	0
410439	Leather of bovine or equine animals	9 503	22.79	23.67	0
121110	Liquorice roots	3 735	21.15	0	0
120300	Copra	16 062	19.04	0	0
740311	Cathodes and sections of cathodes	354 479	18.69	1.50	0
071339	Edible vegetables	26 928	17.37	6.50	6.50

Source: UNCTAD.
Legend: 30 HS6 categories with highest import share from LDCs.
Tariff data refers to ad valorem tariffs only.

Table IV.10. European Union: Sectors affected by protection other than ad-valorem tariffs, 2000

HS6 code	Description	Total European Union imports	Share of LDCs in total European Union imports (%)
110319	Groats and meal	43	44.19
170199	Sugars.	77 488	17.56
240120	Tobacco	1 826 080	10.75
240130	Tobacco	54 249	10.52
170310	Cane molasses	145 276	9.96
240110	Tobacco	389 677	8.24
121292	Sugar cane	94	7.45
110620	Products of . mill.industry	562	4.98
170111	Sugars and sugar confectionery	978 033	2.95
110290	Mill prod.	250	2.80
220710	Beverages, spirits and vinegar	43 109	2.74
190300	Tapioca	1 990	2.51
230230	Residues from food industry	2 349	2.34
190240	Couscous	1 161	2.15
020712	Meat and edible meat offal	5 876	2.08
070200	Tomatoes	154 920	0.76
100630	Rice	91 133	0.44
040120	Milk and cream	3 460	0.43
020220	Meat of bovine animals	925	0.32
190540	Bread, pastry, cakes, biscuits	2 449	0.24
110814	Starches	3 546	0.20
110311	Groats and meal	725	0.14
220600	Beverages, spirits and vinegar	15 821	0.12
220840	Rum and tafia	328 990	0.12
100590	Maize	321 825	0.09
020230	Meat of bovine animals	354 786	0.06
071410	Manioc	353 700	0.03
110100	Wheat or meslin flour	3 629	0.03
110220	Maize (corn) flour	6 317	0.03
110430	Products of . mill.industry	3 556	0.03

Source: UNCTAD.
Legend: 30 HS6 categories ranked by import share from LDCs

Table IV.11. Canada: Sectors affected by protection other than ad-valorem tariffs, 2000

HS6 code	Description	Total Canada imports	Share of LDCs in total Canada imports (%)
040620	Cheese and curd	7 037	1.14
170191	Sugars	2 317	0.04
611520	Knitted apparel	2 871	0
110100	Wheat or meslin flour	8 778	0
220710	Beverages, spirits and vinegar	8 852	0
220410	Sparkling wine	67 823	0
070110	Potatoes	2 249	0
110720	Malt	1 670	0
040630	Cheese	13 422	0
220429	Wine	49 412	0
220421	Wine	436 587	0
220430	Wine	592	0
040690	Cheese	94 362	0
611593	Not knitted apparel	11 161	0
611599	Not knitted apparel	1 737	0
611592	Not knitted apparel	41 477	0
040291	Milk and cream	34	0
010592	Live poultry	2 140	0
010593	Live poultry	1 813	0
040299	Milk and cream	222	0
040899	Birds' eggs and egg yolks	1 614	0
070190	Potatoes	57 188	0
170199	Sugars	7 269	0
020725	Meat and edible offal	2	0
020724	Meat and edible offal	704	0
020726	Meat. Of turkeys: -- Cuts and offal, fresh or chilled	3 609	0
110710	Malt	934	0
040210	Milk and cream	1 418	0
110311	Groats and meal	102	0
040610	Fresh cheese	1 813	0

Source: UNCTAD.
Legend: 30 HS6 categories ranked by import share from LDCs.

Table IV. 12. United States: Sectors affected by protection other than ad-valorem tariffs, 2000

HS6 code	Description	Total United States imports	Share of LDCs in total United States imports (%)
611691	Knitted apparel	10 521	8.42
610110	Knitted apparel	1 473	8.28
620323	apparel	657	3.35
610422	Knitted apparel	242	3.31
620423	Not knitted apparel	14 604	3.25
620211	Overcoats, raincoats, car-coats, capes, cloaks	135 852	1.27
610210	Knitted apparel	18 112	0.93
620429	Not knitted apparel	17 338	0.87
630120	Blankets and travelling rugs	11 352	0.54
621520	Not knitted apparel	17 266	0.32
620111	Overcoats, raincoats, car-coats, capes, cloaks	60 888	0.23
610431	Jackets and blazers	11 706	0.01
910211	Clocks and watches and parts thereof.	1 547 530	0
080510	Oranges	93 906	0
080520	Citrus fruit	126 255	0
080540	Grapefruit	1 090	0
200911	Orange juice	317 125	0
200919	Orange juice	13 570	0
200920	Grapefruit juice	1 501	0
510400	Garneted stock of wool or of fine or coarse animal hair	321	0
510510	Carded wool	87	0
510521	Wool and fine or coarse animal hair, carded or combed	143	0
510529	Wool and fine or coarse animal hair, carded or combed	4 611	0
510530	Fine animal hair, carded or combed	394	0
560221	Felt	7 957	0
610311	Suits	2 336	0
610322	Suits	47	0
610323	Suits	52	0
610329	Suits	1	0
610331	Jackets and blazers	1 148	0

Source: UNCTAD.
Legend: 30 HS6 categories ranked by import share from LDCs.

Table V. 13. Japan: Sectors affected by protection other than ad-valorem tariffs, 2000

HS6 code	Description
270900	Petroleum oils and oils
021020	Meat of bovine animals
130231	Mucilage and thickeners derived from vegetable products
150710	Soya-bean oil and its fractions
150790	Soya-bean oil and its fractions
150810	Ground-nut oil and its fractions
150890	Ground-nut oil and its fractions
151211	Sunflower-seed or safflower oil and fractions thereof
151219	Sunflower-seed or safflower oil and fractions thereof
151410	Rape, colza or mustard oil and fractions thereof
151490	Rape, colza or mustard oil and fractions thereof
151521	Maize (corn) oil and its fractions
151529	Maize (corn) oil and its fractions
151550	Sesame oil and its fractions
170111	Sugars and sugar confectionery
170191	Sugars and sugar confectionery
170199	Sugars and sugar confectionery
190211	Pasta
190219	Pasta
190240	Couscous
220820	Spirits
220870	Liqueurs and cordials

Source: UNCTAD.

Note: Imports to Japan in all sectors are zero.

Table IV.14. Major exporters to the United States in 1999: Selected products

(Thousands of dollars)

	Apparel		Knitted apparel		Carpets		Leather products		Tobacco	
Top	**Value**	**Exporter**	**Value**	**Exporter**	**Value**	**Exporter**	**Value**	**Exporter**	**Value**	**Exporter**
1	29 889 198	World	24 667 444	World	1 316 587	World	6 441 097	World	1 250 603	World
2	4 464 461	Mexico	3 335 848	Mexico	366 929	India	3 217 466	China	217 758	Dominican Rep.
3	3 941 615	China	2 285 121	Hong Kong, China	203 059	China	391 508	Italy	182 292	Turkey
4	2 193 718	Hong Kong, China	2 122 535	China	172 994	Canada	383 920	Thailand	147 911	Brazil
5	1 432 511	Dominican Rep.	1 507 750	Honduras	96 666	Pakistan	322 566	Philippines	56 439	Honduras
6	1 341 195	Indonesia	1 234 875	Asia Othr.NS	96 213	Belgium	257 250	Indonesia	55 612	Canada
7	**1 237 888**	**Bangladesh**	1 047 424	Korea, Rep. of	73 413	United Kingdom	254 550	Korea, Rep. of	55 441	Argentina
8	1 228 090	India	957 175	El Salvador	52 316	Turkey	237 834	Mexico	**52 992**	**Malawi**
9	1 170 830	Korea, Rep. of	921 589	Dominican Rep.	44 754	Egypt	214 684	India	50 452	Greece
10	1 117 628	Philippines	862 659	Thailand	27 386	Netherlands	186 095	Asia Othr.NS	34 998	Bulgaria
11	1 069 120	Italy	811 555	Canada	**27 206**	**Nepal**	154 759	France, Monaco	32 988	Spain
12	1 005 213	Sri Lanka	753 071	Philippines	18 209	Ireland	119 616	Sri Lanka	32 790	Japan
13	800 977	Canada	660 710	Macau	17 885	Mexico	93 558	Hong Kong, China	30 039	FYROM
14	751 918	Thailand	550 875	Pakistan	17 131	France, Monaco	87 513	Pakistan	28 952	Mexico
15	734 947	Guatemala	543 916	Turkey	12 366	Spain	79 414	Canada	23 584	Zimbabwe
16	733 753	Honduras	535 695	Guatemala	10 495	Thailand	54 373	Dominican Rep.	21 198	Indonesia
17	729 767	Asia Othr.NS	472 299	India	10 261	Italy	43 295	Costa Rica	19 159	Thailand
18	449 669	Costa Rica	458 604	Indonesia	7 864	Germany	37 564	United Kingdom	17 151	United Kingdom
19	404 545	Malaysia	452 869	Italy	4 870	Korea, Rep. of	32 372	United Arab Emirates	16 634	Italy
20	403 468	El Salvador	**393 141**	**Bangladesh**	4 832	Romania	29 317	Germany	13 962	Guatemala
21	383 339	Macau	389 451	Costa Rica	4 533	Bulgaria	27 030	Spain	13 606	Switz./Liecht.
22	**354 072**	**Cambodia**	385 452	Malaysia	4 400	Australia	26 672	Turkey	12 253	India
23	332 832	Turkey	352 715	Israel	4 269	Saudi Arabia	26 201	Colombia	11 210	Jamaica
24	251 158	Pakistan	327 668	Sri Lanka	4 037	New Zealand	23 888	Argentina	11 077	Nicaragua
25	239 871	Colombia	304 112	Peru	3 528	Philippines	**19 157**	**Bangladesh**	9 767	Germany
26	231 213	United Arab Emirates	290 427	Jamaica	3 039	Greece	17 896	Switzerland	9 697	China
27	224 481	Nicaragua	**271 137**	**Cambodia**	3 018	Denmark	12 293	Malaysia	9 351	Philippines
28	199 562	Egypt	270 458	Singapore	2 981	Switz./Liecht.	12 239	Japan	9 350	France, Monaco
29	186 717	Mauritius	**215 083**	**Haiti**	2 272	S.Afr. Custom Union	8 673	Brazil	9 176	Dominica
30	166 912	France, Monaco	150 734	Egypt	2 094	Portugal	**7 189**	**Myanmar**	8 805	Netherlands

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Table IV.14. Major Exporters to the United States in 1999: Selected Products (concluded)
(Thousands of dollars)

	Apparel		Knitted apparel		Carpets		Leather products		Tobacco	
Top	Value	Exporter	Value	Exporter	Value	Exporter	Value	Exporter	Value	Exporter
31	**130 597**	**Nepal**	143 958	Colombia	1 977	Brazil	6 758	Guatemala	6 702	Ecuador
32	125 526	Oman	143 568	United Kingdom	1 879	Japan	6 097	El Salvador	5 698	Lebanon
33	124 178	S.Afr. Cus. Union	130 582	Australia	1 848	Czech Rep.	3 565	Asia West NS	4 959	Korea, Rep. of
34	97 404	Qatar	128 705	S.Afr.Cus.Un	1 518	Israel	2 901	Australia	4 598	Denmark
35	84 589	Israel	**128 368**	**Myanmar**	1 149	Sweden	2 831	Macau	4 549	Belgium
36	83 515	Bahrain	124 926	Brunei Darussalam	1 055	Morocco	2 438	Belgium	3 767	Costa Rica
37	79 496	United Kingdom	84 608	United Arab Emirates	991	Indonesia	2 393	Ireland	3 666	Cameroon
38	76 323	Russian Fed.	69 617	Fiji	785	Jordan	2 362	Viet Nam	**3 246**	**United Rep. of Tanzania**
39	73 732	Morocco	62 634	Russian Fed.	763	Guatemala	2 342	Israel	3 235	Sweden
40	73 572	Singapore	59 564	Nicaragua	**701**	**Bangladesh**	2 302	Hungary	**2 480**	**Cent. Afr. Rep.**
41	**72 019**	**Myanmar**	59 260	Mauritius	516	Finland	2 105	Honduras	2 184	Venezuela
42	61 031	Germany	54 679	France, Monaco	512	Asia Othr.NS	2 084	Tokelau	1 766	Colombia
43	58 154	Jamaica	42 050	Romania	442	Russian Fed	1 764	S.Afr. Cus. Union	1 191	Malaysia
44	52 410	TFYR Macedna	34 490	Portugal	318	Sri Lanka	1 635	Paraguay	1 064	Paraguay
45	49 001	Romania	33 900	Bulgaria	297	Rep. of Moldova	1 606	Singapore	1 036	Untd Arab Em
46	**47 321**	**Haiti**	**33 180**	**Maldives**	290	Austria	1 392	Denmark	704	Neth.Antiles
47	42 649	Portugal	26 815	Oman	275	Hungary	1 379	Slovenia	621	China HK SAR
48	41 833	Kenya	25 118	Mongolia	**214**	**Afghanistan**	1 336	Netherlands	418	Kenya
49	41 793	Bulgaria	24 117	Japan	171	Hong Kong, China	1 315	New Zealand	402	Panama
50	40 395	Ukraine	23 383	Qatar	167	Oman	**1 227**	**Haiti**	391	Cyprus
	32 174	**Madagascar (top 56)**	**19 031**	**Nepal (top 53)**			**477**	**Nepal (top 58)**	**278**	**Bangladesh (top 55)**
	22 845	**Maldives (top 61)**	**16 494**	**Madagascar (top 56)**			**307**	**Cambodia (top 63)**	**209**	**Madagascar (top 58)**
	4 366	**Lao People's Dem. Rep. (top 85)**	**8 106**	**Lao People's Dem. Rep. (top 69)**					**145**	**Zambia (top 60)**
	2 833	**United Rep. of Tanzania (top 92)**	**200**	**Malawi (top 111)**						
	1 279	**Malawi (top 104)**	**102**	**Sierra Leone (top 118)**						
	101	**Mali (top 124)**								

Table IV.15. Major exporters to Canada in 1999: Selected products

(Thousands of dollars)

	Apparel & clothing knitted or crocheted		Apparel and clothing, not knitted or crocheted		Footwear, gaiters and the like: parts of such articles		Other made up textile articles; sets; worn clothing etc.		Carpets	
	Value	**Exporter**	**Value**	**Exporter**	**Value**	**Exporter**	**Value**	**Exporter**	**Value**	**Exporter**
1	1 335 334	World	1 616 004	World	979 923	World	503 374	World	506 795	World
2	265 175	United States,PR,USVI	427 878	China	453 647	China	286 398	US,PR,USVI	397 720	United States,PR,USVI
3	197 266	Hong Kong, China	231 537	United States, PR,USVI	127 935	Italy	80 368	China	29 670	Mexico
4	172 981	China	128 115	Hong Kong, China	67 943	United States,PR,USVI	23 519	India	17 285	India
5	108 630	India	100 713	Korea, Rep. of	48 244	Viet Nam	22 020	Pakistan	15 663	Iran
6	70 759	Korea, Rep. of	97 837	India	38 794	Brazil	14 311	Brazil	7 860	China
7	65 320	Asia Othr.NS	72 457	Italy	36 236	Indonesia	7 851	Portugal	7 288	Belgium
8	45 265	Thailand	62 646	Mexico	30 075	Spain	6 913	Asia Othr.NS	4 589	Pakistan
9	44 042	Mexico	58 871	Indonesia	20 929	Mexico	6 511	Mexico	2 866	Netherlands
10	**41 003**	**Bangladesh**	**42 650**	**Bangladesh**	18 602	United Kingdom	4 020	Korea, Rep. of	2 746	Egypt
11	34 319	Malaysia	41 480	Thailand	16 289	Portugal	**3 946**	**Haiti**	2 621	United Kingdom
12	30 908	Italy	24 720	Philippines	16 223	Thailand	3 906	Italy	2 470	Australia
13	24 932	Indonesia	24 178	Sri Lanka	11 320	India	3 899	Dominican Rep.	2 406	S.Afr. Cus. Union
14	24 039	Philippines	23 966	Asia Othr.NS	10 844	Germany	3 813	Spain	1 777	Spec Cats
15	23 643	Pakistan	23 658	Pakistan	10 835	Romania	**3 606**	**Bangladesh**	1 645	Thailand
16	18 594	Honduras	18 817	France, Monaco	10 441	Korea, Rep. of	3 385	Indonesia	1 290	France, Monaco
17	17 459	Macau	18 693	Viet Nam	9 296	Asia Othr.NS	3 356	Viet Nam	1 145	Turkey
18	12 111	Turkey	18 685	Dominican Rep.	7 211	Hong Kong, China	2 978	United Kingdom	1 101	New Zealand
19	10 287	US Msc.Pac.I	18 197	Germany	6 156	France, Monaco	2 676	Turkey	**1 005**	**Nepal**
20	9 751	France, Monac	18 043	Malaysia	6 093	Macau	2 249	Sri Lanka	880	Saudi Arabia
21	9 528	Sri Lanka	17 624	Turkey	2 447	Sri Lanka	2 101	Thailand	707	Germany
22	**9 021**	**Myanmar**	13 128	Macau	2 231	Czech Rep.	1 398	Germany	648	Denmark
23	8 405	Singapore	7 771	Honduras	2 063	Dominican Rep.	1 312	France, Monaco	494	Greece
24	7 872	El Salvador	6 894	Portugal	1 959	Israel	1 010	Netherlands	353	Ireland
25	7 169	Peru	6 718	Costa Rica	1 664	Malaysia	946	Japan	311	Italy
26	6 751	Egypt	6 644	United Kingdom	1 505	Costa Rica	905	Hong Kong, China	278	Bulgaria
27	6 550	Mauritius	6 590	Mauritius	1 500	Switz./Liecht.	677	Malaysia	224	Spain
28	6 440	Israel	6 241	Romania	1 487	Hungary	654	Egypt	216	Japan
29	4 377	United Kingdom	**5 566**	**Cambodia**	1 419	Denmark	645	Romania	182	Romania
30	4 196	Portugal	5 178	Bulgaria	1 317	Netherlands	633	Sweden	136	Switz./Liecht.

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Table IV.15. Major exporters to Canada in 1999: Selected products (concluded)
(Thousands of dollars)

	Apparel & clothing knitted or crocheted		Apparel and clothing, not knitted or crocheted		Footwear, gaiters and the like: parts of such articles		Other made up textile articles; sets; worn clothing etc.		Carpets	
	Value	**Exporter**	**Value**	**Exporter**	**Value**	**Exporter**	**Value**	**Exporter**	**Value**	**Exporter**
31	3 984	Dominican Rep.	4 866	Singapore	1 298	Slovakia	629	Philippines	**122**	**Afghanistan**
32	3 677	Guatemala	4 524	Spec Cats	1 108	Morocco	569	Czech Rep	108	Poland
33	3 598	Germany	4 239	Poland	1 090	Slovenia	566	Colombia	107	Sweden
34	2 451	Costa Rica	3 684	Nicaragua	1 038	Pakistan	526	Israel	92	Portugal
35	2 427	Colombia	3 361	United Arab Emirates	1 021	Poland	506	Spec Cats	85	Czech Rep
36	**1 990**	**Haiti**	3 044	Guatemala	1 001	Bulgaria	489	Russian Fed	79	United Arab Emirates
37	1 982	Greece	**2 965**	**Maldives**	883	TFYR Macedonia	455	El Salvador	65	Israel
38	1 875	United Arab Emirates	2 917	Hungary	823	Australia	446	Poland	54	Morocco
39	1 853	Viet Nam	2 825	Greece	800	Estonia	412	Turks,Caicos	53	Philippines
40	1 697	Hungary	2 672	Egypt	769	Austria	371	Lithuania	52	Korea Rep.
41	1 613	Jamaica	**2 653**	**Myanmar**	656	Finland	278	Austria	45	Asia Othr.NS
42	1 565	Switz./Liecht.	2 379	Russian Fed.	546	Philippines	233	Saudi Arabia	42	Brazil
43	1 533	Austria	2 258	Spain	483	Bosnia Herzegovina	168	Australia	41	Norway,Sb,JM
44	**1 517**	**Cambodia**	2 074	Denmark	430	Japan	166	Switz./Liecht.	**30**	**Bangladesh**
45	1 114	Australia	2 053	Japan	383	Tunisia	160	Belgium	30	Rep. of Moldova
46	909	Spec Cats	2 020	Slovenia	301	Cyprus	148	Honduras	26	Russian Fed.
47	894	Nicaragua	1 905	Czech Rep.	282	Chile	112	Ireland	20	Viet Nam
48	882	Denmark	1 848	El Salvador	**280**	**Cambodia**	107	Lebanon	17	Armenia
49	**871**	**Lao P's. Dem. Rep.**	1 839	Switz./Liecht	249	New Zealand	103	Bulgaria	16	Indonesia
50	758	Syria	**1 789**	**Nepal**	**207**	**Myanmar**	97	Greece	16	Sri Lanka
51	734	Spain	1 591	S. Afr. Cus. Union	196	Belgium	77	Estonia	14	Finland
52	**481**	**Madagascar (top 62)**	**999**	**Lao P's. Dem. Rep. (top 62)**	**26**	**Cent.Afr.Rep. (top 72)**				
	404	**Nepal (top 64)**	**275**	**Madagascar (top 80)**	**23**	**Senegal (top 73)**				
					15	**Bangladesh (top 75)**				

Table IV.16. Major exporters to Japan in 1999: Selected products

(Thousands of dollars)

	Meat and meat products		Fish & crustacean		Dairy products		Milled products	
	Value	Exporter	Value	Exporter	Value	Exporter	Value	Exporter
	7 087 393	World	12 373 679	World	780 726	World	321 116	World
1	2 866 498	US,PR,USVI	1 422 802	USA,PR,USVI	220 422	Australia	75 972	Canada
2	1 046 616	Australia	1 168 784	Russian Fed.	151 505	New Zealand	53 591	Australia
3	820 317	Denmark	992 832	China	73 002	USA,PR,USVI	38 097	US,PR,USVI
4	550 670	Canada	824 267	Korea, Rep. of	50 162	Denmark	37 402	United Kingdom
5	415 580	China	752 527	Indonesia	46 130	Netherlands	24 367	Germany
6	385 638	Korea, Rep. of	720 194	Asia Othr.NS	44 196	France, Monaco	23 046	France, Monaco
7	262 946	Thailand	684 790	Norway,Sb,JM	36 083	China	13 984	Thailand
8	176 486	Mexico	676 195	Thailand	23 904	Germany	12 692	Netherlands
9	174 536	Brazil	628 106	Chile	21 592	Italy	11 755	Belgium
10	100 411	New Zealand	542 335	India	17 921	Norway,Sb,JM	6 640	Indonesia
11	69 784	Netherlands	508 232	Canada	15 986	Canada	5 870	Denmark
12	62 339	France, Monaco	397 457	Australia	11 173	Ukraine	3 630	Malaysia
13	45 916	Ireland	361 808	Viet Nam	9 334	Lithuania	3 486	New Zealand
14	25 625	United Kingdom	265 052	Morocco	8 426	Hungary	3 075	China
15	22 296	Chile	189 287	Philippines	6 557	Russian Fed.	2 669	Ireland
16	8 952	Hungary	175 891	Spain	4 796	Belgium	1 718	Czech Rep.
17	8 920	Argentina	135 764	New Zealand	4 722	Finland	790	Korea, Rep. of
18	7 964	Italy	134 417	Iceland	4 347	Poland	780	Spain
19	4 887	Germany	**113 193**	**Mauritania**	4 315	United Kingdom	450	Philippines
20	4 569	Asia Othr.NS	107 538	Argentina	3 601	Belarus	387	Finland
21	4 559	Uruguay	100 283	Greenland	3 216	Ireland	244	Viet Nam
22	4 282	Indonesia	96 713	Honduras	3 215	Thailand	125	Brazil
23	3 250	Belgium	88 665	Malaysia	3 131	Argentina	89	Panama
24	2 863	Sweden	75 534	Belize	2 883	Switz./.Liecht.	71	Anguilla
25	2 770	Israel	74 858	Ecuador	1 422	Brazil	64	Italy
26	**1 715**	**Vanuatu**	71 731	Korea, Dem. P's Rep.	1 196	Austria	23	Ukraine
27	1 528	Finland	71 674	Singapore	1 125	Asia Othr.NS	23	Asia Othr.NS
28	838	Iceland	61 532	Denmark	1 090	Czech Rep	22	Ecuador
29	684	Malaysia	49 355	Netherlands	926	Malaysia	16	Austria
30	647	Austria	**48 940**	**Eq.Guinea**	887	Singapore	**13**	**Myanmar**
31	640	Ecuador	**46 583**	**Myanmar**	547	Estonia	5	India
32	433	Viet Nam	**44 574**	**Bangladesh**	514	S.Afr.Cus. Union	4	Ghana
33	426	Switz./Liecht.	38 025	Hong Kong, China	434	Indonesia	4	Peru
34	405	S.Afr. Cus. Union	34 694	France, Monaco	404	Sweden	4	Mexico
35	396	Norway,Sb,JM	30 500	US Msc.Pac.I	257	Israel	3	Colombia
36	302	Panama	28 953	Sri Lanka	254	Slovakia	3	Singapore
37	103	Kenya	**28 290**	**Solomon Is**	165	Hong Kong, China	2	Pakistan
38	96	Oman	28 163	S.Afr.Cus. Union	161	Panama		
39	88	Poland	24 707	Ireland	142	Korea, Rep. of		
40	85	Zimbabwe	24 251	Brazil	112	Latvia		
41	61	Costa Rica	23 749	Cuba	102	Viet Nam		
42	51	Ukraine	23 621	Mexico	98	Spain		
43	42	Spain	23 272	Italy	82	Mexico		
44	41	Belize	22 270	Suriname	67	Romania		
45	37	Cameroon	**20 939**	**Madagascar**	64	India		
46	32	Russian Fed.	18 765	Peru	29	Greece		
47	27	Albania	**18 358**	**Gambia**	8	New Caledonia		
48	19	Neth.Antiles	17 874	Pakistan	8	Cyprus		
49	16	Mongolia	**17 797**	**Mozambique**	8	Lebanon		
50	6	Bulgaria	17 766	Palau	**5**	**United Rep. of Tanzania**		
			15 304	**Tanzania (top 58)**				
			7 304	**Uganda (top71)**				
			7 227	**Cambodia (top 72)**				
			5 669	**Senegal (top 78)**				
			4 790	**Kiribati (top 83)**				
			4 196	**Vanuatu (top 85)**				
			3 639	**Maldives (top 89)**				
			1 679	**Guinea (top 94)**				
			1 656	**Yemen (top 95)**				
			499	**Sierra Leone (top 106)**				
			225	**Angola (top 109)**				

Table IV.17. Major exporters to the European Union in 1999: Selected products

(Thousands of dollars)

	Bananas		Rice		Sugar		Rum	
	Value	Country	Value	Country	Value	Country	Value	Country
1	414 842	Costa Rica	142 660	United States	297 162	Mauritius	242 722	Bahamas
2	391 779	Ecuador	104 860	India	129 252	Fiji	18 217	United States
3	318 405	Colombia	78 494	Thailand	123 681	Guyana	13 713	Jamaica
4	277 594	Panama	44 094	Pakistan	95 857	Swaziland	12 857	Trinidad and Tobago
5	107 484	Cote d'Ivoire	38 307	Guyana	90 587	Jamaica	11 380	Venezuela
6	105 500	Cameroon	10 444	Australia	37 349	Zimbabwe	10 529	Cuba
7	53 287	Saint Lucia	8 600	Suriname	31 574	Belize	4 626	Barbados
8	42 050	Jamaica	5 801	Aruba	31 477	Trinidad and Tobago	4 389	Guyana
9	41 342	Honduras	2 702	Uruguay	30 532	Cuba	4 068	Dominican Republic
10	37 158	Belize	2 580	Netherlands Antilles	28 587	Barbados	2 074	Brazil
11	31 338	Venezuela	1 965	Egypt	17 502	***Malawi***	1 177	Panama
12	30 726	Saint Vincent & Grenadines	1 568	Taiwan	14 616	Brazil	670	Mexico
13	27 776	Suriname	425	***Madagascar***	10 806	Congo	376	S.Afr.Custom Union
14	23 248	Dominican Republic	346	China	9 675	Saint Kitts-Nevis	374	Saint Lucia
15	22 797	Dominica	341	Japan	6 826	***U.Rp.Tanzania***	232	Australia
16	21 691	Guatemala	297	Israel	5 349	Cote d'Ivoire	227	***Comoros***
17	10 826	Nicaragua	281	Bahrain	4 853	India	219	Nicaragua
18	7 498	Mexico	248	Other Asia	2 821	***Madagascar***	200	Colombia
19	2 140	Brazil	213	Sri Lanka	2 480	Paraguay	159	***Haiti***
20	1 629	Ghana	210	Brazil	2 354	Netherlands Antilles	153	Saint Kitts-Nevis
21	643	United States	174	Argentina	1 768	United States	106	Morocco
22	595	Thailand	172	Switzerland	1 475	***Zambia***	96	Guatemala
23	501	Grenada	82	Canada	1 051	El Salvador	50	Greenland
24	299	Israel	61	Turkey	650	Antigua, Barbuda	36	Turkey
25	224	**???**	59	Saint Vincent &Grenadines	330	Costa Rica	35	Japan
26	211	Philippines	31	Jordan	272	***Myanmar***	30	India
27	144	***Rwanda***	30	Cyprus	272	Philippines	25	Turkmenistan
28	105	***Uganda***	30	Ghana	175	Ecuador	22	Suriname
29	80	Iceland	22	Iran	114	China	22	Switzerland
30	61	***Guinea***	21	Mauritius	107	Colombia	22	Thailand
31	38	Kenya	21	Russian Federation	93	Tunisia	22	United States Virgin Isl.
32	36	India	19	Philippines	49	Slovakia Republic	20	Czech Republic
33	33	Sri Lanka	15	Indonesia	37	Sri Lanka	20	Norway
34	25	Netherlands Antilles	15	Singapore	26	Guatemala	19	Ghana
35	22	Egypt	12	***Myanmar***	21	S.Afr.Custom Union	19	Philippines
36	14	Estonia	12	United Arab Emirates	17	Czech Republic	11	Dominica
37	11	***Cape Verde***	9	Slovenia	17	Pakistan	11	Slovakia
38	11	Nigeria	6	Norway	17	Singapore	8	***Gambia***
39	10	Switzerland	5	Ecuador	15	Switzerland	7	***Cape Verde***
40	7	Canada	5	Korea, Rep. of	12	Hong Kong	7	***Guinea***
41	7	***Togo***	4	Bangladesh	6	Argentina	5	Faeroe Islands
42	6	Malaysia	2	Peru	6	Brunei Darussalam	4	Chile
43	5	***Burundi***	1	Hong Kong	2	Israel	4	Lebanon
44	4	***Equatorial Guinea***	1	Kuwait	1	Mexico	4	Mauritius
45	3	Saint Kitts-Nevis	1	Lebanon			3	Cyprus
46	1	Indonesia	1	***Maldives***			3	Saint Pierre and Miquelon
47	1	Korea, Republic of					1	Bolivia
48	1	Tunisia					1	Ecuador
49							1	Kenya
50							1	Oman

Table IV.18. Sensitive sectors

	Agriculture and Food	Textiles, clothing and other manufactures
European Union	Edible Fruits, Edible Vegetables, Cereals, Sugar, Tobacco	
Canada	Sugar, Dairy Products, Meat Products	Art. of Apparel, Footwear, Special Woven Fabrics, Tents, Furniture
United States	Tobacco	Art. of Apparel, Swimwear, Headgear
Japan	Fish, Edible Vegetables, Sugar, Dairy Products, Meat Products, Preparation of Vegetables and Fruits, Animal Oils and Fats, Paddy and Processed Rice	

Source: UNCTAD TRAINS and the UN Comtrade database (tables IV.2-IV.13).

Table IV.19. LDC competitors in sensitive sectors

	OECD	Non-OECD
European Union	Australia, United States, Canada, Turkey	Morocco, Tunisia, Egypt, Saudi Arabia, Argentina, Chile, Israel, Pakistan, India
Canada	United States, European Union, New Zealand	Hong Kong, China, Indonesia, Viet Nam, India, Virgin Islands, Taiwan Province of China
United States	European Union, Turkey, Mexico, Canada, Korea	Venezuela, Brazil, Thailand, Lebanon, China, Costa Rica, Philippines, Indonesia, Argentina, Honduras, Dominican Rep., Nicaragua, Taiwan Province of China
Japan	United States; European Union, Australia, Canada, New Zealand	Argentina, China, SACU, Brazil, Thailand, Singapore

Source: UNCTAD TRAINS and the UN Comtrade database (tables IV.2-IV.13.).

CHAPTER V

PERSPECTIVES FROM BANGLADESH

A. Introduction

The issue of duty-free access to developed country markets and more specifically to the Quad markets, has dominated the trade discourse in LDCs such as Bangladesh for quite some time. The main reason for this is that Bangladesh is now a predominantly trading country rather than predominantly an aid-recipient country. As the spokes-country in the WTO for the Group of LDCs, Bangladesh's policy makers have vigorously pursued the issue of zero-quota, zero-tariff market access in all the three Ministerial Meetings of the WTO. This was one of the major concessions sought by Bangladesh, on behalf of LDCs, during the preparations for the Seattle Ministerial Meeting. As a matter of fact, many LDCs have been arguing that such enhanced market access from Quad countries, who account for 70 per cent of their exports, should be considered as a non-negotiable demand for any new round of trade negotiations to be initiated under the auspices of the WTO. The draft proposal submitted by the European Union at the Seattle Ministerial Meeting did indeed contain a proposal to this effect. All the LDCs supported such a move, as is seen from the draft proposals they submitted during the preparatory phase of the Seattle Meeting. As is well known, the meeting in Seattle did not produce an outcome. The frustration of the Asia-Pacific LDCs such as Bangladesh was also accentuated by the United States initiative to allow the 33 African and Caribbean countries NAFTA-Parity with duty-free, quota-free access to the United States market (see chapter II).

There are a number of reasons for Bangladesh's interest in the EU-EBA. Firstly, the European Union is the dominant trading partner of Bangladesh, accounting for 44 per cent of its total exports in 2000; in contrast, the share of the United States was about 40 per cent, Canada 1.9 per cent and Japan 1.7 per cent during the same period.[1] Thus, any initiative to facilitate market access

in the European Union was bound to be of interest to Bangladesh. Secondly, the initiative gives Bangladesh a high degree of predictability in accessing the preferential treatment already enjoyed prior to the EBA initiative. Bangladesh is currently able to access preferential treatment in the European Union market under the EC GSP scheme for all current exports, subject to conformity with EC Rules of Origin (RoO). Bangladeshi exports are also allowed quota-free entry into the European Union market. Therefore EU-EBA was considered a step forward, in the right direction, in the sense that it now gives secured market access to Bangladesh's exports to the European Union market. Thirdly, the current proposal goes beyond all previous commitments by EC in that it proposes to grant unrestricted duty-free access to all products except arms to the LDCs.[2] The existing preferential regime still excludes about 10 per cent of the 10,500 tariff lines in the Community's tariff schedule and 3 per cent of trade flows from LDCs. From a forward looking perspective, the inclusion of these items were of interest to Bangladesh, in the context of structural changes, especially within the agriculture sector. The expectation is that from a dynamic perspective the initiative will create opportunities for a more diversified access for Bangladeshi products in the European Union market. Fourthly, in June 2000 the European Union signed an agreement in Cotonou with African, Caribbean and Pacific (ACP) countries, triggering a process which ensured free access for "essentially all" products from the ACP countries.[3] As a matter of fact, Bangladesh was the most important LDC player left out of this important initiative. The EU-EBA was seen in Bangladesh as a corrective measure in this context. Fifthly, it is widely believed, that EU-EBA will put moral pressure on the United States to extend similar market access to the LDCs, including Bangladesh, which were not covered by United States TDA 2000 (see chapter II). Sixthly, and this point is of critical importance to Bangladesh, EU EBA initiative, as articulated by Mr. Lamy, can be seen as a concrete complementary step toward trade related capacity-building in the LDCs.

What exactly in concrete terms the initiative will mean by way of enhanced and effectively realized market access for the LDCs will of course vary from country to country depending on trade patterns, supply capacities, as well as on the complementary steps to enhance the capacities of the LDCs to access the European Union markets. This would also critically hinge on whether a static or a dynamic perspective is taken, because many of the products of interest to LDCs such as Bangladesh may not be currently tradable, at least in the European Union markets, because of the erstwhile protectionist import regimes. From a dynamic perspective, translating potential market opportunities into realized opportunities will also depend on the ability of putting in place supply capacities and addressing supply-side bottlenecks by LDCs themselves. There is a need to identify the constraining factors and design appropriate modalities towards this translation.

In the above context, this chapter seeks to explore a number of issues. Section B analyzes the trends and the dynamics of Bangladesh's export performance to the European Union and also analyzes the structural changes in the export basket of Bangladesh to European Union in order to situate the country's export sector vis-à-vis the possible implications originating from the EBA. Section C analyzes the possible implications of the EU-EBA for Bangladesh's export sector and looks at factors which are likely to constrain market access into the European Union. Section D identifies some of the complementary policy initiatives which could raise the effectiveness of the EU-EBA initiative in terms of raising its efficacy in the context of Bangladesh.

B. Export structure

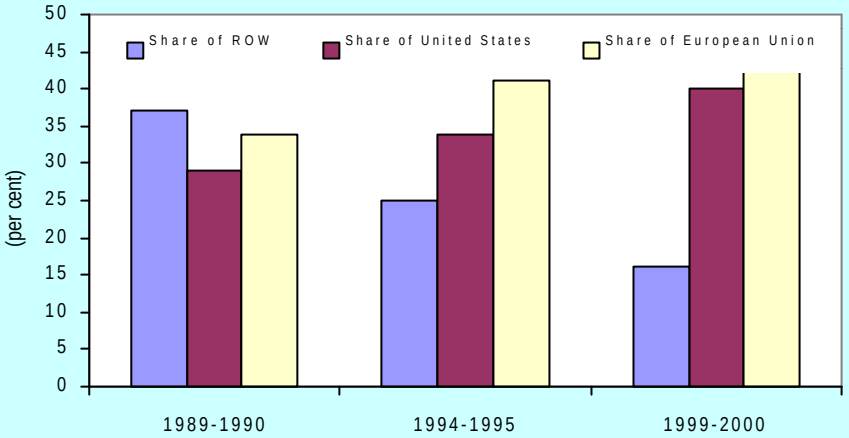
In order to grasp the full relevance of the EU EBA initiative for Bangladesh's current and also future export sector performance, it is important to look at the dynamics of Bangladesh's ex-

ports to the European Union market and the structural changes in the country's exports to the community countries in the recent past.

1. Export dynamics

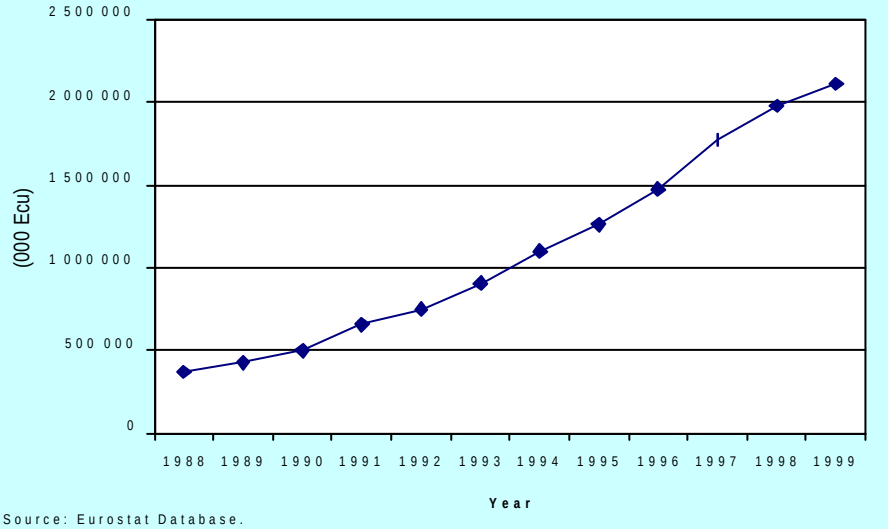
European Union countries have traditionally been important trading partners of Bangladesh, not least because of the economic linkages established historically during the colonial period, between the metropole – United Kingdom and the colony – India. This linkage continued during the Pakistan era (1947-71) and also subsequently during the post-independence period of 1971 and onward. The tructure, volume, value and destination of exports within the European Union, has changed over the last decade.

Figure V.1. Distribution of Bangladesh exports, 1989-1990, 1994-1995, 1999-2000



Bangladesh's traditional exports to European Union countries consisted of raw jute, jute goods and tea. As Bangladesh's export-basket changed from jute-centric to rarely made garment (RMG)-centric and from primary manufacturing,[4] so has the structure of its exports to the European Union. In terms of destination, exports within the Community countries also underwent important changes; although the United Kingdom remained a major export destination, new destinations, most notably Germany, France and Netherlands have evolved to become important markets for Bangladeshi products in recent years.[5]

Figure V.2. Total exports of Bangladesh to the European Union market, 1988-1999



Source: Eurostat Database.

Bangladesh's exports to European Union registered quite robust growth throughout the 1990s. The European Union is currently the most important destination for Bangladeshi products in the global market. This transformation is clearly discernible from figure V.1. The European Union share in total exports from Bangladesh has increased from 35 per cent in 1990 to 41 per cent in 1995, and 44 per cent in 1999.

In 1990, exports to the European Union was €501.1 million; by 1995 exports increased to €1,259.8 million and in 1999 reached €2,108.9 million – an increase of 4.2 times in about a decade, growing at an annual average rate of 35.7 per cent (figure V.2). This growing export value is also reflected in the growing share of Bangladesh as a percentage of total imports by the European Union. Bangladesh's share in this market has gone up from 0.04 per cent in 1990 to 0.11 per cent in 1999, a 2.8 fold increase in the span of only a decade (table V.1).

Table V.1. Bangladesh's relative export performance, 1988-1999

Indicators	1988	1990	1995	1999
Total exports to European Union (€ million)	370.9	501.1	1 259.8	2 108.8
World exports to European Union (€ million)	928 611.4	1 124 992.1	1 480 193.9	1 886 766.3
Share of European Union imports (per cent))	***0.04***	***0.04***	***0.09***	***0.11***
Total exports to world ($ million)	1 184.8	1 511.7	3 464.8	5 304.1
European Union's share of total exports (per cent)	32.7	33.6	41.2	46.4

Source: Estimated from Eurostat Database; Export Promotion Bureau of Bangladesh, Annual Reports for various years.

2. Changes in export structure

As a result of the structural shifts in the export capacities within Bangladesh, there has also been corresponding changes in the composition of exports to the European Union over recent years. Table V.2 shows the structure of Bangladesh's exports to the European Union at the two-digit level, that constitutes over 98 per cent of Bangladesh's total exports to the European Union market.

Although exports to the European Union remain highly concentrated, the relative share of goods has changed over time. There have also been important changes within the broad categories of exports at the two-digit level. In 1990 the combined share of categories 61 and 62 (woven, and subsequently knit RMG), which had already started making substantial inroads into European Union

Table V.2. Structure of Bangladesh's exports

	1990		1995		1999	
Products/Periods	**Values**	**(%)**	**Values**	**(%)**	**Values**	**(%)**
Apparel and clothing, knitted or crocheted (61)	65 504	13.4	361 561	29.3	884 306	42.6
Apparel and clothing, not knitted or crocheted (62)	170 319	34.9	605 330	49.1	881 308	42.5
Fish and crutaceans (03)	57 498	11.8	93 376	7.6	109 696	5.3
Raw hides and skins (41)	101 133	20.7	63 366	5.1	49 350	2.4
Other vegetables, textile fibres; paper yarn and woven fabrics of paper yarn (53)	62 245	12.8	62 460	5.1	47 346	2.3
Other made-up textile articles (63)	26 957	5.5	20 590	1.7	46 859	2.3
Footwear (64)	1 472	0.3	12 751	1.0	37 300	1.8
Ceramic products (69	1 771	0.4	4 505	0.4	7 683	0.4
Vegetables, certain roots and tubers (07)	298	0.1	5 005	0.4	6 875	0.3
Article of leather (42)	451	0.1	4 511	0.4	3 638	0.2
Total	487 648	100%	1 233 455	100%	2 074 361	100%
Total to EU	501 084		1 259 800		2 108 800	
Share(%) of the top 10 categories	***97.3***		***97.9***		***98.4***	

Source: Estimated from Eurostat Database.

markets, was less than 50 per cent; by 1999 the combined share of knit and woven RMG had climbed to more than 85 per cent of the total exports to the European Union. In 1990 fish, leather and jute fibres constituted more than 45 per cent of total exports to the EU; by 1999 the share of these categories had fallen to about 10 per cent. Exports of raw hides and other processed primary products had fallen from €163.3 million in 1990 to €96.6 million in 1999; however, exports of fish, in absolute terms, increased from €57.5 million to €109.7 million over the corresponding period.

Thus, the structure of Bangladesh's exports to European Union, as it currently stands, shows a high degree of concentration toward apparel and clothing. Yet another important development is that within the apparel categories, there is a shift toward the export of knit-RMG (HS code 61) relative to woven-RMG (HS code 62). The relative share of these two within the RMG has changed from 27.7:72.3 to 50:50 between 1990 and 1999 (table V.2). Over the last five years exports of knit-RMG from Bangladesh to the European Union has registered an average annual growth rate of 36.1 per cent, which was three times the average growth rate for woven-RMG over the corresponding period.

A sectoral decomposition of Bangladesh's exports by destination reveals that European Union is the single most important importer of knit-apparels from Bangladesh. It accounted for 69.2 per cent of total knitwear exports of the country in 1999 (figure V.3). With respect to woven-RMG, European Union ranks second preceded by United States, which accounted for 46.6 per cent of Bangladesh's total exports of woven-RMG (figure V.4). Within the European Union, Germany was the premier export market of Bangladesh in both woven (15.6 per cent) and knit-RMG (14.1 per cent). In case of leather, European Union ranked first with a share of 35.6 per cent of total export in 1999. Here Italy was the foremost importer accounting for 22.8 per cent of total exports in 1999. European Union also accounted for 35.2 per cent of total exports of frozen food, mainly shrimp from Bangladesh in 1999, a close second to United States whose share was 36.1 per cent. Among the EU countries, the United Kingdom was the largest importer of frozen food with a share of 13.1 per cent of the total exports from Bangladesh, followed by Belgium with 9.8 per cent.

Figure V.3. Market share of Knit-RMG exports, 1999

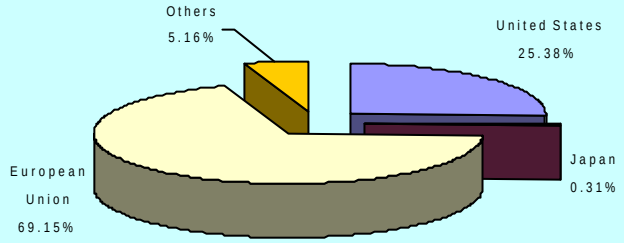


Figure V.4. Market share of Woven-RMG exports, 1999

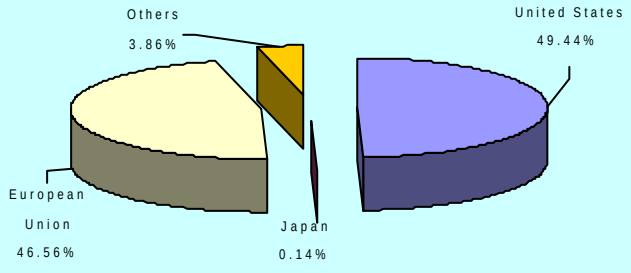


Table V.3 presents a clear picture of the dynamics of the share of major exports from Bangladesh in the total imports of European Union of that particular product. For example, men's and boy's shirts and T-shirts which are important import items to the European Union, Bangladesh, over the span of a little more than a decade, has enhanced its market share from 12.7 per cent and 1.4 per cent respectively, in 1988 to 27.1 per cent and 9.2 per cent respectively in 1999 to become the largest

Table V.3. Bangladesh's share in the European Union market with respect to some selected products

Products	Description	General GSP	GSP for LDCs	Working or processing carried out on non-originating materials that confers the originating status	Tariff rate(%) in 1998	1988 Exports	1988 Share (%)	1995 Exports	1995 Share (%)	1999 Exports	1999 Share (%)
61091000	T-shirts, singlets and other vests of cotton	85%	100%	Manufacture from Yarn (1) (2)	12	13 883	1.4	184 093	6.3	378 433	9.2
62053000	Men's or boys' shirts of man-made fibres	85%	100%	Manufacture from Yarn (2) or Manufacture from unembroidered fabric provided the value of the unembroidered fabric used does not exceed 40% of the ex-works price of the product (2)	12	45 854	12.7	155 811	30.6	169 493	27.1
61103099	Light weight fine knit roll, polo or turtle neck jumpers and pullovers of man-made fibres for women or girls	85%	100%	Manufacture from Yarn (1) (2)	13.2	606	0.06	53 742	3.7	176 585	5.6
7099090	vegetables	70%	100%	Manufacture in which all the materials of chapter 7 used must be wholly obtained	13.9+16.5 Ecu/100kg	1 423	2.5	4 911	3.8	6 689	3.5
3061380	Others	35%	100%	Manufacture in which all the materials of chapter 3 used must be wholly obtained	13.2	0	0	0	0	56 975	7.9
3061350	Shrimps of the genus penaeus	35%	100%	Manufacture in which all the materials of chapter 3 used must be wholly obtained	13.2	0	0	0	0	43 886	4.5
3037919	Others	35%	100%	Manufacture in which all the materials of chapter 3 used must be wholly obtained	13.3	3 333	30.4	4 442	24.3	7 414	22.3
64041100	Footwear with outer soles of rubber or plastics	70%	100%	Manufacture from materials of any heading except for assemblies of uppers affixed to inner soles or to other sole components of heading no. 6406	17.6	0	0	950	0.2	5 918	0.5
69111000	Tableware and kitchen ware	70%	100%	Manufacture in which all the materials used are classified with in a heading other than that of the product.	12.3	766	0.2	3 523	0.6	5 832	0.8
63051090	Other sacks and bags	85%	100%	Manufacture from natural fibres or chemical materials or textile pulp	4	18 084	33.7	10 480	33.2	11 885	43.5
Total for all the 10 categories						**83 949**	**2.4**	**417 952**	**6.3**	**863 110**	**7.3**

Source: Estimated from Eurostat Database.

exporters of these items into the European Union market. Bangladesh now accounts for about 7.3 per cent of the total imports for the ten most important categories of exports from Bangladesh at the 8-digit level (table V.3). A decade ago this share was only 2.4 per cent.

C. Effective market access

1. Background

Bangladesh had been accessing the European Union market under the preferential treatment offered within the ambit of EC-GSP (No. 2820/98). The EU-GSP regulations provide the coverage and depth of the preferential treatment to Bangladesh under the existing EU-GSP scheme.[7] Section B illustrated the growing capacity of Bangladesh to penetrate the European Union market. Products under the EU-GSP scheme are allowed entry into the European Union market at zero-tariff, subject to compliance with rules of origin. As an LDC, there is no quota on Bangladesh's exports to the European Union market under the current market access provision. The current EU-GSP regulations were earlier planned to be effective to December, 2001. The EBA brings the date of continuation forward and lends continuity to the preferential market access treatment on the basis of widest possible coverage.

The major binding constraint in transforming the potential advantage identified in chapters III and IV into effective competitive advantage in terms of c.i.f price rests in Bangladesh's lack of adequate capacity in ensuring compliance with the stringent European Union rules of origin.

Table V.4 provides information on Bangladesh's capacity to access the preferential treatment under EU-GSP schemes. In 1983 more than three-fourths of Bangladesh's exports which were eligible for GSP treatment, receiving preferential treatment whilst entering European Union markets. The share started to decline as the composition of exports began to change in the late 1980s and most notably, in the 1990s. This feature of preference schemes cannot be captured by the types of analysis used in chapters III and IV.

The increasing difficulty in accessing preferential treatments can be traced back to the structural change in the composition of Bangladesh's exports to European Union which is shown in figure V.5.

The Bangladesh, GSP utilization rate was as high as 77 per cent in 1983; it came down to 38 per cent in 1994; went up to 48 per cent in 1996 and came down to 27 per cent in 1997[12] (table V.4). The difficulty faced by Bangladesh in complying with the EU RoO with respect to its ma-

Figure V.5. Sectoral composition of exports to European Union, 1990, 1995, 1999

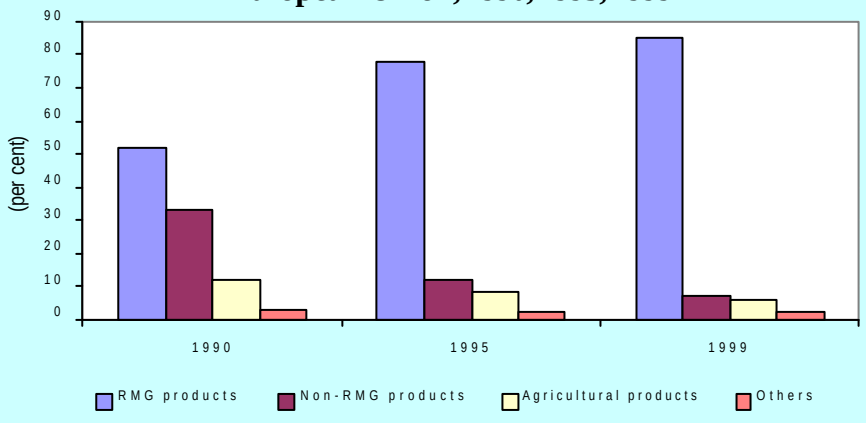


Table V.4. Bangladesh: GSP utilization rate, 1983-1997

($ Millions)

Year	Total EC imports	Imports duty free products (MFN basis)	Imports of agricultural products eligible for GSP			Imports of industrial products eligible for GSP			Imports of textile products eligible for GSP			Total imports of eligible products		
			Covered by GSP	Received GSP	Received as % of covered	Covered by GSP	Received GSP	Received as % of covered	Covered by GSP	Received GSP	Received as % of covered	Covered by GSP	Received GSP	Received as % of covered
1997	1 771 641	54 919	80 277	77 178	96.1	122 885	89 801	73.1	1 497 692	298 540	19.9	1 700 854	465 519	27.4
1996	1 474 362	64 056	104 341	98 199	94.1	117 412	93 895	80.0	1 182 301	486 816	41.2	1 404 054	678 910	48.4
1995	12 598	46 565	102 475	87 772	85.7	95 749	85 150	88.9	1 009 892	349 010	34.6	1 208 116	521 932	43.2
1994	1 097 007	80 562	106 363	67 992	63.9	86 271	69 516	80.6	817 949	245 503	30.0	1 010 583	383 011	37.9
1993	904 251	93 499	72 944	52 039	71.3	64 629	50 430	78.0	670 959	200 173	29.8	808 532	302 642	37.4
1992	747 206	96 770	56 968	47 214	82.9	66 759	52 594	78.8	526 034	153 308	29.1	649 761	253 116	39.0
1991	656 801	39 386	73 163	55 866	76.4	52 884	42 380	80.1	490 586	169 342	34.5	616 633	267 588	43.4
1990	501 030	85 638	59 943	50 115	83.6	58 264	45 086	77.4	287 587	104 526	36.3	405 794	199 727	49.2
1989	426 694	63 418	63 563	51 410	80.9	57 609	44 126	76.6	231 150	95 510	41.3	352 322	191 046	54.2
1988	363 255	59 615	59 598	49 516	83.1	46 268	29 990	64.8	185 868	77 299	41.6	291 734	156 805	53.7
1986	236 000		63 000	37 000	58.7	29 000	22 000	75.9	20 000	3 000	15.0	180 000	111 000	61.7
1985	292 000		53 000	33 000	62.3	23 000	17 000	73.9	21 000	2 000	9.5	206 000	120 000	58.3
1984	325 000		60 000	34 000	56.7	17 000	12 000	70.6	17 000	2 000	11.8	215 000	129 000	60.0
1983	204 000		44 000	35 000	79.5	14 000	13 000	92.9	9 000	800	8.9	127 000	98 000	77.2

Source: European Union Office, Dhaka.

jor product, RMG, accounting for more than four-fifths of the country's current export to the European Union, is depicted in box V.2 which provides some insights into the recent trends in GSP utilization.

2. Rules of origin

In general, the RoO criteria applicable under EU-GSP stipulated a value addition criteria for non-textile related exports to European Union and processing criteria for textile-apparels products. As long as Bangladesh's export basket was tilted in favour of primary and agro-based/agro-processed products such as raw jute, jute goods, tea and leather, accessing GSP preferential treatment by complying with RoO criteria did not pose a serious problem. However, with structural changes in exports to European Union things have changed radically. In case of textile and apparel products the RoO requires a tariff jump at the 4-digit level. The current RoO applicable for Bangladesh is a two stage conversion requirement both for woven-RMG and knit-RMG (yarn to fabrics e.g. weaving and fabrics to apparels-garments making).

Compared to the average for all LDCs where apparels constitute approximately19.7 per cent of the total exports of this group of countries, of Bangladesh, as noted earlier, these constitute more than three-fourths of the country's total exports. Since the backward linkages in textiles are weak and apparels are mainly assembled from imported fabrics, the overwhelming part of the RMG export is not eligible for preferential treatment as per the RoO requirements of EU-GSP. [13] The estimates for 1997, presented in table V.4 shows that only 19.9 per cent of the total exports of RMG are eligible for preferential entry into European Union market. One reason for the dramatic fall in the GSP utilizsation rates is the difficulties in compliance with the EU RoO (box V.1).

As a result of corrective steps in response to European Union sanction, the Export Promotion Bureau's (EPB) capacity to issue appropriate certificate of origin (CoO) has substantially im-

Box V.1. The saga of RoO compliance: Export of Bangladesh's RMG products to European Union

The RoO in place for preferential apparels exports under EU-GSP in 1996 was a three-stage conversion requirement for knit-RMG (spinning, weaving, apparel making) and two-stage conversion requirement for woven-RMG (weaving, apparel making). The Export Promotion Bureau (EPB) of Bangladesh is the agency which issues the certificate of origin (CoO) which certifies whether particular export consignments of apparels have complied with EU RoO criteria. In 1996 an inspection took place of the CoOs issued by the EPB in response to complaints by some Bangladesh competitors to the effect that European Union importers of Bangladeshi apparels were accessing preferential treatment although the products did not comply with the EU RoO requirements. About 25,000 CoOs issued by the EPB were put under scrutiny. Subsequently, following scrutiny, Schedule-A containing 367 CoOs were found to be fictitious and thus cancelled. Schedule-B containing 6,910 CoOs were suspected by European Union to be fictitious and EPB was asked to cancel these. Schedule-C contained 8,562 certificates which the European Union asked EPB to investigate and report to it. A six month deadline, expiring on 31 October, 1997 was given. GSP facilities would be withdrawn if appropriate measures, as desired by the European Union, were not undertaken. Under threat of sanctions of withdrawal of GSP altogether, EPB cancelled the certificates. The decision required payment by European Union importers of about $67 million to the European Union against the previously waived import duties on Bangladesh's RMG exports to the European Union.

proved. Consequently, there was a drastic fall in the GSP utilization rate for RMG exports to European Union. The received-coverage ratio for RMG products came down significantly from 41.2 per cent in 1996 to 19.9 per cent in 1997 (table V.4). Since Bangladesh's local capacity to produce fabrics for the export-oriented RMG (EO-RMG) was only about 8 per cent for woven RMG and about 40

Box V.2. Much ado about nothing: Derogation of EU RoO under regional cumulation

Rate of value addition for selected categories of woven-RMG

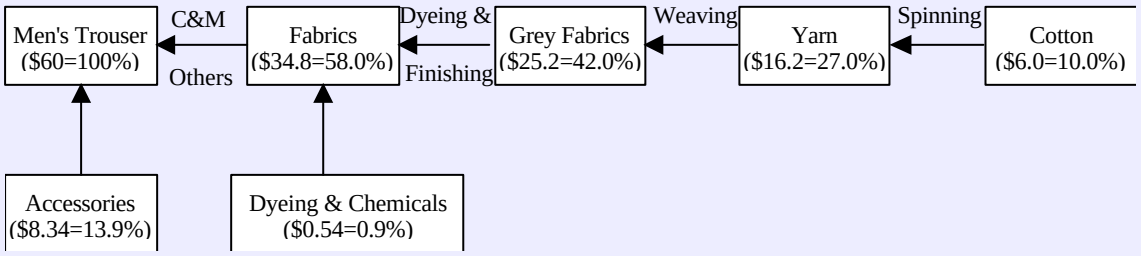
Type	V. A for RMG from Imported Fabrics	V. A for RMG from Imported Grey Fabric	V. A for RMG from Imported Yarn
Half-Sleeve Shirt	38.7%	44.7%	55.0%
Full-Sleeve Shirt	36.5%	42.9%	54.1%
Men's Trouser	27.8%	43.6%	58.6%
Ladies' Trouser	27.3%	43.6%	69.2%

Source: Report of Committee Set-up to Review SAARC RC Proposal, 1997.

As can be seen from the above table, local value addition of Bangladesh's RMG products which use imported fabrics range between 25-35 per cent of the total value of exports for most of the major categories of products. If fabrics are imported from India, local value addition of India, at about 65-75 per cent, will be substantially higher compared to that of Bangladesh. According to paragraph 1 of article 72a of EC Regulation no. 1602/2000, since the conditions laid down in Item 1 of the article is not satisfied, Bangladesh will not receive GSP treatment at a rate for which she is eligible as an LDC, e.g. 100 per cent duty drawback on 12.5 per cent tariff. Since value addition will be higher in the country from which fabrics are imported, preferential rate will be calculated according to the GSP eligibility of the country supplying the fabrics. In that case, the GSP margin for Bangladesh will be calculated at the rate which is eligible for India or Pakistan which fall into the category of "developing country" (e.g. 15 per cent duty drawback on 12.5 per cent tariff rate). Thus, RMG made in Bangladesh from imported fabrics from India/Pakistan will be eligible for a duty waiver of about 1.9 per cent (15 per cent of 12.5 per cent). European Union importers will still have to pay a duty of 10.6 per cent on imported RMG products from Bangladesh. Thus, actual effective margin to be accrued under RC will not be very significant for Bangladesh in the present context. Even if RC becomes operative, the additional margin to be accrued to Bangladeshi exporters of RMG will be insignificant, under 2 per cent of the export value.

As may be seen from the above table, in case of no major woven apparel groups is Bangladesh in a position to get zero-tariff access to European Union markets if she imports fabrics or grey fabrics. Only if Bangladesh imports yarn could it claim RC; but under two stage RoO Bangladesh is already allowed zero-tariff access to European Union markets at present and does not need to claim RC if it imports yarn.

Cost Analysis of Men's Trouser (Cotton) Per Dozen



The above chart which graphically depicts the cost structure of a typical item (men's trousers) also supports the contention that single largest value addition will not accrue to Bangladesh if it imports fabrics for cutting and making.

per cent for the knit-RMG, it was difficult for Bangladesh to comply with the three- and two-stage conversion requirement for the major part of the knit and woven-RMG exports to European Union.[14]

Subsequently, in response to a request from Bangladesh and as part of a global initiative, European Union agreed to revise its RoO. The sequence of revisions is presented in table V.5. The European Union allowed a derogation to two stages for knit-RMG and one-stage for woven-RMG from the then existing RoO requirements. It also allowed SAARC, ASEAN as well as Lomé Cumulation for exports of RMG products from Bangladesh for the period between October, 1997 and December, 1998. A quota was also imposed on various RMG products under preferential treatment from Bangladesh. Beyond this quota, unrestricted entry into European Union market was allowed under non-preferential treatment.

This derogation allowed Bangladesh some flexibility to access European Union market with preferential treatment. Later on, as table V.5 shows, in 1998 the EC RoO was further revised to allow unlimited quota-free entry to European Union markets under a two-stage criterion both for woven as well as knit-RMG which is operative at present. Bangladesh's domestic supply of fabrics for the woven-RMG stands at about 19 per cent (Bangladesh, 2000). Thus, its capacity to access preferential treatment for woven-RMG is still very limited. In the case of knit-RMG with relatively stronger backward linkages in knit-textiles (local fabrics constitute about 50-60 per cent of the requirement of export-oriented (EO) knit-RMG sector) the capacity of GSP utilisation is relatively high and is increasing at a fast pace. Though current data on the extent of utilization of the GSP facilities by the EO-RMG sector of Bangladesh is not available. Although a rough estimate shows that in 1999 it would have been around 35-40 per cent since the share of knit-RMG now exceeds that of woven-RMG in Bangladesh's RMG exports to European Union.

Table V.5. Changes in the European Union rules of origin

Year	1980-1996	1996-1998	1998-2000 (Sept)	2000 (Oct)
		Derogation to		*Under Regional Cumulation*
Woven-RMG	2 Stage	2 Stage	2 Stage	2 Stage
Knit-RMG	3 Stage	1 Stage (Under quota)	2 Stage	2 Stage

Source: EC GSP Regulations.

Note: Stage 1: Conversion of cotton to yarn (Spinning).
Stage 2: Conversion of yarn to fabrics (Weaving).
Stage 3: Conversion of fabrics to RMG (Cutting and Making).

One of the intended objectives of stringent RoO is to encourage the development of backward linkage industries in LDCs. The process criterion, for example, develops domestic manufacturing capacities, and penalizes countries which continue to remain predominantly dependent on imported inputs. Thus, from one perspective the spirit of RoO is understandable. On the other hand, stringent RoO may not allow LDCs to access the benefits which are allowed under initiatives such as EU-EBA. This tension also gives rise to a conflict of interest between the exporters of RMG and the domestic producers of textiles, as in the case of Bangladesh.

3. Regional cumulation

Regional cumulation (RC) is currently allowed under the EU-GSP scheme to enhance the coverage of products enjoying preferential treatment in the European Union market by permitting a derogation of the RoO requirements.[15] As a matter of fact, Bangladesh requested the European Union for global cumulation in 1996 and 1997. The initiative was supported by garments manufacturers and exporters association (BGMEA), especially exporters of woven-RMG who anticipated that this would allow them to access preferential treatment even when they imported fabrics from India and Pakistan (major suppliers of fabrics).[16] For Bangladesh, implementation of RC would mean that Bangladesh's RMG exporters could claim EU GSP even when the fabrics were imported from a third country as long as it belonged to the regional group. However, the yarn and fabrics manufacturers association in Bangladesh came out against SAARC RC, arguing that this would seriously harm the backward linkage industries, due to the fact that local industries could supply only a part of the demand of the EO-RMG sector and RC would provide them an opportunity to access zero-tariff entry into European Union market.

Despite this potential, Bangladesh is not expected to receive much benefit under the SAARC RC as it will provide European Union importers a differential equivalent of only 15 per cent of European Union tariffs and not 100 per cent (box V.2). If the average duty of RMG products in European Union is taken to be 12.5 per cent, this would allow the European Union importers to access a tariff reduction equivalent to only 1.9 per cent (15 per cent of 12.5 per cent tariff duty) on the value of the product. The reason for this is that the knit industry, being an integrated operation with very low value-added at the cutting and stitching stage, is unlikely to be affected by RC. Hence, only woven exports are possible beneficiaries of cumulation. However, the rules of origin restricts the benefits of cumulation to a very small section of the RMG industry where the domestic value addition exceeds 50 per cent. Even if this section of the industry were to take full advantage of cumulation and grow very rapidly, it would still remain a minor part of the RMG industry for several years (Bangladesh, 2001).

Box V.3. Non-compliance with EU-HACCP: Threat of ban on Bangladesh's export of shrimp to European Union

Bangladesh's export sector came under considerable strain in FY1997 when the European Union imposed sanctions on its exports of shrimp on account of non-compliance with European Union health and environmental standards. The European Union had initially given Bangladesh up to 31 November 1997 to implement adequate measures to ensure compliance with quality control rules and regulations. European Union provisions require compliance with a 265 points check-list under 22 heads as per the HACCP (Hazard Analysis Critical Control Point) manual standards. The United States, Japan and New Zealand also followed suit with threats of sanctions on grounds of non-compliance with hygienic standards. The European Union technical team, which subsequently visited Bangladesh expressed dissatisfaction with the progress of work in ensuring compliance and asked the Government to seek extension of the period by three months beyond the November 1997 deadline. The Veterinary Committee of European Union in its meeting at Brussels held in the first week of February, 1998 decided to lift the temporary ban on shrimp exports from Bangladesh on condition that the GOB efforts to upgrade the quality of processing in the shrimp factories are continued in future. The team asked for enactment of a Quality Control Act to be executed by the Department of Fisheries and to be monitored by a Supervisory Body. The European Union had earlier also asked Bangladesh to strictly follow regulations pertaining to the use of turtle-extrude machines in catching the shrimps by the open water method.

Therefore, derogation under RC may not be an efficient modality to assist Bangladesh to increase its GSP utilization rate. One option suggested by the BGMEA is to change the existing RoO in such a way as to allow the country access to zero-tariff under RC, subject to a certain level of local value addition. Another possibility is global rather than regional cumulation, with a percentage threshold for local value-addition. Another alternative option could be a single-jump requirement. Yet another suggestion is to harmonize the RoO on a global basis.

4. Non-tariff barriers in the context of preferential treatment

The other constraint which is also a major cause for concern in terms of market entry into European Union markets is non-tariff barriers. These concerns will remain even subsequent to the implementation of EU-EBA initiative. European Union health and quality standards is a case in point for Bangladesh, which has faced such constraints in terms of exports of shrimp to the European Union in recent years[17] (box V.3). Quality control issues gave rise to major disruptions in this sector in 1997 from which it has yet fully recovered. Bangladesh subsequently took energetic steps to overcome the problem by way of support for quality improvement through credit and strict implementation and monitoring of quality control at the factory level. With Government support, initially only 6 factories were able to satisfy European Union requirements. Subsequently, other shrimp processing factories were permitted to export and the number now stands at about 40. The whole incidence put the export-oriented shrimp culture under severe strain, that lead to factory closures and job losses and eventually the momentum of market entry in European Union by the shrimp industry suffered a major setback.

Table V.6. European Union imports of agricultural products

			1994			1999		
Product	Description	Tariff range	ECU (000)	M. Tonnes	Unit cost	ECU (000)	M. Tonnes	Unit cost
0105	Live poultry	67 ECU to 195 ECU per 1000 p/st	262 545	247 245	1.06	301 145	208 840	1.44
0407	Birds' eggs	39 ECU to 135 ECU per 1000 p/st	424 738	448 843	0.95	408 579	423 871	0.96
0803	Bananas (fresh or dried)	18 for plaintains and 765 ECU per 1000 kg for others	2 635 908	4 501 081	0.59	2 477 967	4 123 592	0.60
1006	Rice	9.8 for sowing and 164 to 533 ECU per 1000 kg	986 284	1 874 849	0.53	931 459	1 887 708	0.49
1703	Molasses	0.4 ECU per 100 kg	330 010	4 192 181	0.08	222 162	3 735 227	0.06

Source: Euorostat.

5. EU-EBA initiative and export diversification

As was mentioned, EU-EBA initiative envisages derestriction of a large number of commodities which were earlier placed under the protected import regime. LDCs are now able to export these items without quota and at zero-tariff – rice and sugar will be included in stages by year 2009 and bananas by 2006. Tariff rates on items such as rice, sugar and poultry products are quite high in the European Union market. Most of these are not currently exported by LDCs such as Bangladesh. However, there is a need to look at the export potential of these products from a dynamic perspective. As Mr. Lamy argued: "Of course some of the products are sensitive, but there is no point in offering trade concessions on products which LDCs can't export" (EC, 2000c).

As can be seen from table V.6, the size of the European Union market for some of the derestricted products under EU-EBA is quite considerable. Until now, Bangladesh's exports of such items as rice, sugar, meat or poultry products to European Union have been insignificant and sporadic. For example, in 1996 Bangladesh exported €15 thousand rice to the European Union, which fell to €13 thousand in 1998 and €3 thousand in 1999; the export of sugar also registered significant fluctuations - 9 thousand ecu in 1996, 24 thousand ecu in 1997, 72 thousand ecu in 1998 and 14 thousand ecu in 1999. In 1995 Bangladesh also exported poultry products worth 9 thousand ecu. Whilst the value of exports is insignificant, the fact that Bangladesh did export some amount of these products is in itself interesting.

The other issue to examine is the potential market opening in the context of structural changes in Bangladesh. The agriculture industry has undergone important changes in recent years. The country is approaching self-sufficiency in the production of rice and the share of non-crop agriculture, especially livestock, poultry and fisheries, registering significant growth. The non-crop sector's share of GDP increased from 28.5 per cent in 1990 to about 42.2 per cent in 1999 (tableV.7). Livestock, poultry and fisheries subsectors also registered quite robust growth throughout the 1990s.

If current trends hold, Bangladesh will be able to produce surplus rice in the near future and will also release resources for the growth of non-crop sector. In recent years, availability of both cereal and some non-cereal products such as livestock and poultry products have increased (Hossain, 2000).

With the production of rice exceeding 20 million tonnes this year, Bangladesh is contemplating exporting some surplus rice. As can be seen from table V.7 the European Union market for agricultural products is quite large and this market has now been derestricted at zero-tariff. Given

Table V.7. Structural transformation of the Bangladesh agriculture sector, 1973-1974 to 1998-1999
(Per cent share of agricultural GDP)

Subsectors	1973-74	1989-90	1998-99
Crops	80.0	71.5	57.8
Forestry	4.2	9.8	10.9
Livestock/Poultry	7.6	9.3	12.9
Fisheries	8.2	9.5	18.4
Total	***100***	***100***	***100***

Source: Hossain, 2000.

the high tariff currently existing in the European Union market, zero-tariff access should provide Bangladesh a competitive edge over countries which enter the European Union market without preferential treatment. It should be noted that the average price of rice (4-digit category 1006) imported by European Union was €0.55 thousand per metric tonne in 1996 and €0.61 thousand per metric tonne in 1997. In 1997 Bangladesh exported rice worth €0.03 million to Australia and Italy. The unit price of rice exported by Bangladesh was €0.55 thousand per metric tonne (Bangladesh, 1999). The average price of rice imported by European Union in 1999 was also found to be €0.55 thousand per metric tonne. Thus, Bangladesh could offer a competitive price.

From a dynamic perspective, one particular sector which appears to have high potential in the European Union is the poultry sector. Until now this sector has predominantly catered to the domestic market. It is run both on a household basis, as well as, and increasingly so, on an industrial basis. Export of frozen poultry to European Union market is a real possibility given the price-differential between the local market and European Union landed price. However, as in the case of shrimp, product quality and compliance with strict European Union quality control regulations will be major issues in terms of market entry with the EU-EBA initiative. Moreover, guaranteed buy-back contracts with retail chains could become possible. From a forward looking perspective the feasibility of export-oriented FDI and joint venture projects in this particular sector should be an issue of further in-depth study.

Bangladesh is also a large producer of bananas. Apart from being produced at the household level, they are also produced on commercial basis in a number of regions of the country. In 1998 national banana production stood at 624.8 thousand metric tonnes. Derestriction of exports of banana and zero-tariff market access may also open up market opportunities for this particular product. Factors such as the price differential between global and domestic prices, margin of advantage accruing to the importer arising out of the zero-tariff, quality of the product and timelines of the delivery will determine the extent of potential market penetration.[18]

Since Bangladesh generally caters to the low-quality down-market segment in the European Union market, price elasticity of its exports are very low. This implies a need for entrepreneurs to move upmarket through quality upgradation of products. From a policy perspective this would reemphasize the importance of other complementary initiatives to promote and support trade related capacity building efforts within Bangladesh by way of technology transfer and skills improvement. Additional measures on the part of European Union, and for that matter the global community, will be required if countries such as Bangladesh are to fully exploit market access opportunities of the type offered under the EU-EBA initiative.

D. Complementing the EU-EBA initiative with capacity-building initiatives

While announcing the EU-EBA initiative Mr. Lamy went on record to say "We of course recognize that duty-free access alone is not enough to enable the poorest countries to benefit from liberalized trade. We need to help them build their capacity to supply goods of export quality and we reaffirm the Commission's commitment to continued technical and financial assistance to this end." (EC, 2000c). Therefore, the capacity of LDCs to access the potential benefits of the EU EBA initiative will depend on other support measures.

1. Support for trade capacity enhancement

Supply side constraints are major impediments inhibiting Bangladesh's capacity to access the current benefits under EU-GSP and potential benefits under EU-EBA initiative. These impediments are at the level of firms, institutions and infrastructure and together influence the degree of competitive edge of LDC products in the European Union market. Technical assistance in the area of upgrading product quality in sectors such as apparels, Bangladesh's premier export product in the European Union market, could be an important supportive measure in this regard. The BGMEA has been petitioning for this type of support for a long time.[20] Bangladesh has not been able able to access the preferential treatment because of non-compliance with the EU RoO. Technical support in the stages of dyeing and finishing and in terms of moving upmarket through support to skill enhancement in fashion and design of apparel production could prove to be an important contribution by the European Union.[21] Such support is all the more important in the context of the increased competition from the impending major changes in the global textile market subsequent to the implementation of the Agreement on Textiles and Clothing. While the demand for relaxing the RoO remains, such support could also help Bangladesh to comply with the tariff-jumps noted earlier. This type of initiative could also enable Bangladesh to access the potential benefits under the SAARC regional cumulation.

Other areas of potential support could be in infrastructure development, including upgrading port facilities and modernization of customs. Inefficiencies in these areas add to the effective cost of doing business which erodes the competitive edge of Bangladeshi products in the European Union market. Concrete need-based support to institutions such as Export Promotion Bureau (EPB), Bangladesh Standardization and Testing Institute (BSTI), Bangladesh Computer Council (BCC) and Department of Fisheries (DOF) could help enhance Bangladesh's capacity to access market opportunities emerging out of the EU-EBA initiative. European Union could create a complementary support fund as an addition to the EU-EBA in order to stimulate LDC efforts to access the potential opportunities stemming from the initiative.

2. European Commission support for global initiatives

The Uruguay Round provisions require developed economies to provide technical support to LDCs, in order to enhance their capacity for strengthened global integration. Bangladesh has already prepared a technical needs assessment report under the Integrated Framework (IF) initiative of the six multilateral agencies including European Union, World Bank and World Trade Organization (WTO). European Union could pursue a more proactive policy to support the IF initiative. It could also help create a global fund to enable LDCs to implement programmes for strengthened compliance capacity with respect to WTO provisions and to enhance their capacity to access global market opportunities.

3. Linking EU-EBA with FDI from European Union

To a large extent, the capacity of LDCs to translate the potential gains from EU-EBA into realized gains will depend on their capacities to attract foreign direct investment (FDI) to sectors which stand to gain from the initiative. Technology transfer and skill improvement are essential to translate the comparative advantage of the LDCs into competitive advantage. Promoting FDI flows from European Union countries to LDCs could be a critical supportive measure which European Union could undertake. For this to happen, European Union could chalk out a comprehensive plan

to stimulate FDI outflows from its member Countries in specific LDC sectors. For example, with respect to Bangladesh's fish and poultry sectors, FDI based firms from European Union countries and joint-venture firms with participation of European Union companies are likely to be better positioned to comply with the stringent quality control regulations. European Union could design fiscal and institutional support to firms that invest in LDCs. Credit support from financial institutions such as European Investment Bank (EIB) and initiatives to open soft-loan windows could also be explored. Credit ratings of most of the LDCs are not high which makes it expensive for investors to access commercial credit for investment in LDCs.[22] As such, European Union support in this area would be an effective step in terms of complementing the EU-EBA initiative.

4. Linking trade with aid

In 1999 Bangladesh received €194.0 million of aid from European Union and its 15 member countries.[23] All development assistance to Bangladesh was in grant form, 90 per cent of which was channelled through Project Aid. There is a need to strengthen the aid-trade nexus in order for Bangladesh to access emerging market opportunities on a sustainable basis. One possible way could be to put in practice an export capacity audit for assessing the impact of aid channelled to LDCs in order to ensure contribution of aid to trade capacity-building..

5. A comprehensive EU-EBA initiative

At present most LDCs, including Bangladesh, have a high export concentration in European Union market. Enhanced market access and market access security under the EU-EBA initiative is expected to provide LDCs opportunity to adopt product diversification and capacity expansion. However, to do this in a planned way, a comprehensive strategy should be articulated and implemented. It is important to identify concrete measures to assist LDCs to (a) overcome the difficulties in complying with RoO requirements; (b) comply with stringent quality and health standards often acting as non-tariff barriers to entry into European Union markets; (c) identify emerging market opportunities by taking a demand-side perspective; and (d) identify possible sources of financial resources which will be required for capacity-building in the LDCs. The European Union could provide the necessary support required to design such a strategy.

E. Conclusions

This chapter has reviewed the extent to which EU-EBA proposal will affect the structure of Bangladesh's exports. Three opportunities exist in frozen poultry, bananas and rice. The restructuring of the Bangladesh economy may also provide opportunity for current exporters to examine ways to upgrade the quality of their products.

The chapter also builds on the analysis of chapters III and IV by examining the problems associated with taking advantage of market access opportunities. As shown, the current utilization rates for the EU GSP scheme are very low. Expanding market access is a positive step, but additional steps to make this market access effective are also required. These could include, in the context of Bangladesh, and indeed with LDCs in general, trade capacity-building initiatives that target supply side constraints and meeting the eligibility requirements of donor countries.

NOTES

[1] To compare, for LDCs as a group, European Union accounted for 50 per cent of all exports (equivalent to 15.5 billion euro in 1998), while the share of United States was 36 per cent, Japan 6 per cent and Canada 2 per cent.

[2] The proposal is to extend duty-free, quota-free access for a further 919 tariff lines. Only 25 tariff lines are left out which relate to arms trade. For three products (bananas, sugar and rice) implementation will take effect in three progressive stages to be completed within three years). This new list obviously covers many products which are not exported by LDCs because of the current high level of protection levels in the European Union.

[3] The non-ACP LDCs are: Bangladesh, Yemen, Afghanistan, Maldives, Nepal, Bhutan, Myanmar, Lao People's Democratic Republic and Cambodia.

[4] Ratio of primary to manufactured goods in the export basket was 30:70 in 1980; in 1999 it was 8:92; the share of jute and jute goods in the export basket was 73.8 per cent in 1980; to compare, the share of exports of RMG ($4,352.3 million), in total exports ($5,752.2 million) of Bangladesh was 75.6 per cent in FY2000 with the share of jute and jute goods coming down to 5.9 per cent ($337.4 million) over the same period.

[5] Export to United Kingdom was $500.1 million in FY2000, whilst the corresponding figures for Germany was $688.1 million, France $366.9 million and the Netherlands $283.0 million.

[6] The extension of Lomé equivalent duty-free access to all 48 LDCs, and not just 39 LDCs which are signatories of the Cotonou Agreement, is one of the two pillars of European Union policy for dealing with WTO incompatibility. See chapter II for further information.

[7] The rules were enacted to prevent the misuse or abuse of the preferential treatment given to developing countries (as listed in Annex III *of Consolidated Version of the GSP Regulation* containing Council Regulation (EU) No. 28 20/98) applying a multi-annual scheme of generalized tariff preferences for the period 1 July 1999 to 31 December 2001. Bangladesh receives more favourable treatment since it is listed in Annex IV as one of the least developed countries of the World. Products originating in Bangladesh can enter the European Union market duty-free and quota-free, while products from the countries listed in Annex III, but not in Annex IV, have to pay import duties on a modulated scale and may also be subject to quota restrictions.

[8] This is to be expected since existing EU-GSP schemes cover almost 99 per cent of all LDC exports to European Union (UNCTAD's LDC Report, 2000).

[9] For example, in 1997 exports of Bangladesh products eligible for GSP plus items exported under MFN at zero-tariff constituted about 99.1 per cent of total exports to European Union.

[10] For the purpose of simplicity of estimation and in view of the information available, tariffs have been estimated on the average unit price of exports from Bangladesh in the European Union.

[11] Imports from developed countries enter European Union market subject to full tariff payment whilst those from developing countries enjoy preferential treatment ranging between 10-85 per cent of the MFN tariff rate.

[12] The GSP utilization rate for all developing country beneficiaries in the European Union market was about 56 per cent as against about 27 per cent from the LDCs.

[13] Products which are produced and processed locally have no RoO compliance problem. In case of most items a percentage requirement is called for, in order to access preferential treatment under EU-GSP, either as a minimum percentage of imported inputs or as a minimum percentage of domestic content. Thus, for agro-products the share of actual availability as a percentage of GSP eligibility was very high, about 96 per cent in 1997, for which information is available. For other industrial products such as leather goods and jute goods, raw materials of which mainly originate within Bangladesh, the utilization rate was also very high, at about 73 per cent in 1997.

[14] As a matter of fact, Bangladesh has earlier, in 1996, requested European Union to allow global cumulation in order to facilitate compliance with EU RoO requirements.

[15] Such treatment under RC was first given to countries belonging to ASEAN and Andean Group in 1985 and subsequently to CACM countries in 1998.

[16] As stipulated by articles 72, 72a and 72b of European Union Customs Code, although the GSP RoO are, in

principle, based on the concept of 'a single country of origin, in certain cases this rule could be *liberalized* so as to permit imported inputs from other beneficiary countries to be regarded as local content, thus easing compliance with the RoO requirements. Accordingly, under EU-GSP scheme, partial cumulation is also permitted, subject to certain conditions, on a regional basis. Such regional cumulation allows that, materials or parts imported by a member country from another member country of a regional grouping will be considered as originating products of the country of manufacture and not as third-country inputs. In the case of Bangladesh, if for example, SAARC regional cumulation was allowed for RoO, Bangladeshi exporters could claim preferential treatment under EU-GSP scheme even if the fabrics were imported from India (or for that matter from Pakistan) and the two-stage requirement under EU RoO (yarn to fabrics to RMG) were met if not locally, then at least regionally.

[17] There are about one million people involved in downstream and upstream activities related to shrimp culture in Bangladesh. Number of processing units is about 150.

[18] As far as sugar is concerned at 152.9 thousand tonnes of production in 1999, output was substantially lower than what was demanded locally. For example during the current year, in view of the drastic fall in production of sugar, the GOB is planning to import about 325 thousand tonnes of sugar. However, as Annex Table-3 shows, in some years Bangladesh did indeed export some sugar to the European Union.

[19] For estimation purposes, major exportable items have been included on the basis of 1999 exports to European Union. All data are from the Comext Eurostat Database.

[20] Although under the Bangladesh Export Diversification Project (BDXDP) some supportive activities have been initiated in recent years, which obviously this is not enough.

[21] A Fashion and Design Institute has recently been established in Bangladesh with support from GOB and the BGMEA.

[22] Usually it is a few percentage points more than the LIBOR rate.

[23] This was about 28.7 per cent of all aid received by Bangladesh during the corresponding year.

CHAPTER VI

PERSPECTIVES FROM MAURITIUS

A. Introduction

Mauritius exports a very narrow range of products dominated by apparel, clothing and sugar primarily to the United States and the European Union markets. This dependence can be explained by the fact that over 96 per cent of its sugar exports go to the European Union under the Sugar Protocol of the Lomé Convention. Under that arrangement Mauritius holds the largest European Union sugar quota amongst the African Caribbean and Pacific (ACP) countries and receives sugar prices that are about two and a half times world prices. Mauritian apparel and clothing exports receive free access to the European Union market, while quotas regulate the exports of non-ACP countries. Thus changes in the trade policies of Mauritius' major trade partners are likely to have a profound effect on the future performance of the Mauritian economy.

While the sugar industry and clothing export enterprises have over the years benefited from the privileges and high prices obtained in the European Union market, the substantial rents obtained in these markets have led to a degree of artificiality and fragility in those operations. The high prices obtained for Mauritian sugar in the European Union has significantly increased the value of land and other inputs used in sugar production which would require important and painful adjustments if reform of the Common Agricultural Policy resulted in a lowering of sugar prices in the European market.

Therefore, Mauritius is a good case study to examine the effects of the EBA proposal and its extension to the other members of the Quad. In the first instance as a non-LDC member of the

ACP group there is scope for its preferential sugar access to the European Union to be eroded. Second, as it continues to develop its apparel sector, enhanced market access for LDCs into the United States and other Quad markets could also present adjustment problems that could affect its industrial transformation toward the manufacturing sector.

B. The structure of Mauritian exports

Exports to the European Union are dominated by apparel and sugar which accounted, between1993 and 1999, on average, for 88.3 per cent of these exports. During that period exports of apparel to the European Union increased from 52.5 per cent to 60.2 per cent while the share of sugar dropped from 36.8 per cent to 30.4 per cent. Exports of fish increased from 2.5 per cent to 3.8 per cent, exports of pearls and stones averaged 1.8 per cent and exports of watches 1.1 per cent. Other export items to the European Union were marginal at best.

The bulk of non-European Union exports consist of apparel and clothing exports to the United States which averaged over 73 per cent of total non-European Union exports in 1993 to 1999. Exports of cane sugar to other countries averaged just over 3 per cent. Textile yarn is another important export item with a rapidly increasing share of non-European Union exports. Exports of yarn averaged 10 per cent of non-European Union exports between 1993 and 1999. Overall the share of exports to the European Union dropped from 79.4 per cent of total exports in 1991 to 72 per cent in 1999. Exports to the United States peaked at 18.8 per cent in 1994, fell to 13.3 per cent in 1996 then rose again to 18.4 per cent in 1999. The share of exports to other markets hovered between 7.4 per cent in 1991 to 9.6 per cent in 1999 (table VI.1).

The growth in apparel exports to the United States was mainly due to the establishment of Hong Kong, China enterprises in Mauritius in the 1980s. These enterprises established workshops in Mauritius in order to circumvent the restrictions of access for their products to the United States under the Multi-Fibre Agreement. In Mauritius these firms produce mainly cheap basic products and still account for the bulk of Mauritian exports of apparel to the United States.

With the passing of the Africa Growth and Opportunity Act (AGOA) and the admission of Mauritius as one of its first beneficiaries, the erosion of trade preferences for apparel and clothing exports to the European Union market and the decline in the value of the euro against the dollar, could initiate a shift toward the more remunerative American market in the near future. In addition, the restrictions in the AGOA concerning the origin of the raw material, the provisions regarding the cumulation of origin could increase regional trade between Sub-Saharan countries. This may further induce the delocalization of Mauritian clothing enterprises in the region. It is clear that the AGOA has created interesting new prospects for Mauritius in the United States market and could lead to a redirection of Mauritian apparel exports and other products to the United States.

With regard to sugar, Mauritius has, for a long time, obtained a small export quota for the United States market. Nevertheless, with the current international pressures and WTO regulations, there is little prospect to increase the Mauritian sugar quota for the American market.

Of more interest perhaps are the export prospects to other non-Quad countries, especially the sustained growth in textile yarn exports to these markets. Between 1991 and 1999, yarn had become the third largest export item, accounting for over 3 per cent of total domestic exports and

Table VI.1. Main exports of Mauritius by product and country

(per cent)

Product	Destination	1991	1993	1994	1995	1996	1997	1998	1999
Sugar	**World**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	European Union	96.6	95.9	94.6	98.6	96.5	95.9	96.8	97.9
	United States	2.2	1.6	1.9	0.6	2.8	3.3	2.4	1.2
	Rest of the World	1.2	2.5	3.5	0.9	0.7	0.8	0.7	0.9
Fish	**World**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	European Union	95.4	98.1	97.1	95.6	94.2	96.4	95.8	
	United States				0.4				97.8
	Rest of the World	4.6	1.9	2.9	4.0	5.8	3.6	4.2	
Textile yarn	**World**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	European Union	95.9	33.6	46.6	40.2	34.3	15.4	8.1	5.6
	United States								
	Rest of the World	4.1	66.4	53.4	59.8	65.7	84.6	91.9	94.4
Pearls and stones	**World**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	European Union	70.6	81.8	81.0	73.2	71.1	61.3	73.7	74.3
	United States	3.5	7.3	15.2	18.8	16.6	18.8	11.7	18.3
	Rest of the World	25.8	10.9	3.7	8.0	12.3	19.8	14.6	7.4
Apparel	**World**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	European Union	75.0	67.3	64.3	65.8	72.8	73.5	68.0	66.0
	United States	17.6	29.5	30.5	27.5	21.7	21.8	26.9	28.0
	Rest of the World	7.4	3.1	5.2	6.7	5.5	4.7	5.1	5.9
Watches	**World**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	European Union	79.4	71.2	49.1	55.1	48.4	66.0	56.8	49.6
	United States								
	Rest of the World	20.6	28.8	50.9	44.9	51.6	34.0	43.2	50.4
Flowers	**World**		**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	European Union		27.0	22.6	20.5	21.2	23.3	30.4	29.2
	United States		5.8					5.5	5.1
	Rest of the World		67.2	77.4	79.5	78.8	76.7	64.1	65.7
Glasses	**World**		**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	European Union		23.8	26.7	40.1	31.2	18.5	36.5	32.0
	United States		46.9	54.9	44.4	50.2	21.2	36.4	38.2
	Rest of the World		29.3	18.4	15.5	18.6	60.4	27.1	29.8
Molasses	**World**		**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	European Union		35.2	63.6	87.0	100.0	72.6	22.8	72.0
	United States		33.3	23.4	13.0		27.4	77.2	
	Rest of the World		31.5	13.0	0.0	0.0			28.0
Tea	**World**		**100.0**	**100.0**					
	European Union		74.0	43.5					
	United States		1.8	4.4					
	Rest of the World		24.2	52.1					
Other EPZ	**World**		**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	European Union		94.7	81.8	78.2	74.8	63.1	67.1	63.9
	United States			3.5	2.7	2.9	22.5	13.2	11.8
	Rest of the World		5.3	14.7	19.1	22.3	14.3	19.7	24.2
Total Mauritian Exports	**World**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	European Union	79.4	75.0	73.5	75.9	77.6	75.8	73.7	72.0
	United States	11.6	18.5	18.8	15.4	13.3	14.6	17.1	18.4
	Rest of the World	9.0	7.4	7.7	8.7	9.1	9.5	9.2	9.6

Sources: Figures for 1991 obtained from *Mauritius: Toward the 21st Century*, Trade Policy Division, Policy Research Department, World Bank, December 1993. Figures for 1993 onward computed by the authors, based on various issues of External Trade Statistics, Central Statistical Office, Mauritius.

Other EPZ includes live animals, meat and articles of other precious metals.

over 11 per cent of exports to non-European Union countries. The main market – Madagascar – saw its share increase from 50.4 per cent of non-European Union exports in 1993 to 80.3 per cent in 1998 but fall to 54.7 per cent in 1999, when 31.3 per cent of yarn exports went to Hong Kong, China. The share going to other regional markets – South Africa and Zimbabwe – averaged 24.6 per cent in 1991 to 1997, but fell sharply in 1998 and 1999, due principally to the decline in exports to Zimbabwe. Hong Kong, China is another important yarn export market for Mauritius with 6.9 per cent of its exports on average in 1994 to 1998 and 31.3 per cent in 1999.

It appears that the growth of textile yarn exports to Madagascar is due to the delocalization of Mauritian garment enterprises to that country. For example, a major knitwear manufacturer and its affiliated companies have over 5,000 employees in the country, and a textile enterprise, has moved its low-end operations to Madagascar, creating about 4,000 jobs. Exports of textile yarn to Hong Kong, China can be explained by intra-group operations of Hong Kong, China multinationals establishing workshops in Mauritius.

Watches are another item for which non-European Union markets – essentially Switzerland – have claimed an increasing share of exports. Exports of watches to these markets have increased from 20.6 per cent in 1993 (with 59.4 per cent going to Switzerland) to 50.4 per cent in 1999 (Switzerland: 79.7 per cent).

C. The impact of EU-EBA on the sugar industry

1. The sugar market

Sugar remains the most important Mauritian export to the European Union. The terms and conditions of its sale to this market are complex reflecting the high degree of intervention and regulation by the European Union authorities. The Sugar Protocol lays down the quotas and prices that apply to imports of ACP sugar on the European Union market. Within the framework of the Protocol the terms and conditions of sale are negotiated between the Mauritius Sugar Syndicate, which is responsible for the marketing and shipment of the entire local production, and the British refiners. In addition to the 506,000 tonnes of sugar to which Mauritius is entitled under the Protocol, a certain quantity of raw sugar is exported to Portugal, France and Finland under the Special Preferential Sugar (SPS) Agreement,[2] at a price slightly below the Protocol price. The quantity of allocated sugar from Mauritian and other ACP producers under SPS is calculated as the difference between the cane sugar refining capacity of European Union member States and the quantity of sugar supplied by the French Overseas Departments, that supply at the MFN rate and the ACP / India quota. Under the SPS, Mauritius has a quota of 85,000 tonnes. It also exports 58,000 tonnes of special sugar within the Protocol quota of 506,000 tonnes, of which about half is sold in the United Kingdom and half in other European Union countries.[1]

The picture, which emerges, is that of a segmented market in which different quantities of sugar are sold concurrently to European Union countries on different terms and at different prices. The EBA proposal adds a further dimension of complexity, but its overall impact on the Mauritius sugar industry will necessarily be affected by these different arrangements.

Between 1972-1975 Mauritius could have reasonably been considered a mono-crop economy with sugar and molasses accounting for over 80 per cent of total exports. Sugar output accounted for

30 per cent of GDP and approximately 40 per cent of total employment. Under the terms of the Commonwealth Sugar Agreement that regulated exports of sugar to Britain, Mauritius sold 300,000 tonnes on the British market at negotiated prices. The rest was sold on the world market (Greenaway and Lamusse, 1999).

The sharp increase in price under that arrangement combined with three successive record sugar crops, led to a large increase in export proceeds and in national income and tax revenue. In 1973 and 1974, export proceeds increased by 30.2 per cent and 140.5 per cent respectively, national income rose by 30.1 per cent and 77.1 per cent and the revenue from sugar export duties by 61 per cent and 170 per cent. Although the price of sugar on the world market peaked in 1975, a severe cyclone that year reduced the Mauritian sugar crop by one-third, which prevented it from taking full advantage of these record prices. It is estimated that in 1972-1973 the windfall gain from the sugar boom was worth 6 to 8 per cent of GDP (in constant 1972 prices). It reached 25 per cent of GDP in 1974 and despite a substantial production shortfall, still amounted to 19 per cent of GDP in 1975. Thus, the record sugar production of 1972-1974 was not included in the calculation of the windfall gain, which concentrated exclusively on the effect of the price shock. Clearly the sugar boom had a very significant impact on the Mauritian economy.

Another way of assessing the importance of sugar in Mauritius is through an analysis of the benefits derived from the European Union prices and their impact on the local economy. In the 1980s a World Bank mission evaluated the impact of the European Community "dividend" – the difference between the value of sugar sold at European Union prices and the world market prices – on the Mauritian economy (Gulhati and Nallori, 1990). They concluded that absolute savings (and investment) due to the dividend during 1968-1980 was $122 million (of which savings in 1977-1979 was $87 million) and in 1980-1986 $200 million. The increase in national income during 1968-1980 was $529 million, was equivalent to 7 per cent of total GDP in the same period. Similarly, the increase in national income during 1977-1979 was $87 million, equivalent to 3 per cent of total GDP. Lastly, the increase in national income during 1980-1986 was $467 million, equivalent to 5.7 per cent of total GDP

The size of the sugar industry has since dwindled considerably and its contribution to GDP is now – average of 1997-2000 – less than one-fourth of what it was in the mid-1970s during the sugar boom. Yet these results provide an indication of the loss that could be incurred by the Mauritian economy from a substantial reduction in the price of sugar on the European Union market with the opening of the European market to non-ACP LDCs and a review of the Common Agricultural Policy (CAP).

LDC sugar imports under the tariff quota will, as from 2001/2002, be counted within the SPS tonnages. The current SPS quota that expires in 2001 will be renewed, with a review of the system of allocation and very probably, a reduction in the share of Mauritius.

A review of the CAP was due in 2001, but has been deferred until 2003. The reform of the system is scheduled for 2005, when the current European Union Agricultural Budget will terminate. The implementation of the EBA proposal could lead to a redistribution of quotas in the European Union market which could be to the detriment of Mauritius and other ACP countries. In the context of these measures, local authorities foresee a substantial reduction in the SPS quota for Mauritius over the next few years and virtual disappearance by 2006. There would also be a reduction in the European Union price as early as 2003 and from 2007 with a 50 per cent reduction in the European

Union tariff on LDC sugar, the situation could become very serious indeed (see chapter III.C.1).

2. Overview of existing studies

The impact of the proposals for sugar depends on a number of assumptions about future investments by LDCs and their capacity to process and export larger quantities of sugar, infrastructure bottlenecks, regional cumulation, trade swaps, European Union and world price trends.

The main incentive for an increase in LDC sugar exports to the European Union would be the very large difference between the European Union and the world sugar price. In 1999-2000 the European Union price at €650 per tonne was 2.6 times the world price. On the other hand the main constraints would come from infrastructural, storage and shipping difficulties, which could hamper a large and rapid increase of LDC sugar exports.

Important investments are necessary to increase LDCs exports to the European Union on a large scale. Among other measures, which could boost LDCs' exports to the European Union, is the regional cumulation of origin and trade swaps. The difference between the community price (€650/tonne) and world market prices (€250-300/tonne) makes the European Union market extremely attractive and could induce LDC producers to import large quantities from third countries for their domestic consumption so as to be able to export their domestic production. This practice would not contravene European Union regulations and would allow substantial additional quantities of domestic sugar to be released for export to the European Union.

Given the large element of uncertainty concerning the speed and extent to which LDC exports would increase following the opening of the European Union market, the European Commission has conducted an assessment of the impact of the EBA proposal on the basis of two scenarios (EU, 2000a). The first high scenario is based on the assumption that if the European Union lifted its border protection for LDC sugar, part of the sugar currently exported by those countries to the world market would be directly available for export to the European Union.

LDC sugar producers could export part of their domestic sugar to the European Union and import from third countries for domestic consumption needs. It has been assumed that about two-thirds of LDC production – about 1.4 million tonnes – could be exported to the European Union after of a period of three years.

According to the European Union study, the free access to the European Union market can be expected to enhance production in LDCs as well as their refining activities, leading to a further increase of about 1.3 million tonnes of LDC exports to the European Union in the medium term. On this basis it could be expected that, after an initial phasing-in period, the total European Union sugar imports from LDCs could amount to some 2.7 million tonnes, an increase of 144 per cent above average European Union imports between 1997 and 1999 .

A second much more moderate scenario of the European Union study, lays stress on the infrastructure constraints and delays in mobilizing resources to cater for a large increase in LDC sugar exports to the European Union. It assumes that LDCs will, in the first instance, try to direct existing exports to the European Union. In addition some import/export swaps could be organized but these would be limited by infrastructure and logistic problems. Nevertheless, these exports could increase over time, when additional investments are realized, which would facilitate increased pro-

duction and exports. According to this scenario LDC sugar exports to the European Union would gradually increase to 900,000 tonnes in the medium-term. Nevertheless, it would take time for LDCs to overcome the numerous constraints that might interfere with and delay their ability to respond to the opportunities created by EBA. An indication of problems that could be faced by the LDCs in this regard are the very modest results achieved by the European Union's programmes of trade and assistance to the ACP in creating the conditions for their sustainable development.

Another study has been carried out by the *Association des Organisations Professionnelles du Commerce des Sucres pour Les Pays de l'Union Européenne* (ASSUC).[3] The purpose of the study was to back-up the hypothesis that the trade and investment community will overcome infrastructure and other problems in EBA countries to ensure that significant quantities of sugar are exported to the European Union in the shortest time possible to benefit from the differential in price between the world market and the European Union. The study examines the sugar situation in major LDC sugar producers. It also briefly considers current investments and the potential for future expansion. The core problem relates to the ability of LDCs to transport sugar to a suitable port and on board a vessel for export to Europe.

An important assumption in the study was that the supply of "EBA sugar" to the European Union depends on a configuration of prices which is highly volatile. Potential LDC supplies to the European Union under EBA would be similarly volatile. Hence it is difficult to make an accurate forecast of the quantities of EBA sugar that are likely to reach the European Union market. The situation would be further clouded by the uncertainties concerning the application of the EBA safeguard clause (see chapter II.C.3.c).

On the basis of ASSUC's study, it appears that certain LDCs have good prospects to expand exports to the European Union over the medium-term, particularly Bangladesh, Malawi, Mozambique, Sudan and Zambia. These countries are also among the lowest-cost sugar producers. On the assumption that 50 per cent of their current production and 65 per cent of their planned future capacity becomes available for export by 2005, exports of sugar to the European Union from those countries, excluding current exports, would amount to some 1,600,000 tonnes. This figure, is at best, only an indication of the possible increase which could be envisaged in LDC exports to the European Union under EBA in the medium-term.

Therefore, estimates of the possible impact of the EBA initiative for the European sugar sector range from 900,000 tonnes to 2.7 million tonnes. Although a clear indication of the time it might take to achieve these targets is not given. Nor is the increase in European Union consumption considered. On the basis of data from the International Sugar Organization (ISO) it appears that the consumption of sugar in the 15 European Union countries has grown at the rate of 2.56 per cent annually between 1993 and 1999. Projecting that trend forward would give a total consumption of 17,663,000 tonnes in 2005 and 19,568,000 tonnes in 2009 – an increase of 2,123,000 tonnes in 2005 and 4,028,000 tonnes in 2009 – over the year 2000 consumption.[4] This does not take into account further increases that could result from the scheduled expansion of the European Union, with five countries expected to join by 2004. Seen in this light, the increase envisaged in LDC sugar exports to the European Union (even on the basis of the highest scenario – 2.7 million tonnes) would not necessarily lead to a glut of sugar on the European Union market, nor a significant displacement of existing exports.

3. Quantitative analysis

This section provides a quantitative analysis of the impact of the EBA for Mauritius. The analysis of the impact is based on 1992 Input-Output data, which provides a convenient way of measuring the direct, indirect and total effects of a reduction in sugar proceeds and the impact of these reductions sector-by-sector. Estimates of the impact of the proposal are based on four price scenarios and two price-and-acreage scenarios, with regard to the possible reductions in the proceeds of sugar exports to the European Union as a result of the opening up of that market to the LDCs. Possible scenarios include a reduction of 5 per cent of the average price of sugar in the European Union in 2003, following the duty-free import of 85,312 tonnes of LDC sugar, a further reduction of 10 per cent in the European Union price in 2005, following the duty free import of 112,824 tonnes and a further reduction of 15 per cent in 2008 and 20 per cent in 2009.

There is a large element of speculation about the magnitude and timing of the price reductions. In the previous section some reservations were expressed about the figures mentioned by the European Commission and ASSUC on the scale of the increase in imports of LDC sugar. This would depend on many factors and contingencies, the main two being:

i) The ability of the LDCs to produce a substantial increase in the production of sugar of the right quality – raw sugar for refining – and to transport this sugar to a suitable port and on board a vessel for export to Europe.

ii) The actual sugar surplus that would arise as a result of increased imports from LDCs. This is the core of the problem, as in all likelihood would require adjustment of the European Union price. It appears that the studies of the impact by the European Commission and ASSUC have not considered the increase in sugar consumption in the European Union and the effect of European Union enlargement in 2004.

Due to the uncertainties and conjectures concerning future European Union sugar prices, the approach adopted in this study was to estimate price changes. It is assumed that the technology of production and the structure of costs for each sector do not change with the envisaged reduction in the price of sugar. The focus has been on the effect of a reduction in the average price of sugar exports to the European Union, with everything else remaining unchanged. This implies that the reduction in the average price of sugar in the European Union, and consequently the fall in the value of sugar exports of Mauritius, would lead to a reduction in the value of inputs used in sugar production. The fall in the value of these inputs will lead, in turn, to adjustments in the sectors that supply these inputs. Thus, the fall in the price of sugar, in addition to the direct effect on the proceeds of sugar produced and exported, will result in a series of indirect effects which must be included in an estimate of the total effect.

The direct impact of the reduction in the European Union sugar price will fall on the sugar milling sector. On the basis of the price scenarios (table VI.2), with no change in the quantity of cane exported, the value of sugar exports to the European Union would fall by 5 per cent in 2003, 14.5 per cent in 2005, 27.3 per cent in 2008 and 41.9 per cent in 2009, on the year 2000 base.[5] This would entail a shortfall of $155.3 million in 2009 over the base year proceeds.

The price scenarios assume no change in the tonnage of cane produced and the quantity of sugar exported. However, there are strong indications that there will be a shrinkage of the acreage

Table VI.2. Direct and indirect effects of different price scenarios
(Thousands of dollars)

Direct effects	**2000**	**2003**	**2005**	**2008**	**2009**
Sugar Milling	267 256	253 893	228 503	194 228	155 382
Indirect effects					
Sugarcane	173 449	164 776	148 299	126 054	100 843
Foodcrops and fruits	0	0	0	0	0
Livestock, poultry and fishing	535	508	457	388	311
Other agriculture	3 742	3 554	3 199	2 719	2 175
Mining and quarrying	0	0	0	0	0
Sugar milling	4 009	3 808	3 428	2 913	2 331
EPZ textiles	267	254	229	194	155
EPZ non-textiles	0	0	0	0	0
Other manufacturing	15 234	14 472	13 025	11 071	8 857
Electricity, gas and water	2 940	2 793	2 514	2 137	1 709
Construction	1 604	1 523	1 371	1 165	932
Wholesale and retail trade	5 078	4 824	4 342	3 690	2 952
Restaurants and hotels	1 069	1 016	914	777	622
Transport, storage and communication	42 226	40 115	36 104	30 688	24 550
Finance, insurance, real estate & business services	9 087	8 632	7 769	6 604	5 283
Producers of government services	0	0	0	0	0
Community, social & personal services	1 871	1 777	1 600	1 360	1 088
Total indirect effects	261 109	248 053	223 248	189 761	151 809
Combined effects					
Sugar milling	271 264	257 701	231 931	197 141	157 713

Scenarios:

As from 2003, average sugar price falls by 5%

As from 2005, average sugar price falls by a further 10%

As from 2008, average sugar price falls by a further 15%

As from 2009, average sugar price falls by a further 20%

Source: Commonwealth Secretariat.

under cane over the next few years as a result of increasing land scarcity and the pressure from landowners and other quarters, including Government, to obtain a higher return from the land under cane.[5] In the price-and-acreage scenarios, a reduction in the acreage under cane has also been provided. Furthermore, it was assumed that the acreage under cane would fall by 5 per cent in 2005, following a 15 per cent fall on the year 2000 price and that acreage would also fall by a further 5 per cent in 2009 following a drop of 41.9 per cent on the base year price. The overall reduction on the year 2000 acreage would be 7,700 hectares. The modelling has also not taken into account the alternative use of land.

Thus, irrespective of any reduction in the Mauritian quota, under SPS or following the review of the Sugar Protocol, there may be a fall in the quantity of sugar exported to the European Union, which would further accentuate the decline in sugar export proceeds. There are a number of

Table VI.3. Direct and indirect effects of different price and acreage scenarios
(Thousands of dollars)

Direct effects	**2000**	**2003**	**2005**	**2008**	**2009**
Sugar milling	267 256	253 893	217 078	184 517	140 233
Indirect effects					
Sugarcane	173 449	164 776	140 884	119 751	91 011
Foodcrops and fruits	0	0	0	0	0
Livestock, poultry and fishing	535	508	434	369	280
Other agriculture	3 742	3 554	3 039	2 583	1 963
Mining and quarrying	0	0	0	0	0
Sugar milling	4 009	3 808	3 256	2 768	2 103
EPZ textiles	267	254	217	185	140
EPZ non-textiles	0	0	0	0	0
Other manufacturing	15 234	14 472	12 373	10 517	7 993
Electricity, gas and water	2 940	2 793	2 388	2 030	1 543
Construction	1 604	1 523	1 302	1 107	841
Wholesale and retail trade	5 078	4 824	4 124	3 506	2 664
Restaurants and hotels	1 069	1 016	868	738	561
Transport, storage and communication	42 226	40 115	34 298	29 154	22 157
Finance, insurance, real estate & business services	9 087	8 632	7 381	6 274	4 768
Producers of government services	0	0	0	0	0
Community, social & personal services	1 871	1 777	1 520	1 292	982
Total indirect effects	261 109	248 053	212 086	180 273	137 007
Combined effects					
Sugar milling	271 264	257 701	220 334	187 284	142 336

Scenarios:

As from 2003, average sugar price falls by 5%

As from 2005, average sugar price falls by 10% and acreage under sugarcane falls by 5%

As from 2008, average sugar price falls by 15%

As from 2009, average sugar price falls by 20% and acreage under sugarcane falls by 5%

Source: Commonwealth Secretariat.

other factors, which may influence the final results, namely a reduction in the European Union sugar quota for Mauritius and on the positive side, the allocation of land released form cane. Thus the ultimate losses for the sugar industry and the Mauritian economy may exceed or fall short of these estimates.

On the basis of the price-and-acreage scenarios (table IV.3), the value of sugar exports to the European Union would fall by 5 per cent in 2003, 18.8 per cent in 2005, 31 per cent in 2008 and 47.5 per cent in 2009, on the year 2000 base. Therefore, as the value of land for sugar declines and is used for alternative production, the loss of sugar exports world increases.

In terms of indirect effects, the largest shortfall in proceeds would be borne by the sugar cane sector. Based on the value of cane output in 2000 and assuming in the price scenarios no change in the tonnage of cane produced, the value of the cane output would drop in the same proportion as the fall in the price of sugar. The price of cane is determined by a price-sharing formula between millers and planters, based on the quantity of sugar produced from cane. This would entail a loss of $72.6 million in 2009 over the base year proceeds for the sugar cane sector.

According to the price-and-acreage scenarios, the proceeds of the sugar cane sector would drop by $82.4 million in 2009 from the base year value, which would result in a loss of $153.8 million in 2009 for the sugar milling and sugar cane sectors combined. It is an open question whether the sugar industry - the sugar milling and sugar cane sectors - would be able to sustain losses of that magnitude.

The sector which would suffer the second largest fall in proceeds would be Transport, storage and communications, which accounts for 7.2 per cent of the cost of sugar milling. On the basis of the price scenarios (table IV.3), this sector would lose an estimated $22.1 million in 2009 over the year 2000 figure.[7] Other sectors which may be relatively hard hit are other manufacturing and finance, insurance and business services, with estimated losses of $7.3 million and $4.4 million respectively. Altogether, the reduction in the price of sugar would result in an estimated loss of $419.7 million on the base year proceeds over the 2001 to 2009 period for the Mauritian economy.

D. Conclusions

The decline in the sugar export proceeds in Mauritius from the implementation of the European Union quota and duty-free access for LDCs into their market are substantial. This study has shown losses in 2009 of $184.5 million over the 2000 output for the sugar cane and sugar milling sectors combined and for the price-and-acreage scenarios an estimated shortfall of $209.5 million, entailing very heavy losses for the sugar industry. The estimated overall impact is estimated to be less significant due firstly to the decline in the weight of the sugar industry on the economy and secondly to the cautious assumptions adopted for the modeling in this chapter. While the estimated effect of the postulated price reduction on the economic growth would be relatively marginal, the size of the shortfall in sugar proceeds would accelerate the decline of the sugar industry and necessitate an urgent restructuring of the sector.

NOTES

[1] Mauritian sugar obtains special premiums from Tate and Lyle for the quality and regularity of sugar exports and a "fidelity" premium for the longstanding and harmonious relations between the two parties.

[2] SPS: Special Preferential Sugars: The quantity of SPS sugar imported by the European Union is equal to the difference between the cane sugar refining capacity of European Union member States and the quantity of sugar for refining supplied by the DOM, MFN suppliers (82,000 tonnes from Brazil and Cuba) and 10,000 tonnes under the ACP/India quota. In 2000/2001 the total SPS quota is 290,000 tonnes and the quota for Mauritius is 85,000 tonnes. In light of the EBA proposal, the local authorities foresee a substantial reduction in the SPS quota for Mauritius over the next few years and its virtual disappearance by 2006. However, according to the ASSUC (Association des Organisations Professionnelles du Commerce des Sucres pour les Pays de l'Union Européenne) the extent to which the EBA could impact negatively on the SPS would depend on how much of the increased LDC imports into the European Union comes as direct consumption sugar. The LDC producers would prefer to sell sugar directly owing to the price differential between whites and raws on the European Union market. LDC production estimates for 2000/2001 comprise only 85,000 tonnes of bulk sugar for refining, as compared with 2,289,000 tonnes of bagged sugar (raws and whites) not for refining.

[3] The ASSUC study, EBA-An Impact Assesment for the Sugar Sector, is available online at www.sugartraders.co.uk.

[4] The increase in European Union consumption comes to a large extent from industrial users.

[5] In line with the concept of proportionality, which is a fundamental characteristic of I/O methodology, the same relative decline in proceeds would apply to other sectors, although the magnitude of the shortfall in each case will depend on the importance of the inputs used in sugar milling operations.

[6] The sale recently by the South African ILLOVO Company of their majority share-holding in three sugar estates to a local consortium in which Government has a 35 per cent stake, will involve the conversion of large tracts of prime sugar cane land for residential and other projects. This deal could accelerate the conversion of cane land elsewhere in Mauritius.

[7] Assuming that transport and storage charges are linked to the value of cane and sugar carried and stored.

CHAPTER VII

CONCLUSIONS AND POLICY IMPLICATIONS

Non-reciprocal preferential market access is one policy tool identified as having a beneficial impact on the development process of LDCs. Despite the current level of such preferences, LDCs have only just received complete duty- and quota-free market access (except in arms) into the European Union and still face barriers to approximately fifty per cent of their exports into Canada, Japan and the United States.

This study analyzed the impact of the EU-EBA policy to grant duty- and quota-free market access to the LDCs on the European Union, LDCs and selected third party countries. The study also examined the implications that may arise if Canada, Japan and the United States were to adopt a similar policy and extend their current preference schemes to cover all goods from LDCs, except arms. The analysis was conducted using three different methodologies: computable general equilibrium (CGE) modeling; disaggregated analysis; and case studies.

A. Implications for LDCs

The result that emerged throughout the study was that duty- and quota-free market access will benefit LDCs. The sources of the benefits to LDCs are both improved terms of trade (associated with higher export prices in donor countries' markets) and improved allocation efficiency. The study also shows that the potential benefits to LDCs in terms of export diversification may be important. The European Union has, for years, granted better market access to LDCs compared with other Quad countries. Consistently, LDC exports to the European Union appear to be both larger in value terms

and more diversified. LDCs export to the European Union in 2,222 HS6 lines, whereas the equivalent number of lines in which they export to the remaining Quad members are 758 (Canada), 545 (Japan), 946 (United States).

A major finding was that the size of benefits to LDCs increase disproportionately with the scope of market access was (with the lowest level of benefits arising if only the European Union adopts complete duty- and quota-free market access). There are two main reasons explaining this result. First, the pre-EBA barriers to LDC exports are lower in the European Union than the other Quad members. Second, the pattern of protection in Quad countries is highly complementary. The European Union and Japan have a bias toward agricultural protection, whereas the United States and Canada mostly protect textiles and apparel. It follows that coordinated action from the Quad would stimulate LDC exports in a broader range of sectors and would spread substantial gains across a higher number of LDCs.

Taking advantage of the enhanced market access will require restructuring in beneficiary countries. This is an inevitable consequence of any trade policy initiative. As a consequence of the EU-EBA, some agricultural sectors such as rice and sugar will expand significantly in LDCs. If the remaining Quad countries also grant duty- and quota-free access to LDC exports, not only will the expansion of LDC agricultural exports be broader and more diversified, but textiles and apparel exports will also be stimulated significantly. This should result in the movement of resources in LDCs out of manufactures production. It should be noted that the results obtained from CGE analysis may overestimate the actual extent of sectoral reallocation in LDCs – supply rigidities and bottlenecks associated with a poor working of factor markets are relevant in these economies, which are neglected in CGE analysis. Moreover, even admitting full sectoral adjustment in LDCs, an overestimation of sectoral effects of preferential market access may be associated with the presence of complex rules of origin. As pointed out in the Bangladesh case study, sometimes the utilization rates of preferential schemes may be low or very low, because of problems in the compliance with the rules established by the donor country – CGE modeling neglects such problems.

B. Implications for donor countries

The study shows that the impact of deepening and broadening market access on Quad countries is small. In the case of the European Union, only 3 per cent of LDC exports to that market actually face a tariff and these are concentrated in a few sectors. Even in sugar, a sensitive sector, the percentage decline in value added is less than 3 per cent. The welfare effect in percentage terms is not significantly different from zero. Similar negligible results are evident for Canada, Japan and the United States, when all these countries are assumed to implement duty- and quota-free access to LDC exports.

Perhaps the most relevant result is that the relative size of losses to the Quad donor countries is extremely small when compared to the relative gains to the LDCs. Furthermore, CGE analysis highlights that the terms of trade losses in donor countries are mitigated to a certain extent by allocative efficiency gains associated with tariff reductions.

C. Implications for other developing countries

Any trade policy that involves a degree of discrimination will necessarily have an effect on coun-

tries that are neither beneficiaries nor donors. Non-reciprocal agreements are no different in this respect. Whether third countries stand to lose or gain is difficult to say a priori. Much depends on whether exports from third countries substitute or complement those of beneficiary countries. In order to assess the extent to which exports from third countries substitute those of LDCs in donor countries' markets, the CGE analysis was complemented by sectoral analysis conducted at a finer level of disaggregation. .

CGE analysis shows that duty- and quota-free market access for LDCs will be associated with losses for several groups of developing countries, notably in Africa, Asia and Latin America. Both, in the case of EU-EBA and an integrated Quad initiative losses to third countries are expected to be negligible in percentage terms. Moreover, losses to Developing Africa are driven to zero if duty- and quota-free access is granted by all Quad countries.

In order to account for substitution relationships occurring at a finer level of sectoral disaggregation, export similarity indexes have been computed. Analysis shows that LDC exports to Quad countries are similar to those of Developing Africa and to a lesser extent, to those of Latin American countries. This evidence is consistent with that obtained from CGE analyis.

Developing countries that currently obtain preferences into the European Union (especially non-LDC ACP members) are among the third countries that will be impacted by the EU-EBA policy. The study highlights the stake of this particular group of countries by means of a case study on Mauritius. Mauritius benefits significantly from exporting sugar to the European Union at prices that are about two and one-half times those on world markets. The study shows that the EBA policy may lead to a significant erosion of the market share of Mauritius in the European Union sugar market.

D. Conclusions

This study shows that the implementation of the Everything But Arms initiative by the European Union will have positive benefits to LDCs. Losses to the European Union are negligible, as are the losses to non-LDC developing countries. If the EBA initiative is implemented by the remaining Quad members, a larger number of LDCs will benefit from better market access in developed countries' markets and the gains to LDCs will be much higher.

This conclusion holds with two major caveats. First, it is important that both the Governments of LDCs and that the international community ensure LDC economies manage to exploit efficiently the opportunities offered from reduced protection in developed countries' markets. Dismantling existing protection should be considered as a necessary, though not sufficient condition for improved LDC export performance. "Behind the border" measures aimed at improving technical and institutional infrastructure may be required to make better market access effective. Second, the size of the gains to LDCs, although significant, are not sufficiently large to lift them out of their current levels of GDP. In this regard, market access openings, if they are to occur, should be viewed as elements of a broader strategy for development.

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