MARKET ACCESS, TRANSPARENCY AND FAIRNESS IN GLOBAL TRADE

EXPORT IMPACT FOR GOOD 2010

International Trade Centre

EXPORT IMPACT FOR GOOD

The International Trade Centre (ITC) is the joint agency of the World Trade Organization and the United Nations.

Street address: ITC
54-56, rue de Montbrillant
1202 Geneva, Switzerland

Postal address: ITC
Palais des Nations
1211 Geneva 10, Switzerland

Telephone: +41-22 730 0111

Fax: +41-22 733 4439

E-mail: itcreg@intracen.org

Internet: http://www.intracen.org

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First of an annual series on market access issues, focusing on reducing global poverty by improving market entry for developing countries and fairness in trade – discusses trade transparency and fairness in the context of global trade; highlights key market access issues for developing countries such as tariffs, non-tariff measures and the utilization of preferences; examines the relationship between export development and poverty reduction, and outlines implications for both developing country policies as well as international measures to improve markets; presents an analysis of the outcomes and impact of 'Fair Trade' voluntary standards on producers and exporters in developing countries; includes statistical data, and bibliography (pp. 136–144).

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FOREWORD

The International Trade Centre seeks to promote export impact for good – a normative position that recognizes that mere exporting in itself is not enough. Through supporting and facilitating export development in developing countries, we seek to contribute to enhancing value added and welfare in developing countries and contribute to achieving the Millennium Development Goals (MDGs).

Improving market access and market entry for developing countries will improve fairness in global trade because it will contribute to reducing global poverty. Developing countries need to export more in order to boost growth and reduce poverty and provide opportunities for wealth creation in their domestic markets, which are typically small. Moreover, across developing countries a large share of the growth will be needed for investments in infrastructure, both 'hard' and 'soft', in order to build up countries' competitive advantages. Hence, developing countries will typically only realize slow domestic consumption growth in the short and medium term – but export development can boost growth prospects. Halving poverty and achieving other MDGs, with the set back of the global financial crisis, will therefore critically depend on improving market access and entry to large and dynamic markets.

Actions to be taken will have to be international as well as regional, national and bilateral, notably including the conclusion of the Doha Round while irreversibly securing the commitments to improved market access and entry. This ITC report on *Market Access, Transparency and Fairness in Global Trade: Export Impact for Good 2010*, the first of an annual series on market access issues, provides conclusive evidence that 'market access begins at home'. It also argues that further reducing barriers to trade between developing countries will have to be an essential part of the way forward.

Non-reciprocal preferences for designated groups of countries, in particular least developed countries (LDCs), must continue to be supported and expanded. But the main instruments to achieve improved market entry will have to include interventions to ensure that the capacity to produce for export is improved. The goods and services offered by developing country exporters must be aligned to products and services demanded by consumers and companies at prices permitting reasonable profits and decent work across developing countries.

While our understanding of the functioning of markets has improved dramatically over the last three decades, our practical knowledge of how to succeed in export markets is still poor. Limited access to trade intelligence continues to hamper developing country trade and exports. Therefore, this report calls for improved trade transparency. This includes reducing regulatory discretion about tariff and non-tariff measures, improved participation in the setting of standards, better analysis of the incidence and impact of non-tariff barriers, as well as better information about preferential and regional trade agreements, which often overlap in inconsistent ways.

Evidence is provided throughout this report that:

- Poverty reduction will require export development
- Duties paid on imports from developing countries still remain high – in excess of $50 billion during 2008, a sum greater than all aid-for-trade assistance; tariff levels and structures continue to be a formidable barrier to trade in many sectors, while non-tariff measures are proliferating
- Improved trade transparency, especially about non-tariff measures and private standards, will be a major step towards greater fairness in global trade.

I am excited about this new ITC series with its focus on export development and market access and entry issues and would like to warmly thank all the contributing authors and analysts from within ITC, in particular our Lead Economist Willem van der Geest, as well as the authors from academic and policy research institutes.

Patricia Francis
Executive Director
International Trade Centre

ACKNOWLEDGEMENTS

This report was prepared under the overall direction of Willem van der Geest, ITC's Lead Economist. Contributions were made by staff from the ITC's Market Analysis and Research section, working closely with invited authors from research and academic institutions.

Chapter I focuses on the key conceptual discussion of trade transparency and fairness in global trade and its main author was Prof. Francis Snyder, C.V. Starr Professor of Law, Peking University School of Transnational Law, Shenzhen, China; and Visiting Professor, London School of Economics.

Chapter II on tariffs, non-tariff measures and preference utilization was prepared by a team of ITC's in-house market analysts, in particular Kerfalla Conte, Yvan Decreux, Takako Ikezuki, Brian Jackson, Olga Skorobogatova and Xavier Pichot. Jorge Nunez Ferrer of the Centre for European Policy Studies in Brussels contributed to the analysis of tariff peaks and tariff escalation.

Chapter III on export development and poverty reduction was prepared by Prof. Massoud Karshenas, School of Oriental and African Studies, University of London, with contributions from Willem van der Geest and Brian Jackson of ITC.

Chapter IV on voluntary standards was prepared by Oliver von Hagen, Associate Expert of ITC, working closely with his colleagues from the Trade for Sustainable Development programme of ITC.

The statistical annexes, drawing on ITC's publicly available databases, were prepared by Kerfalla Conte, Brian Jackson and Xavier Pichot. Prof Bernadette Andreosso O'Callaghan, University of Limerick, contributed to chapter V on trade vulnerability.

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NOTE & ABBREVIATIONS

Unless otherwise specified, all references to dollars ($) are to United States dollars, and all references to tons are to metric tons. The following abbreviations are used:

ACP	African, Caribbean and the Pacific
AGOA	African Growth and Opportunity Act
ALADI	Latin American Integration Association
ASEAN	Association of Southeast Asian Nations
ATPA	Andean Trade Preference Act
AVE	ad-valorem equivalent
BEC	broad economic categories
BRICS	the emerging economies of Brazil, Russian Federation, India, China and South Africa
CBI	Caribbean Basin Initiative
CIRAD	Centre de coopération internationale en recherche agronomique pour le développement, a French research centre working with developing countries to tackle international agricultural and development issues
DC	developing country
DDA	Doha Development Agenda
DFQF	duty-free quota-free
DTIS	Diagnostic Trade Integration Study
EAC	East African Community
EAOPS	East African Organic Product Standard
EBA	Everything But Arms
EC	European Commission
ECOWAS	Economic Community of West African States
EFTA	European Free Trade Association
ERP	effective rate of protection
EP	European Parliament
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FDI	foreign direct investment
FINE	an umbrella association for Fair Trade organizations
FTA	free trade agreement
FLO	Fairtrade Labelling Organizations International
FSC	Forest Stewardship Council
GATS	General Agreement on Trade Services
GATT	General Agreement on Tariffs and Trade
GlobalG.A.P.	Global Good Agricultural Practices
GPA	Agreement on Government Procurement
GSP	generalized system of preferences
GTAP	Global Trade Analysis Project database
HS n	the Harmonized System n-digit specification of goods in international trade
ICO	International Coffee Organization
IIT	intra-industry trade
ILO	International Labour Organization
IMF	International Monetary Fund
ISEAL	association for social and environmental standards
ITC	International Trade Centre
HHI	Hirschman-Herfindahl Index
LDC	least developed country
LLDC	landlocked developing country
MAcMap	Market Access Map
Mercosur	Mercado Común del Sur
MFN	most favoured nation
NAFTA	North American Free Trade Agreement
NAMA	non-agricultural market access
NEWS!	Network of European Worldshops
NGO	non-governmental organization
NTBs	non-tariff barriers
NTMs	non-tariff measures
ODA	official development assistance
OECD	Organisation for Economic Co-operation and Development
PII	poverty intensity of imports
PPP	purchasing power parity
PTA	preferential trade agreement
RASFF	Rapid Alert System for Food and Feed
RoO	rules of origin
SDT	special and differential treatment
STDF	Standards and Trade Development Facility
SPS	sanitary and phytosanitary standards
TCMCS (UNCTAD)	Trade Control Measures Coding System
TBT	technical barriers to trade
TPR	trade policy review
TRQ	tariff rate quota
TRTA	trade-related technical assistance
TSI	trade support institution
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organization
USA	United States of America
WB	World Bank
WFTO	World Fair Trade Organization
WTO	World Trade Organization

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OVERVIEW

EXPORT DEVELOPMENT AND REDUCING GLOBAL POVERTY

In its examination of ways to improve market access, transparency and fairness in global trade, ITC has applied a new methodology offering more accurate estimates of global poverty distribution and the impact of export growth on poverty.

These new estimates by ITC present an unbiased picture and indicate that poverty reduction results from greater integration in the world economy. At the same time the new estimates avoid over-estimating the gains from globalization that occurs when we look merely at GDP growth per capita, rather than household income and consumption.

Our key findings therefore demonstrate a strong linkage between export development and poverty reduction. Poor countries cannot grow and reduce poverty without exports – thus market access and market entry are critical.

Lack of market access and entry, together a central issue in this report, remain important contributing factors in inhibiting a large number of countries on the lowest rungs of the poverty ladder from escaping mass poverty.

THE GLOBAL SCENE: UNCERTAIN RECOVERY

The latest trade data indicates a continued trade recovery, in value and volume terms, for BRICS (Brazil, Russia Federation, India, China and South Africa), other developing countries and least developed countries (LDCs) during the first half of 2010. But the risk remains of continued downward pressure on some prices, especially minerals. At the same time, other commodities, especially food items, have experienced price hikes and volatility, while a scenario of slow global growth remained most probable. A high degree of uncertainty still characterizes prospects for the global economy.

Global export performance during 2009 showed a decline in value of 23%. Although signs of recovery were undeniably present, by the end of 2009 global export values had not yet recovered to their 2007 levels. Overall the impact of the global financial crisis on global exports was most felt in the developed world – with a decline of 7.6% over the period 2007 to 2009. Developing countries fared a little better, losing only 4%. Within this group, the emerging economies of Brazil, Russian Federation, India, China and South Africa (BRICS) as well as LDCs posted a better than average performance. Similar observations may be inferred if we look at global exports excluding crude oil. The WTO reports that global volumes of merchandise exports declined by 12.2% during 2009, indicating a global unit price decline of 12.4% as compared with 2008.[1]

That no major protectionist measures have been implemented during the global financial crisis shows that the rule-based international trading system has been robust enough to resist domestic political pressures for such initiatives. The rule-based international trading system appears to have passed a severe 'stress test' with a comforting degree of resilience.[2] However, concern about the possible trade-distorting impact of stimulus packages and measures remains.[3] Policymakers have repeatedly expressed a preference for measures that would favour the creation of jobs in the domestic economy rather than supporting companies that outsource their operations. Such preferences carry the unfortunate potential to deteriorate into trade-distorting measures, even if indirectly.

Global trade performance during the first half of 2010 reaffirms the picture of solid trade recovery. Imports by the OECD, the EU-27, the BRICS plus several other fast growing middle income countries, substantially bounced back from the bust of the first half of 2009. The import growth during January to June 2010, compared with the same period in 2009, amounts to 23.1% in value terms and 24% in volumes (excluding crude oil). While the non-oil imports of the reporting countries had been reduced to $3.9 trillion during the first six month of 2009, the same period for 2010 reported an increase to $4.8 trillion. The export growth realized during the first half of 2010 restores the value of

exports to its end of 2008 level and would be consistent with the WTO's projection of a volume growth of 13.5% for 2010.[4]

China was the most important supplier with a global non-oil market share of 11.5%, closely followed by Germany with 10.4%, while the United States was the third largest supplying country with a 6.8% global market share. China rebounded more swiftly than Germany, realizing a recovery of 25.5% in value terms, whereas Germany recorded 17% during the first half of 2010. Japan, Republic of Korea and Mexico, from amongst the OECD countries, each realized an approximate 37% export earnings rebound, considerably above the performance of most European countries. But Indian and Malaysian export earnings rebounded even more swiftly with their values increasing respectively 47% and 45% over the same period in 2009.

Looking at the first half of 2010 by products, again excluding crude oil, the bounce back was consistent with a 1% overall per unit decrease of the non-oil imports of these major importers. While unit prices in some primary product groups substantially gained – such as copper and iron ores – the single largest imported product category – electrical and electronic equipment – experienced a 10.2% decrease in its unit value as compared with the same period in 2009. Though changes in the product composition explain part of this, lower unit prices for the same products explain part of this decline as well. Apparel articles unit price faced decreases of about 4.6%, comparing year-on-year, while footwear lost some 2.5%.

Table 1: Export performance of selected partners with major partners ($ billions)

	Value of exports			Growth in value			Growth rate		
	Including crude oil								
	2007	2008	2009	2008	2009	2007–2009	2008	2009	2007–2009
LDC	116.57	166.80	116.89	50.23	-49.91	0.32	43.09%	-29.92%	0.14%
BRICS	2 057.20	2 413.82	1 989.83	356.62	-423.99	-67.37	17.34%	-17.57%	-1.65%
Developing	5 492.74	6 571.00	5 052.31	1 078.26	-1 518.69	-440.43	19.63%	-23.11%	-4.09%
Developed	7 265.50	8 062.84	6 203.96	797.34	-1 858.88	-1 061.54	10.97%	-23.05%	-7.59%
World	12 835.92	14 733.22	11 330.55	1 897.30	-3 402.67	-1 505.37	14.78%	-23.10%	-6.05%
	Excluding crude oil								
	2007	2008	2009	2008	2009	2007–2009	2008	2009	2007–2009
LDC	53.18	63.80	58.37	10.62	-5.43	5.19	19.97%	-8.52%	4.76%
BRICS	1 949.42	2 260.34	1 881.53	310.92	-378.81	-67.89	15.95%	-16.76%	-1.76%
Developing	4 615.98	5 281.54	4287.57	665.56	-993.96	-328.41	14.42%	-18.82%	-3.62%
Developed	7118.25	7859.12	6081.48	740.87	-1 777.64	-1 036.77	10.41%	-22.62%	-7.57%
World	11 806.75	13 231.83	10 438.22	1 425.09	-2 793.62	-1 368.53	12.07%	-21.11%	-5.97%

Source: ITC Trade Map.

Table 2: Export value and volume growth rates, selected products ($ billions) – 2009–2010 (first half)

Products-Group	Value, 2009 Q1-Q2	Value, 2010 Q1-Q2	Value growth Q1-Q2	Volume growth Q1-Q2
All commodities	3 878	4 774	23.1	24.0
Electrical, electronic equipment	543	699	28.6	41.7
Machinery, boilers, etc	520	618	18.9	26.0
Mineral fuels, oils, distillation products, etc	310	399	28.6	12.9
Vehicles other than railway, tramway	292	388	32.9	34.7
Pharmaceutical products	163	188	14.9	11.7
Plastics and articles thereof	135	179	32.4	23.8
Optical, photo, technical, medical, etc. apparatus	142	175	23.9	34.7
Organic chemicals	127	160	25.8	26.1
Iron and steel	90	127	41.5	39.6
Other commodities	1 556	1 840	18.3	16.7

Source: ITC Trade Map.

CLASSIC TARIFF ISSUES STILL TO BE RESOLVED

This report analyses the relationship between tariff structures and export performance – reviewing issues of tariff peaks and escalation. While these issues have been addressed through the trade liberalization agenda, important unfinished business remains. The report looks at changes and effects through data for 1996 and 2008, and it has plotted the share of processed vs primary exports in agriculture over time. These suggest a big fall in tariffs for developing countries, especially in agricultural products. Access to major importing countries seems to have improved for developing nations, at least in terms of tariffs. Has this been reflected in growing trade flows? Our comparisons indicate that special trade concessions to LDCs through the non-reciprocal lifting of tariffs have raised the share of processed exports by about 5%. Half the exports from developing countries come from BRICS and LDCs, but account for only 1.2% of the exports from the developing country group as a whole. LDCs that have a very high share of agriculture in their exports do not record higher trade growth than other developing countries despite tariff liberalization for this group in recent years.

Although substantial progress has been made in reducing tariff barriers, the report demonstrates that the 'classic issues' of tariff peaks and escalation are yet to be fully resolved. During 2008 duties on imports from LDCs still amounted to $1.4 billion for market access to the richest countries, almost as much as the estimated $1.6 billion in duties saved through special non-reciprocal preferences for LDCs.

ITC computed the tariff duties paid on imports from developing countries during 2008 to four of the major global markets – the EU, the United States, Canada and Australia. These amounted to $50.1 billion. The largest duty payments were made on imports from China – the largest developing country exporter. The amount is estimated at $25.3 billion. Duties paid on imports from India and Brazil each were to the tune of $2.2 billion.

Furthermore, evidence is presented showing that non-tariff measures (NTMs) are a significant problem for exporters from developing countries, along with tariff peaks and escalation practised by developing as well as developed countries.

BUSINESS SURVEYS ON NON-TARIFF MEASURES

ITC carried out phone screening and follow-up face-to-face surveys of businesses in twelve countries to learn from exporters themselves which non-tariff measures (NTMs), increasingly important in trade, are considered most burdensome by firms and represent non-tariff barriers (NTBs). This work is continuing in another fifteen countries.

The survey results suggest that a major proportion of companies – by no means only small businesses – are affected by NTM-related problems. The impact is most serious for companies exporting from landlocked developing countries (LLDCs). Difficulties with NTMs applied by partners in the home regions as well as domestic impediments constitute a large share of reports. These NTMs range from procedural obstacles to bottlenecks

resulting from poor export-support facilities and a non-conducive business environment.

Somewhat unexpectedly, a number of developing countries were reported as among the most difficult importing markets. Strikingly, most of these developing partner countries are located in the same region and are members of the same trade agreements as the corresponding surveyed country. The United States and EU are not the most difficult partners if NTM incidence is weighted by the value of bilateral exports.

The surveys suggest that exports to countries in Africa and Latin America and the Caribbean were relatively more affected by inspections, formalities and charges, while exports to other regions — in particular to developed countries — were subject to technical measures that focused on the characteristics of the specific product and production process.

The NTM surveys have produced two important results.

1. There is a large scope for domestic reform and improvement in institutions and policies: market access begins at home.
2. A trade-conducive business environment is a cornerstone to improving companies' export competitiveness.

FINDINGS AND RECOMMENDATIONS

Several main findings of the report are summarized here, with policy recommendations highlighted in bold:

FAIRNESS AND TRANSPARENCY IN TRADE

- Legal and other rules, including WTO, EU and national laws, have been oriented towards providing fairness in trade in the procedural sense. Nevertheless, an adequate legal framework does not yet exist in international, regional or national law for ensuring *distributional* fairness in trade.
- **A trade-conducive business environment is a cornerstone of improving companies' export competitiveness, translating into more successful national export performance. It is also emphasized that 'market access begins at home': there is a large need and scope for domestic reform and improvement in institutions and policies.**
- Preference programmes for developing countries generally enjoy a high rate of use. Preference utilization in the United States market reached 97% in 2008, followed by Canada at 89%, Australia at 86% and 80% in the EU. However, individual beneficiaries vary greatly in the extent to which they can take advantage of preferences. For example, the overall value of preferences to LDCs, that is, the import duties they avoided, amounted to $1.6 billion in 2008, representing 2.3% of total exports. At the same time, it is estimated that approximately $1.4 billion in duties was paid on imports from LDCs, notwithstanding duty-free quota-free preference schemes.
- **Removal of duties and quotas on all products and less restrictive compliance requirements, such as rules of origin (RoO), could produce more effective preference programmes.**
- Non-tariff measures (NTMs) are proliferating – driven by the increasing sophistication of markets as well as consumer demands. Some non-tariff barriers (NTBs) have emerged as a consequence of NTMs, while others bear no relation to any NTMs.
- **To facilitate trade in this context will require greater transparency surrounding NTMs, reducing the cost of compliance, and supporting capacity building to address the measures.**

OPTIONS FOR POVERTY REDUCTION

- China's experience has shown that export development and poverty reduction can go hand-in-hand. But apart from China and a few others, imports from other developing countries have dropped significantly. Poor households in LDCs in particular receive only a tiny portion of global trade revenues, and in most cases their share is flat or has been declining since 1990.
- Policies that inhibit the access of poor country exporters to international markets jeopardize the sustainability of growth in these countries, or at least increase the cost of growth in terms of current consumption foregone, and hence are poverty-increasing. The report analyses a sample of 88 countries for which long-term poverty incidence trends could be estimated based on data from income surveys. These estimates were matched to the trends of their growth and export performances.
- **Countries with a high incidence of poverty have no option except a growth-cum-export strategy to reduce poverty. Redistributive policies to reduce poverty further are only a distinct option for countries that have already achieved a moderate or low incidence of poverty as well as higher per capita incomes.**

RESILIENCE TO TRADE SHOCKS

- Vulnerability in trade is an important consideration for developing countries. Export diversification, price stability and intra-industry trade (IIT) are three vital indicators of resilience to external shocks.
- Export diversification is generally higher for emerging economies than it is for LDCs and other developing countries. Some LDCs, such as Bangladesh, have been

able to successfully diversify their export structure over time, making them less vulnerable to economic shocks.

- Emerging economies enjoy a lower degree of price instability for exports over the time period analysed here (1995-2008), again making them less vulnerable.
- Finally, intra-industry trade (IIT) is relatively high (and increasing) for emerging economies, whereas it is low and decreasing for the other two groups of countries, an indication of relative vulnerability. But even in emerging economies, some countries also record low IIT indices and low export diversification indices (e.g., the Russian Federation).
- Taking a wider picture of vulnerability, it is noted that savings ratios indicate an increasing savings gap between emerging economies on the one hand and LDCs and other developing nations on the other, giving emerging economies a greater ability to use their financial reserves in times of economic downturn or crises.
- **Growth performance will not be sustained if the growth of value added from exports is not sustained. Success depends on international measures. These include:**
  - Aid for trade, particularly for LDCs in sub-Saharan Africa, not only to build capacities for export growth, but also to make it possible to have an inclusive growth process (e.g., finance and know-how for building infrastructure, factor and product mobility, information and trade intelligence, etc.).
  - Improved market access to major markets, especially for the poorest countries.
- As for the trade vulnerability of emerging and developing nations, it follows from our analysis that appropriate policy measures should encompass a number of actions in different areas including, but not limited to, trade policy. Export diversification, increasing IIT (intra-industry trade) and finding greater resources for cushioning adverse external effects imply a number of policy measures in other areas such as industrial and technology policy, financial policy and educational policy.

RESPONSIBLE RETAILING

- Non-governmental organizations (NGOs), consumers and the media have increased pressure on brand producers to act in a more responsible way. Yet the ability of exporters from developing countries to successfully participate in and benefit from these programmes is uncertain. Overall, there is a lack of evidence as to the circumstances under which certification is an efficient and effective tool to foster sustainable development and to improve livelihoods.
- **An increased understanding of how voluntary standards influence developing country exports and the opportunities and the risks they entail will be crucial in designing policies and support mechanisms that enable producers and exporters to deal effectively with this new paradigm in trade when seeking to improve the sustainability and distributional fairness of global trade.**

BOX 1: Fair Trade, fair trade and fairtrade

Researchers use three almost identical terms when discussing fairness in trade. Their research often relates only to one of several aspects of fairness in trade.

In international negotiations, fair trade usually refers to trade conducted according to transparent rules that do not put one exporter at an advantage or disadvantage over another – the key principle of non-discrimination.

Fair Trade is the name usually given to the movement that seeks to distribute more of the benefits of trade to countries and producers in the developing world for the goods they export. Access to marketing channels set up by the Fair Trade movement often comes with conditions: requiring producers to spend part of the returns on social welfare. Fair Trade is a marketing label, a distribution channel and a system for putting export revenues into development, as well as a means of delivering better returns directly to producers. Most of the organizations are linked in an umbrella association called FINE.

Fairtrade is a label that refers to the practices of an international community of organizations that apply similar principles in the name of Fair Trade and belong to Fair Trade Labelling Organizations International (FLO).

The Fair Trade movement seeks to deliver fairness in trade in the distributive sense, but faces major challenges in doing so. Producers may still receive only a tiny share of the price of goods at the retail level. Small farmers may be required to make heavy and risky investments in meeting fairtrade standards. Their concentration on primary products with a low value added may remain unchanged. Only a small proportion of farmers' produce may be accepted at Fair Trade prices. The retailers may realize a heavy mark-up on fair-trade products. Consumers often believe that producers are realizing greater benefits than is actually the case.

FAIR TRADE COSTS AND BENEFITS

- Recent economic research challenges conventional views that the Fair Trade movement conflicts with concepts of rational action and efficient resource allocation. Economic sociology makes room for altruism and fairness in its description of market behaviour.
- The appeal of Fair Trade is undeniable: Fair Trade and organic markets are growing at double and triple the rate of conventional markets in many categories. Non-regulatory Fair Trade requirements are becoming increasingly standard – covering at least 76% of fresh fruit and vegetable sales in Europe and 70-90% of fresh produce imports from Africa.
- But the trend toward privately set standards raises several questions: about the increased costs of compliance with demands that go beyond regulatory requirements, the potential anti-competitive behaviour of dominant firms, and private standards as *de facto* non-tariff barriers to trade, particularly for small producers in developing countries. Certification can cost one-third of a small farmer's annual income, even when exporters and donors paid for auditing, external certification, training and soil analysis.
- Only six of 37 studies of certification impacts have been judged as providing methodologically sound evidence of socio-economic or environmental benefits for producers. Eight found no observable impact. It should be noted that with the exception of Fairtrade, voluntary standards do not guarantee a price premium, but the studies do indicate that higher prices can be paid for meeting other standards as well.
- A study of Fairtrade coffee in Nicaragua found that consumers in Europe paid 34% more but the producers received only 4% more. Premiums on organic or Fairtrade bananas have ranged from 15-50% for producers, while retailers charged 50-100% more. In Kenya, many farmers dropped out of good agricultural practice certification in 2006, because of the difficulties of compliance and the costs.
- **Even when improved conditions can be guaranteed under ethical standards, the proportion of produce sold as certified is not. This can leave producers investing in the reforms and certification costs but ultimately selling much of their produce through conventional channels.**
- **Reliance on external donor funding makes the system fragile and unsustainable in the medium to long run.**

IMPROVING FAIR TRADE

As a result of our investigations, we came to a number of conclusions designed to make the system more effective:

- International institutions should encourage private standards bodies to adopt a transparent framework for developing and identifying fair trade standards.
- A legal framework should also be agreed for private standards. The WTO Committee on Sanitary and Phytosanitary Standards has already surveyed countries for their experience with private standards, after concerns raised by developing countries.
- Standards organizations have initiated a process that includes agreeing on mutual recognition and equivalence arrangements to foster the harmonization of standards. But further measures, such as certifiers offering certification against a number of standards, are needed to reduce the costs and complexity of multiple certifications.
- Institutions supporting producers need to increase efforts to support producers and exporters when engaging in voluntary standards since the ability of exporters to meet requirements set by voluntary standards largely depends on enhanced capabilities at farm level. This should include training on good production practices, efficient and productive farm management, quality improvement, and general business skills.
- Institutional support should also back regional and national producer organizations in knowledge sharing, organizing transport, pooling volumes, improving infrastructure, including storage facilities, and enhancing strategic decision-making by providing critical market information.
- Governments are increasingly becoming involved as buyers of sustainability certified products. An increased understanding of how voluntary standards influence developing countries' exports and the opportunities and the risks they entail will be crucial in designing policies and support mechanisms that enable producers and exporters to deal effectively with this new trade.


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CHAPTER I

TOWARDS FAIRNESS AND TRANSPARENCY IN GLOBAL TRADE

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TOWARDS FAIRNESS AND TRANSPARENCY IN GLOBAL TRADE

Our analysis is based on two premises: first, institutions and rule setting are essential for achieving fairness and transparency in international trade, and second, institutional cooperation can strengthen deliberations and decision-making processes. In order to enhance fairness in international trade, we need to strengthen existing relations between the WTO and other international institutions, increase inter-institutional cooperation in the production of norms, expand the use of WTO observer status and make increased cross-reference to non-WTO norms in WTO dispute settlement possible.[5] Fairness in trade may also require a sharper focus on social solidarity ethics, which is defined to include the values of development, respect for the environment and social justice.

These proposals involve an institutional strategy oriented toward relations between the WTO and other international institutions, instead of being oriented only toward WTO internal structures, such as institutions, norms, and dispute settlement processes. Closer coordination between 'sites of governance', including the WTO, is required if the objective is to enhance social solidarity ethics and achieve real improvements in fairness in trade. This is not a search for ideal justice, but rather a more modest plea for eliminating unjust arrangements. In the words of Amartya Sen:

> *"When people across the world agitate to get more global justice – and I emphasize here the comparative word 'more' – they are not clamouring for some kind of 'minimal humanitarianism'. Nor are they agitating for a 'perfectly just' world society, but merely for the elimination of some outrageously unjust arrangements to enhance global justice, as Adam Smith, or Condorcet or Mary Wollstonecraft did in their own time, and on which agreements can be generated through public discussion, despite a continuing divergence of views on other matters."*[6]

TRADE TRANSPARENCY AND FAIRNESS IN GLOBAL TRADE

In determining the meaning of the terms 'trade transparency' and 'fairness in trade', we opt to begin with the terms in a legal context, because their use in legal instruments has a more precise meaning than in political or philosophical discourse.[7] We take the term 'trade transparency' to mean transparency in the law governing international trade. Transparency is defined as 'the condition of being transparent'; which means 'allowing light to pass through so objects behind can be distinctly seen' or 'obvious or evident'.[8]

TRADE TRANSPARENCY

Three different sets of meanings in the term 'trade transparency' may be identified. A first set of meanings refers to the extent to which the legal instruments governing international trade are known, clear and comprehensible to the parties. Here we are concerned not only with the clarity of expression in the text itself but also with certain preconditions that make it possible for the parties to know and understand the text. Among the most important of these conditions are:

- The publication of documents
- The right to receive notification of the text or changes affecting it or its implementation
- The right and the capacity to participate in decision-making
- The right to have access to relevant documents, to ask questions about them and to be able to read documents in one's own language.

These and other similar conditions can be characterized as basic principles of administrative law.

A second set of meanings refers to the extent to which the objectives and purposes of the treaty, for example as expressed in its preamble, are reflected adequately in its

text. Here we are concerned with the relationship between general objectives and specific provisions and the extent to which broad and often vague rhetoric is translated into particular, precise and enforceable legal obligations.

A third set of meanings concerns the extent to which the objectives and purposes of the treaty are respected and achieved sufficiently in its application and implementation. This meaning differs from the prior two, because it is not concerned solely with the text of the legal instrument. It goes beyond it to refer to its practical effects, the social processes of trying to ensure that the law is effective (or not) and how to explain gaps between the law on the books and the law in action.[9] To some extent this goes beyond the usual competence of the law, bringing economic, social and political considerations into play.

The three sets of meanings, though distinct, are interrelated. For example, the extent to which a legal instrument is known, clear and comprehensible to the parties has a real effect on the extent to which its basic objectives are reflected in the treaty text, through negotiation on detailed provisions for example, and also on the extent to which these aims are achieved in practice. Conversely, the extent to which objectives are reflected in the treaty text and the extent to which they are achieved in practice inform and condition the extent to which the legal instrument is known, clear and comprehensible to the parties.

'Trade transparency' is the subject of a very large number of provisions in WTO agreements. These provisions establish several types of obligations designed to enhance and insure 'trade transparency'. They include obligations to (i) publish; (ii) provide information; (iii) give public notice or notify; (iv) consult; (v) become a Member or to participate; (vi) provide an opportunity to compete; (vii) ensure, provide or improve transparency, including to conduct in a transparent manner; (viii) prepare documents; (ix) report; and, one might add, (x) to submit to specified dispute settlement procedures. Obligations expressed in WTO agreements are legally binding for all Members, while obligations expressed in plurilateral agreements, such as the Agreement on Government Procurement (GPA), are binding only on the signatories to the specific agreement in question and as provided in the specific agreement. The Agreement on Technical Barriers to Trade (TBT Agreement) contains numerous provisions establishing 'trade transparency' obligations. Similar provisions are found in most if not all other WTO agreements.[10] One key instrument to realise 'trade transparency' is the Trade Policy Review Mechanism, which seeks to achieve 'greater transparency in, and understanding of, the trade policies and practices of Members'. It enables the 'regular collective appreciation and evaluation of the full range of individual Members' trade policies and practices and their impact on the functioning of the multilateral trading system' (WTO, Annex 3, art. A(i)). Article X of the GATT, though it did not use the term transparency, sought to achieve this principle for the administration of trade regulations.

FAIRNESS IN INTERNATIONAL TRADE LAW

What does fairness in trade mean? The relevant academic literature about fairness combines perspectives from law, with those of public policy, economics and development studies. These perspectives are frequently expressed directly or indirectly in international trade law today. They reveal tension between different conceptions of fairness in trade. The most widely accepted conception of fairness in international law today is provided by Thomas Franck (1995: 26-27):

> *"… fairness is a composite of two independent variables: legitimacy and distributive justice. Fairness discourse is the process by which the law, and those who make the law, set to integrate those variables, recognizing the tension between the community's desire for both order (legitimacy) and change (justice), as well as the tension between different notions of what constitutes good order and good change in concrete instances."*

Narlikar (2006), Brown and Stern (2007) and Kapstein (2008) present useful, though partial, reviews of the issues. Applying Franck's concept to the discourse of international organizations, Narlikar argues that most international organizations pay attention to fairness but differ in the extent to which they emphasize either legitimacy or equity; differences in power and the distributional implications determine which is given most emphasis. Kapstein (2008: 231) concludes that 'states, operating in the context of an anarchic and uncertain environment, sometimes adopt fairness considerations in their strategic interactions,' notably because 'agreements that are perceived as being unfair are unlikely to prove durable.' As Elinor Ostrom (2005: 263) states, 'fairness is a crucial attribute … of robust systems.' These remarks do not, of course, specify which concept of fairness is adopted by particular institutions, and why.

The WTO appears to give more emphasis to order and legitimacy than to distributional justice, with the former including fair procedures, non-discrimination and reciprocity; we can add transparency to this list. Narlikar traces this priority back to the origins of the General Agreement on Tariffs and Trade (GATT). The GATT decision-making processes, first based on diplomacy and later on consensus-based voting rules, strengthened the priority given to process-based fairness over outcome-based fairness. The basic GATT principles of reciprocity and non-discrimination undermined the claims of developing countries for special treatment.

In Narlikar's view, the most important factors in determining the form of fairness discourse (order and legitimacy, or distribution) and its success in achieving its purposes are, first, the characteristics of the institutions in which it takes place and, second, the coalitions of which countries form part. Both factors contribute to the type of learning and adaptation by developing countries and their potential success in challenging the dominant fairness discourse of the institution. Nevertheless, change is possible. Narlikar remarks that 'the strategy of challenging the institution on its own terms by framing issues in conformity with its underlying norms seems to have already generated some success.'[11]

Thomas Franck's conception refers to public international law in general. It is reflected, however, in the domain of international trade law. Brown and Stern argue that 'fairness in the global trading system can best be assessed in terms of two criteria: equality of opportunity and distributive equity.' In their view:

> *"Equality of opportunity is realized when there is reciprocity between countries in the reduction of trade barriers, when they adhere to MFN (most favoured nation) treatment, when the biases in initial conditions are removed, when the rules supporting market access are not only seen as equivalent but are also consistent with national preferences within countries and when procedural justice is respected in such matters as dispute settlement and the use of trade remedy measures. Equality of opportunity, however, has to be modified in some degree to allow for distributive equity – understood as the promotion of development. In this framework, the criterion of efficiency is not a primary yardstick of fairness, but it is relevant in choosing between ways in which fairness can be realized."*

There are basically two general positions about the meaning of fairness in international trade law. One emphasizes equality of opportunity, while the other stresses equity of distribution. This basic dichotomy is echoed by Archer and Fritsch (2010), according to whom the two conceptions are widely used in international economics. Bhagwati (1996: 18) draws a correlation between fairness in terms of process, or equality of access, and American values on the one hand, and fairness in terms of justice and legitimacy and European values on the other. In his view, the correlation is explained by the different social contexts of the United States and Europe.

TRANSPARENCY AND FAIRNESS

There are basically three views of the relationship between transparency and fairness in trade. Whereas some argue that fairness in trade and trade transparency are equivalent, others note that trade transparency is a part of fair trade. Yet others argue that trade transparency and fair trade are not necessarily related but that trade transparency may potentially make a contribution to achieving fairness in trade.

We take the term 'trade transparency' to mean transparency in the law governing international trade. This leaves open the question of what fairness in trade means, and its relationship to transparency. Andrew G. Brown and Robert M. Stern (2007) argue that 'fairness in the global trading system can best be assessed in terms of two criteria: equality of opportunity and distributive equity.'

If we accept a broad view of fairness in trade, transparency is actually part of fair trade. It is part of procedural fairness, which may be very important in contributing to the development of a rule-based system in which weaker countries are not subject merely to power diplomacy.

Following standard economic theory, World Trade Organization (WTO) rules put an emphasis on order and legitimacy rather than on distributional aspects. Thus it provides for fair procedures, non-discrimination and reciprocity. We also include transparency in this list. This is in line with WTO's history and the General Agreement on Tariffs and Trade that preceded it.

However, for many if not all developing countries, procedural fairness is not sufficient. They argue that distributional fairness is also required. WTO rules provide for special and differential treatment (SDT) under specific conditions, but, partly because of the restrictions, their application so far has been limited. SDT measures are designed to compensate developing countries for structural asymmetries with developed countries, such as reduced access to technology and finance and deficiencies in human resources and infrastructure, but critics have argued that SDT treatment lacks concrete content.[12] One consequence has been that the non-governmental Fair Trade movement has tried to fill the space for distributional fairness by using other procedures (standardization, contracts, producer price premiums, etc.) and by closer linkages between consumers and producers in the geopolitical North and South.

Within the Fair Trade movement, a view identified with, inter alia, the Nobel Economics Prize winner Prof. Joseph Stiglitz is that, while trade liberalization should lead to enhanced global welfare, the trading system remains *de facto* discriminatory because (i) many developed countries do not follow the rules and (ii) many developing countries are not able to participate effectively in the international trading system (see Stiglitz 2006: 82, Stiglitz and Charlton 2005). Similarly, in 1996 Robert Howse and Michael J. Trebilcock rejected assertions that bundling together trade, environment and labour rights is protectionist. They argue that international trade law and institutions should aim at achieving a long-term cooperative equilibrium. These arguments have become the intellectual underpinning of the Fair Trade movement.

BOX 2: THE FAIR TRADE MOVEMENT IN EU POLICY AND LAW

The EU has generally supported the Fair Trade movement both financially and in terms of general policy. In 1994 the European Commission 'Memo on Alternative Trade' supported the movement and called for establishment of a working group on Fair Trade. This was followed by a European Parliament (EP) Resolution supporting Fair Trade (European Parliament, 1994).

After a 1998 EP Resolution supporting Fair Trade, the Commission prepared its first Communication on 'Fair Trade' in 1999 (Commission of the European Communities, 1999). The Commission began by stating that Fair Trade is an example of development through trade and is consistent with Article 177 of the Treaty establishing the European Community. It was noted that the criteria for certification were harmonized internationally and based partly on ILO Conventions and UN Agenda 21 recommendations. EU supportive policy included the EU scheme of Generalized System of Preferences (GSP). The Commission also commissioned a study by the New Economics Foundation on the use of social labels in ethical trade, which provided support for further EU initiatives, including future drafting of non-legally-binding codes of conduct. From a legal standpoint, its main concerns were two-fold. First, Fair Trade initiatives should be consistent with the EU's obligations under WTO law, in particular the transparent and non-discriminatory functioning of such schemes. This meant that Fair Trade should remain voluntary and private.

The second concern signalled by the Commission was the plurality of definitions of Fair Trade and labels for Fair Trade products. It noted that 'there is currently no legal definition (of Fair Trade), which leaves it open to abuse. In addition, a single definition was only agreed by FINE, the informal association of the four main Fair Trade networks, as recently as mid-1999. Moreover, there is no single label or symbol to identify Fair Trade products'. In other words, the market for Fair Trade products was not very coherently regulated. In conclusion, the Commission stated that it would take its WTO obligations into account in deciding further actions or support for the movement.

More recently, the EU has supported the Fair Trade movement in numerous policy documents and even in one legally binding act since then.

The May 2009 European Commission Communication defined more clearly the concept of Fair Trade used in the EU for policy purposes, identified representative bodies or interlocutors for public authorities, noted some of the institutional sources of Fair Trade criteria and norms, and set out the EU position concerning Fair Trade. This principle seems to draw, more or less directly, on current debates in the WTO about the working of international standardization bodies and the development of standards, particularly by private bodies.

THE FAIR TRADE MOVEMENT AND TRADE LAW

The Fair Trade movement sees itself as an antidote to de facto 'unfair' international trade, even though it cannot check the origin of all its raw materials and thus ensure that all are purchased fairly.[13] The movement emphasizes (i) a more balanced distribution of income, gender equality and environmental protection;[14] (ii) a better relation between labour, environmental protection and social justice;[15] (iii) trade as a means of enhancing the quality of agricultural exports, for example from China;[16] or (iv) trade as a way of ensuring a 'fair price' that takes account not only of production costs but also of social justice and environmental protection.[17]

The deployment of standards, labelling and certification has brought the Fair Trade movement squarely within the ambit

of international trade law.[18] The use of certification, a specific normative device, made possible the generalization of Fair Trade movement standards to any products or any brands and their use by larger production units than small-scale producers – for example plantations – or by other market actors, such as multinational companies.

The growing importance of voluntary standards further raises questions about the extent to which they represent opportunities or risks for producers in developing countries. Reviewing the ongoing research can shed light on a number of key questions about voluntary standards today. A comprehensive review is presented in Chapter IV.

PRIVATE STANDARDS: A CHALLENGE TO FAIRNESS?

Private standardization provides a particular challenge if we wish to achieve greater fairness in trade, notably in the procedural sense. The standards that private bodies produce complement and sometimes replace technical regulations or governmental standards. Producers in developing countries often face difficulties in complying with such private standards and thus in gaining market access. In the terms of the Agreement on Technical Barriers to Trade (TBT), technical regulations are legally binding, while standards are not. The rules of WTO are therefore much more stringent and applied more rigorously with regard to technical regulations. Similarly, WTO governmental standards are more regulated than private standards. For example, under the TBT Agreement, central government standardizing bodies are required to accept and comply with the Code of Good Practice for the Preparation, Adoption and Application of Standards. Members of WTO are also required under Article 4 of the TBT Agreement to take such reasonable measures as may be available to them to ensure that their local government and non-governmental standardizing bodies accept the code. However, control over private standards remains problematic. The TBT Code of Good Practice does not apply automatically to private standards bodies, which can decide whether or not to join. It does not cover international standardization organizations, though governmental or non-governmental standardizing bodies, one or more of whose members belong to WTO, may accept the code. So far, there does not seem to have been any authoritative determination about the status of private standards under the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) or the TBT Agreement.

Currently, WTO does not have institutional links with private voluntary standards bodies. Such bodies may participate in WTO deliberations indirectly through national governmental organizations, but the WTO does not have any official relations with these organizations.

AN EMERGING FRAMEWORK FOR PRIVATE STANDARDS

Currently, neither international standardizing organizations nor private standards bodies are bound by the emerging normative framework for the governance of standards-setting. This emerging framework consists of three parts:

- Principles for the development of international standards
- A standards information system
- A code for specifying the stage of development of a standard.

The principles for the development of standards include transparency, openness, impartiality and consensus, effectiveness and relevance, coherence and the development dimension; they draw substantially on United States administrative law. The standards information system provides a means of indicating the subject matter, state of development and relation to international standards for each standard being developed. It is part of the TBT Code of Good Practice for the Preparation, Adoption and Application of Standards.

Also part of the TBT Code of Good Practice is the stage code system, composed of five stages:

- Decision to adopt standard taken but no technical work begun
- Technical work begun but period for submission of comments not yet started
- Period for comments started but not yet completed
- Period for submission of comments completed but standard not yet adopted
- Standard has been adopted.

The standards information system and the stage code system are part of the trade transparency provisions of the TBT Agreement, but so far they do not apply to all international and/or private standards bodies. Acceptance of these basic principles could substantially improve transparency and fairness in trade, by ensuring that the interests of all stakeholders, including developing countries and developers of competing standards, are taken into account. International institutions should encourage private standards bodies to adopt such principles and the emerging normative framework.

A legal framework should also be agreed for private standards. For example, GlobalG.A.P. (formerly EurepG.A.P.) is a private sector body that sets voluntary standards for the certification of agricultural products according to good agricultural practices. Its standards deal with numerous topics, including worker health and safety, and waste and pollution management. In recent years developing countries have continually raised the issue of private standards such

as those of Global G.A.P. in the WTO sanitary and phytosanitary standards(SPS) Committee. In December 2008, the SPS Committee circulated a questionnaire about experience with private-sector standards. Replies were circulated, and a document compiling all replies was prepared. An ad hoc working group was created. In late September 2009, the Mercosur delegations (Argentina, Brazil, Paraguay and Uruguay) submitted a proposal for a legal framework for private standards, which is still under discussion. The TBT Committee could be encouraged to undertake a similar task.

Similarly, the plurilateral framework of the Agreement on Government Procurement (GPA) should consider the relevance, impact and governance of private standards in public procurement. Such a normative framework could be widely promoted, revised if necessary and eventually adopted to encourage transparency and fairness in trade. It could be either in legally binding measures or in the form of 'soft' law, that is, quasi-legal instruments that do not have any legally binding force or whose binding force is somewhat weaker than that of traditional law, but the choice of form and the content of the rules requires careful analysis.

Work on the regulatory framework should not be limited, however, to WTO. It should take account of emerging national rules and practices and those of regional bodies such as the European Union (EU), the North American Free Trade Agreement (NAFTA), the Association of Southeast Asian Nations (ASEAN), or the Mercado Común del Sur (Mercosur). Though these do not fall within the ambit of international trade law strictly speaking, they often directly influence it, and it is crucial to take into account the multiplicity of normative systems that constitute the form of legal pluralism that is characteristic of globalization today.

ANTI-DUMPING AS A CHALLENGE TO FAIRNESS IN TRADE

Anti-dumping law is a key focus of the debate about the meaning of fairness in trade and fair competition, not only because the countries and directly competing producers concerned have different conceptions of fairness in deploying or resisting anti-dumping measures, but also because of the distributive effects of anti-dumping measures, for example on downstream users, importers and consumers. WTO anti-dumping and anti-subsidy rules are frequently viewed as being designed to ensure fairness in trade, for example to maintain competition, restrain the import of unfairly priced foreign goods and protect domestic industries from unfair competition. However, these rules may also be invoked by WTO members to protect market share, with a negative effect on competition, which amounts to protectionism.

Earlier critics such as Wang Shichuan (2004) and Xie Haixie (2004) have censured developed countries for such practices, but recent trends in the use of anti-dumping measures clearly indicate that large developing countries use anti-dumping measures at least as often as do developed countries. Since 1995 almost two-thirds of all anti-dumping action has been taken by developing countries, with most of the measures imposed against exports of other developing countries. Emphasizing the importance of respect for international trade rules to ensure equality of opportunity and appropriate distribution of benefits, Nie Yuanzhen (2005) has gone so far as to assert that fairness in trade requires a fair distribution of the economic benefits (profits) from trade. In other words, fairness in trade may refer not only to fair competition between producers and traders, which is the subject of anti-dumping and anti-subsidy law, but also to rule-based relations leading to fair distribution of benefits between buyers and sellers, for example within a global commodity chain, for which contemporary international and domestic law is arguably inadequate.

ENCOURAGING RULE-BASED APPROACHES TO FAIRNESS AND TRADE TRANSPARENCY

The establishment of the WTO and the relatively wide range of covered agreements helped to shift the balance of the international trade regime from a power- and diplomacy-based system to a rule-based system. The single undertaking principle, the negative consensus rule and the creation of the WTO Appellate Body were crucial elements in this process. This shift contributed to the enhancement of fairness in trade in a procedural sense. In the words of the WTO Declaration on the Contribution of the World Trade Organization to Achieving Greater Coherence in Global Economic Policy-making:

> *"The positive outcome of the Uruguay Round is a major contribution towards more coherent and complementary international economic policies. The results of the Uruguay Round ensure an expansion of market access to the benefit of all countries, as well as a framework of strengthened multilateral disciplines for trade. They also guarantee that trade policy will be conducted in a more transparent manner and with greater awareness of the benefits for domestic competitiveness of an open trading environment. The strengthened multilateral trading system emerging from the Uruguay Round has the capacity to provide an improved forum for*

liberalization, to contribute to more effective surveillance, and to ensure strict observance of multilaterally agreed rules and disciplines. These improvements mean that trade policy can in the future play a more substantial role in ensuring the coherence of global economic policy-making. ”

The WTO Appellate Body has defined transparency and fairness as follows:

“ *A 'fair' administration would be implemented in a 'just, unbiased, equitable, impartial…' manner. As 'transparency' is the 'quality or condition of being transparent', a 'transparent' administration would be 'easily discerned; evident; …open' as well as 'extrapolated from every occurrence of the phenomenon; to which there are no exceptions', 'not subject to … more than one interpretation'. An administration of regulations lacking 'uniformity' would in general terms be unjust, biased, inequitable, partial and opaque – in other words, unfair and non-transparent. Therefore, uniformity is an element of a transparent and fair administration, or procedural fairness, and the above finding by the Appellate Body would be relevant in interpreting the uniformity required under Article X:3(a) of the GATT.* ”

Trade transparency is the subject of a very large number of provisions in WTO agreements, which establish several types of obligations designed to enhance and insure transparency. Compared to trade transparency, fairness in trade figures much less significantly in the agreements, which are based mainly on the procedural vision of fairness in trade.

As noted, the Fair Trade movement has so far been mainly concerned with fairness in trade in the distributive sense. It is constrained, however, by legal and other rules, including WTO, EU and national laws. These rules also orient the movement towards fairness in trade in the procedural sense.

Chapter IV of this report analyses the impact and outcomes of voluntary standards on producers and exporters in developing countries. It notes that voluntary standards have the potential to boost exports from developing countries and lead to increased well-being. But voluntary standards can also burden exporters and hinder export opportunities. This too is an area where this report calls for greater transparency.

BOX 3: CONCEPT OF FAIR TRADE USED BY WTO PANELS AND THE WTO APPELLATE BODY

This box analyses the concept of fairness in trade used by WTO panels and the WTO Appellate Body in the settlement of disputes. In several disputes, 'fairness' has been considered to mean 'consistent with the rules of international trade law'. In United States – Wine and Grape Products, the issue was whether wine was treated as a primary product, such that United States countervailing duty law could classify both grape growers and wine producers as part of the same domestic industry. The United States and the European Community (EC) agreed that a subsidy on a primary product was 'fair' but a subsidy on a non-primary product was an 'unfair' trade practice. 'Fairness' meant consistent with the GATT Subsidies Code.

In United States – Softwood Lumber from Canada, Canada noted that the Deputy Assistant Secretary of Commerce [of the United States] had stated that 'the MOU [Memorandum of Understanding on trade in softwood lumber] had been effective in offsetting the subsidies which distorted fair trade in lumber between the United States and Canada' (p. 37, para. 132). 'Fair trade' here meant trade in the absence of government subsidies.

In Japan – Film the United States challenged numerous measures of Japanese legislation that it considered to constitute 'unfair trade practices' under the Japanese Antimonopoly Law. These measures included the system of rebates given by sellers to buyers under the Japanese Ministry of International Trade and Industry (MITI) Guidelines for Rationalizing Terms of Trade for Photographic Film (p. 11, para. 2.17) when used excessively as a means of controlling distribution (pp. 12-13, para 2.19); Japan's interpretation of the Antimonopoly Law to allow the use of transaction terms different from standard industry terms (p. 84, para. 5.165); limits on 'fair and free competition' due to the Large Stores Law providing for restrictions on store closing times, number of days closed and other aspects of store operation (p. 125, para. 5.365); and 'misrepresentations or excessive premiums' used as 'deceptive customer inducement or as customer inducement by use of unjust benefits' (p. 131, para. 5.391).

In United States – DRAMS from Korea, 'unfair trade' was interpreted as trade that benefited from 'unfair subsidies' (p. D-15, para. 9), in other words subsidies that were contrary to the WTO Agreement on Subsidies and Countervailing Measures. Finally, in US – Gambling the United States rejected Antigua and Barbuda's apparent assertion that its status as a developing country should exempt it from having to make a prima facie claim, stating (in para. 3.122) that it questioned 'whether basic notions of due process would ever permit a downward or upward adjustment in the burden of proof based on a Member's level of development'.

Parties in anti-dumping cases often formulate their claims in terms of 'fair trade'. For example, in Thailand – H Beams, Thailand argued that a Polish exporter's pricing practice amounted to unfair trade (p. 317, para. 17). Here Thailand emphasised legal rules.

In United States – Softwood Lumber from Canada – Recourse to Article 21.5 DSU, Canada defined 'fair' as meaning 'free of prejudice', 'just', 'equitable' or 'having the qualities of impartiality and honesty' (p. B-3, para. 10). According to the EC: 'Fairness, in the context of a comparison between domestic sales and export sales, requires that, under normal circumstances, the same treatment be applied to both domestic and export sales, i.e., that such sales be treated in a symmetrical way. That means that the same methodology must be adopted to establish the value of the sales that will be used for the calculations.' (p. B-8, para. 12)

WTO Panels or the Appellate Body have defined 'fair trade' in several cases. In Thailand – H Beams the Panel concluded that 'Poland's repeated failure to recognize Thailand's good faith and its failure to itself act accordingly is inappropriate, undiplomatic, and unfair and has no place in WTO dispute settlement.' (p. 322, para. 23). It emphasized respect for legal rules, agreed procedures and conceptions of international law and contract law such as good faith.

In Argentina – Footwear (EC) and US - Lamb the Appellate body referred to 'dumping or fraud or deception as to the origin' as examples of 'unfair trade practices' (respectively, p. 103, para. 5.369 and p. A-477, para. 37). Canada – Dairy concerned Canadian export subsidies on dairy products and administration of a tariff-quota system for fluid milk and cream. The Panel emphasized the importance of the Agreement on Agriculture, particularly its objectives, binding commitments concerning export competition, and restrictions on export subsidies (p. 95, para. 4.271): in other words, the agreed normative framework of international trade law.

The meaning of 'fair trade' was also at issue in *Chile – Price Band System*, concerning whether amendments made by Chile to its price-band system for certain agricultural products were consistent with Chile's WTO obligations. The Panel noted that the WTO Agreement on Agriculture stated, in the preamble, its objectives as including: 'to establish a fair and market-oriented agricultural trading system'. Fair trade was to be achieved by reductions in agricultural production, based on 'specific binding commitments,' *inter alia*, in the area of market access (p. 20, para. 7.18). The Panel also noted that the original Panel in the proceedings referred to the importance of respect for the legal text of the Agreement on Agriculture as the 'legal underpinning' of tarification of agricultural trade (p. D-5, para. 17).

On the whole, 'fair trade' is conceived by WTO panels, the Appellate Body and the Dispute Settlement Body to mean respect for and implementation of legal rules.

(Readers may wish to consult the GATT/WTO references provided in the bibliography at the end of this report)

CHAPTER II

MARKET ACCESS AND ENTRY FOR DEVELOPING COUNTRIES

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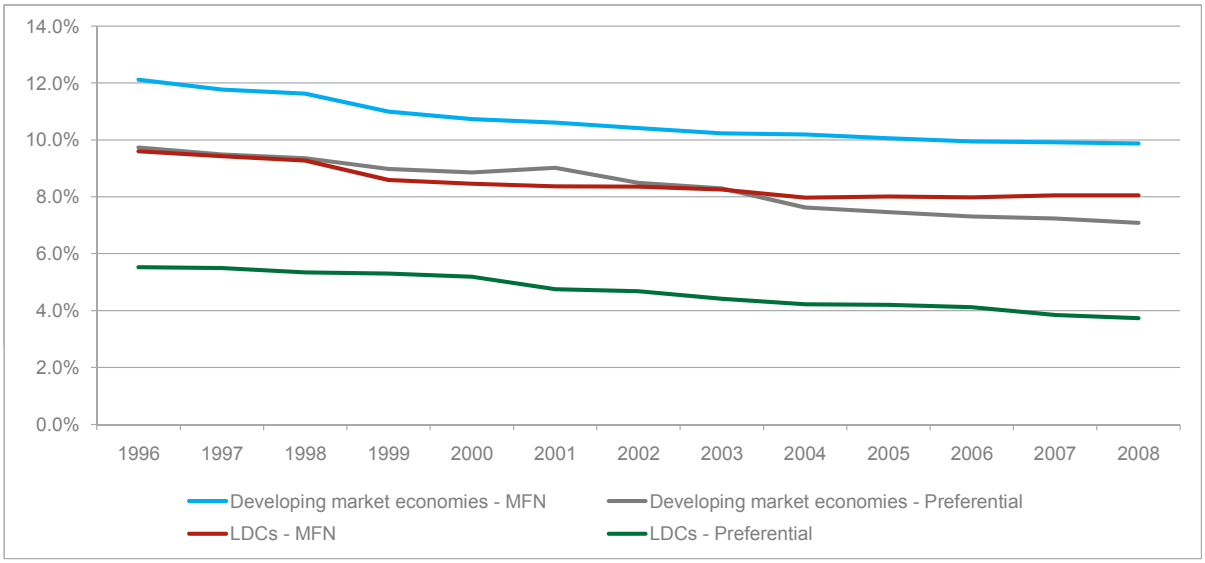
MARKET ACCESS AND ENTRY FOR DEVELOPING COUNTRIES

This chapter presents three of the key market access issues for developing countries: tariffs, non-tariff measures and the utilization of preferences. Very considerable progress has been made on market access issues for developing countries, through the Uruguay Round and subsequently. Figure 1 shows very clearly that the effective tariffs applied on imports from developing countries have been significantly and systematically reduced from 1996 to 2008. This is a most welcome improvement and shows the commitment of developed economies to providing market access and trade liberalization. But nevertheless tariff and non-tariff issues as well as preferences will need to remain prominently on the agenda of the multilateral and bilateral market access negotiations.

This report notes that the price tag for market access still remains in excess of $50 billion in duties paid for access to the developed economies of the EU, United States, Australia and Canada alone – and this is a conservative estimate. Even more importantly, the tariff structures, in particular tariff escalations, continue to jeopardize the opportunities for developing countries to upgrade their productive capacity to process goods with greater value-addition. Demands to limit tariff reductions on so-called 'sensitive products' in the agricultural sector raise a concern that the agricultural tariffs in fact applied, especially when combined with tariff-rate quotas, will remain significant barriers to trade from developing countries in years to come.

Figure 1: Average tariffs imposed by developed market economies on agricultural products, textiles and clothing



Source: ITC – www.mdg-trade.org.

Non-tariff measures (NTMs) are proliferating – driven by the increasing sophistication of markets as well as consumer demands. Some non-tariff barriers (NTBs) have emerged as a consequence of NTMs, while others bear no relation to NTMs. Facilitating trade in this context will require greater transparency around these NTMs, and efforts to reduce the

cost of compliance and to help build capacity to comply with such measures. This report presents fresh research findings into the experiences of companies affected by NTMs.

While preferences are not the panacea for improved market access, they are definitely part of the solution. This report presents estimates of the utilization of preferences, showing that the 49 LDCs benefited from reduced import duties to the tune of $1.6 billion during 2008. Several progressive non-reciprocal preference schemes, such as the EU's Everything but Arms (EBA) initiative and the US's African Growth and Opportunities Act (AGOA) are shown to have encouraged export development. But this report observes that the limitations of the schemes mean that importers from four LDCs still face duties amounting to $1.4 billion for access to the major developed economies, especially for importing labour-intensive textiles and clothing.

TARIFF STRUCTURES

TARIFF PEAKS, TARIFF ESCALATION AND DEVELOPING COUNTRIES' EXPORT PATTERNS

Despite the success in reducing tariffs and introducing trade disciplines through the eight GATT[19] agreements[20] since 1947, specific high tariffs on key commodities continue to exist, as well as widespread cases of tariff escalation, where tariffs increase the higher the level of processing involved. The remaining high tariffs and tariff escalation are being addressed by the Doha Agenda negotiations and are a central issue in the difficulties of concluding a new trade agreement. The treatment of market access and the tariff cuts in agriculture in particular have been a major source of contention. The level of protection in the agricultural sector remains high, and countries have been reluctant to allow tariff cuts that would effectively undermine their protection on products they define as 'sensitive'.

During the last GATT round of negotiations, the Uruguay round (1986-1994), agriculture was incorporated into the negotiations. But its late inclusion is only one of several reasons why a substantial difference in the protection level for the sectors covered by the non-agricultural market access (NAMA)[21] tariff lines and those covered by the Agreement on Agriculture remains.

Years of negotiations have focused on tariff cuts. Regrettably, the tariff cut methodology used in the Uruguay round resulted de facto in a very limited effective reduction in agriculture. First, because bound tariffs,[22] on which the cuts were implemented, were often well above applied tariffs (allowing the existence of an 'overhang'). Second, because the cuts were required on average (36% cut in tariffs) and not on each product, this allowed selective tariff cuts and reduced the need for countries to apply lower tariffs on specific commodities.

This report analyses the remaining tariff peaks and tariff escalation. Tariff peaks are defined as those in excess of 15% – the OECD definition.[23] In fact, tariffs exceed 200% on some products in 33 countries and there are reported cases of specific tariffs exceeding 1000% in some developed countries, such as for example Norway or Switzerland (World Tariff Profiles, 2009).[24] However, it is no exaggeration to declare that one of the main achievements of the GATT rounds has been to introduce customs duty discipline. It has created a much higher degree of tariff level transparency and has facilitated the identification of tariff peaks on many products.

Tariff levels remain important today and impose significant trade restrictions on developing countries. They affect not only trade between developing and developed countries, but also among developing countries. Tariff peaks on key commodities, particularly in agriculture, and tariff escalation have the following consequences for developing countries:

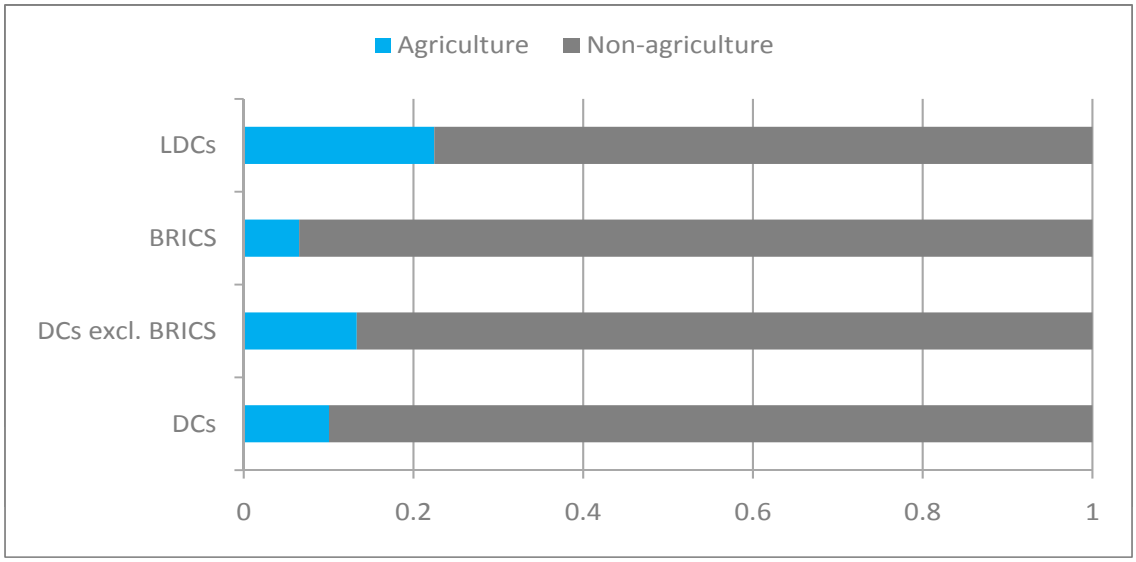
- They both reduce trade in such key commodities
- Tariff escalation directs exports of developing countries to products or markets with lower tariffs, limiting the opportunities of diversification

- Tariff escalation reduces the capacity of developing countries to expand their exports beyond raw material products to processed higher value-added goods
- Tariff peaks, if combined with tariff quotas, limit imports de facto to levels controlled by the country offering the quotas.

In summary, tariff peaks and escalation can potentially reduce the export diversification of countries and thus their growth potential, while increasing their vulnerability to shocks from either the market or from other exogenous factors.

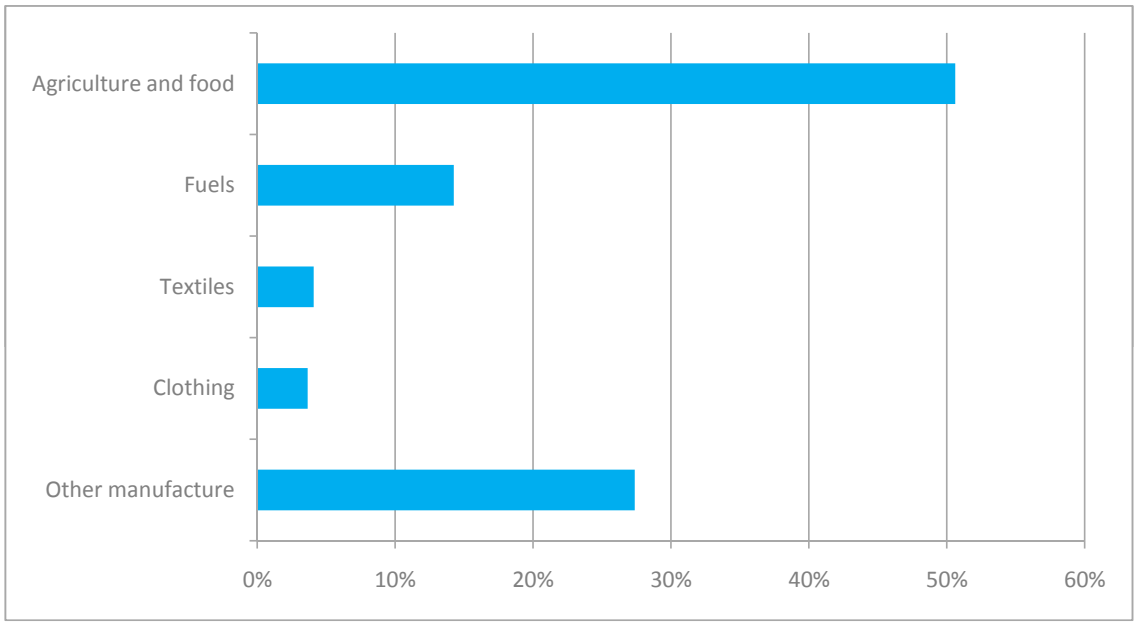
Of course, those four points are aggravated through other restrictions, such as the rules of origin (RoOs) and other NTBs – as well as through domestic subsidy regimes. This section of the chapter will focus on tariff mechanisms, starting with a commentary on tariff peaks and tariff escalation. It will discuss their interplay with GSP and other non-reciprocal preference concessions and analyse trends in trade of different country groups for different product categories to find inter-linkages between tariffs and developing countries' trade performance.

Figure 2: Export patterns of developing countries, BRICS and LDCs (excluding oil and minerals)



Note: Developing countries here exclude BRICS and LDCs.

Figure 3: Export pattern of 42 selected LDCs by major product categories



Source: ITC MAcMap database.

Tariff peaks

Through the various GATT agreements average tariff rates have been reduced substantially and are today relatively low. Nevertheless, the tariff reductions have mainly focused on NAMA, i.e., all tariff lines not covered by the Agreements on Agriculture. Tariff peaks are more widespread in agriculture, which includes many products that are of central importance to developing country exports. On aggregate, in high income countries [25], tariff peaks, i.e., MFN ad valorem duties over 15%, can be found in 12% of the tariff lines (World Tariff Profiles 2009). The calculation is based on the total share of high tariffs of the MFN tariff lines.

However, tariff peaks are not only used by developed countries, they are also applied widely by developing countries as well. In a large number of cases those tariffs are often not so much intended to protect domestic production, but rather to raise state revenues.

Tariff peaks can have important impacts on developing countries, in particular in agriculture and textile and clothing, which are among their main export products. Figure 2 shows that the share of agricultural exports for developing countries and LDCs ranges between 10% to 22%, well above that for the BRICS (6%). Oil and minerals are excluded because of their concentration in specific countries and impact on the overall figures. In figure 2, we can see the BRICS have an influence on the share of agricultural exports of developing countries. For many LDCs agriculture is of central importance in exports. It is important to note that textiles and clothing account for a large share of LDC exports, but these are concentrated in just a few countries. Figure 3 excludes four oil exporting LDCs as well as major textile and clothing exporting LDCs (Bangladesh, Cambodia and Madagascar). The figure shows that for remaining 42 out of 49 LDCs, agricultural exports account for over 50% of their exports.

Table 3 presents the share of tariff lines with tariff peaks for specific product groups. We see that some OECD countries apply tariffs exceeding 15% on several hundreds of agricultural tariff lines. Again, developed countries here apply some of the highest tariffs.

The highest MFN applied duties in Japan, in excess of 500%, cover specific animal and dairy products, cereals and leather goods. Specific animal and dairy products face applied MFN duties in Switzerland in excess of 500% too. Generally in the OECD, the main areas of protection in agriculture are for the dairy, meat and vegetable sectors. The United States and EU tariffs are on average lower than for EFTA countries.

Table 3: Tariff peaks (MFN >15%), percentage of tariff lines at HS 6 level (2009)

	All	Agricultural products	No. of MFN applied tariff lines for agricultural products	Non-agricultural products	No. of MFN applied tariff lines for non-agricultural products
EU	4.4%	26.7%	2 724	1.1%	7 597
United States	2.9%	5.4%	1 790	2.6%	9 370
Japan	3.6%	22.4%	1 707	0.7%	7 361
Canada	6.6%	5.8%	1 370	6.7%	6 938
Australia	4.1%	0.5%	748	4.7%	5 254
Switzerland	4.8%	30.5%	1 994	0.9%	6 088
Norway	4.9%	36.9%	1 351	0.0%	5 691
Iceland	4.0%	30.1%	1 795	0.0%	6 194
Mexico	25.5%	43.8%	1 198	22.7%	10 903

Source: ITC database /World Tariff Profiles 2010.

Nevertheless, while tariff peaks are important in developed countries, they are widespread in middle income and developing countries. Tariff peaks are not simply a North-South trade issue, but also a major issue for trade amongst developing countries.

Table 4 presents the share of tariff peaks for selected product groups for a number of developing countries. Tariff peaks are very frequent in developing countries, restricting trade between them. The incidence of tariff peaks in the table is quite remarkable, as non-agricultural products and particularly textiles are very highly taxed, much higher than in the OECD countries listed in table 3.

It is necessary to point out that tariffs have a different role in the developing countries. In developed countries tariff revenues are not significant, their role is mainly protectionist. For many developing countries tariffs constitute important

Table 4: Tariff peaks (MFN >15%), percentage of tariff lines at HS 6 level (2009)

	All	Agricultural products	No. of MFN applied tariff lines for agricultural products	Non-agricultural products	No. of MFN applied tariff lines for non-agricultural products
Brazil	35.8%	15.1%	945	39.0%	8 836
Russian Federation	16.9%	12.3%	2 490	17.6%	8 686
India	17.1%	82.3%	1 431	7.3%	9 929
China	14.6%	35.0%	1 093	11.6%	6 784
South Africa	20.7%	23.7%	919	20.3%	5 782
Argentina	36.1%	15.7%	945	39.2%	8 838
Morocco	39.0%	75.3%	2 487	33.5%	15 427
Nigeria	38.3%	60.4%	795	35.0%	4 875
Pakistan	36.9%	38.0%	804	36.8%	5 998
Thailand	22.9%	59.0%	1 296	17.4%	7 851

Source: ITC Market Access Map/ World Tariff Profiles 2010.

revenue for the state. Thus the considerations of developed and developing countries when negotiating tariffs are very different (see Kowalski, 2005). However, even if tariffs may be important for state revenues, they can also damage the development potential of developing countries, also in respect to the lost opportunities for intra-regional trade.

But the existence of tariff peaks is closely related to other tariff-based trade distortions, such as tariff escalation and market access through tariff rate quotas (TRQ).

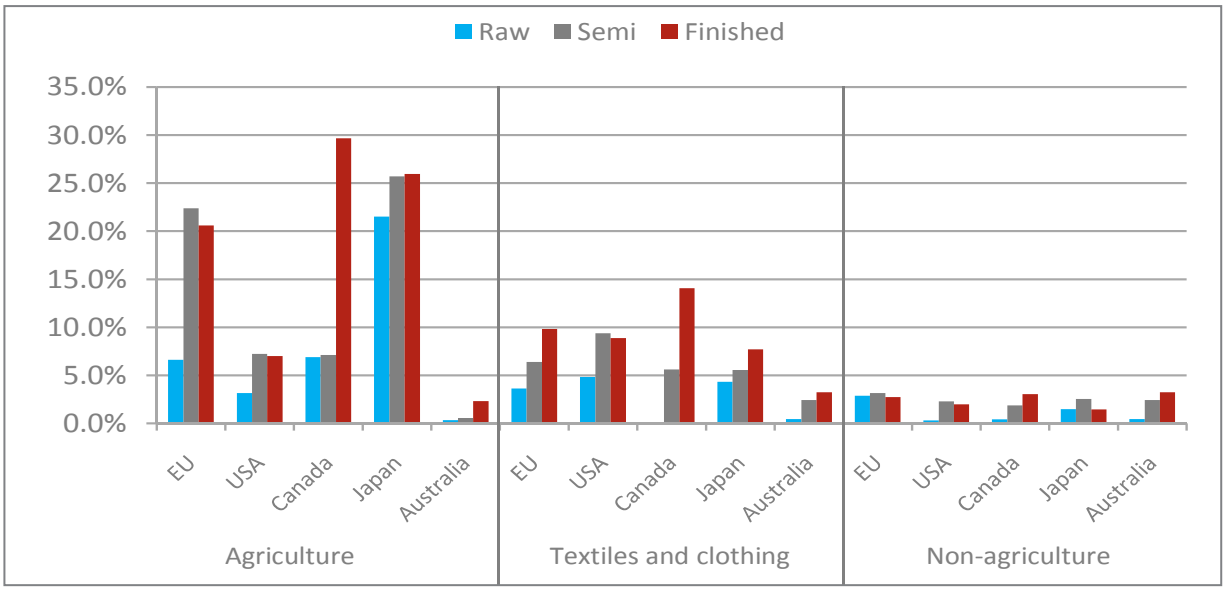
Tariff escalation

A little less researched , but not necessarily a less important, problem is tariff escalation. Tariff escalation occurs if tariffs increase with higher levels of processing. This constitutes a clear trade distortion and creates additional barriers to market access. In fact, escalating tariffs in processed products hinder exporters from further developing products up the value chain, discouraging vertical diversification into higher value-added exports. The importing country, however, benefits from lower input costs through cheaper imports while retaining the value-added of higher processed products through tariff barriers.

Figure 4 shows the average rate of ad-valorem tariffs in the EU, United States, Canada, Japan and Australia for raw, semi-finished and finished products for agriculture, textiles and clothing, and industrial products.

There is quite a visible tariff escalation tendency, but it varies in form between trading partners and product. The highest tariffs and strongest cases of escalation can be found for agriculture and textiles and clothing, whereas other

Figure 4: Tariff escalation in selected developed countries in 2009



Source: ITC, year 2009.

Figure 5: Tariff escalation in selected countries, agricultural products

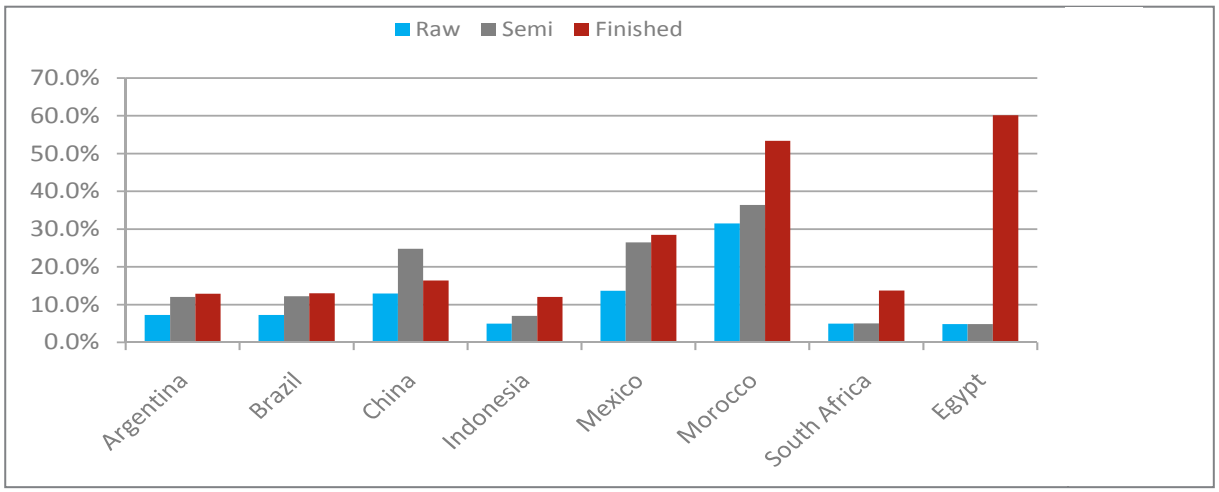


Figure 6: Tariff escalation in selected countries, textiles and clothing

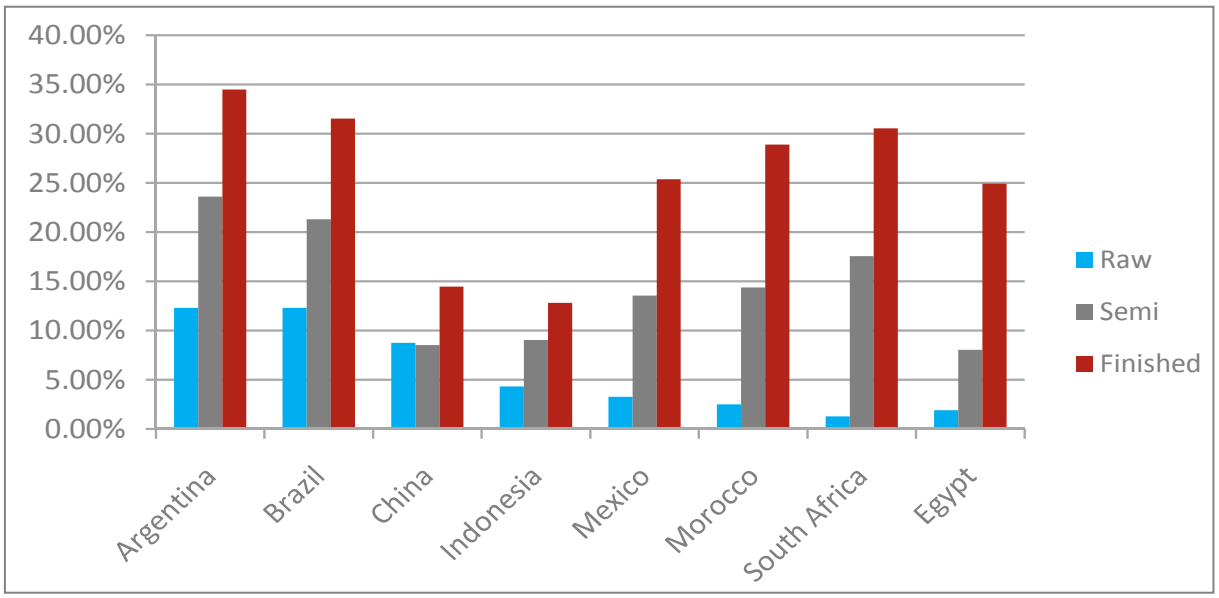
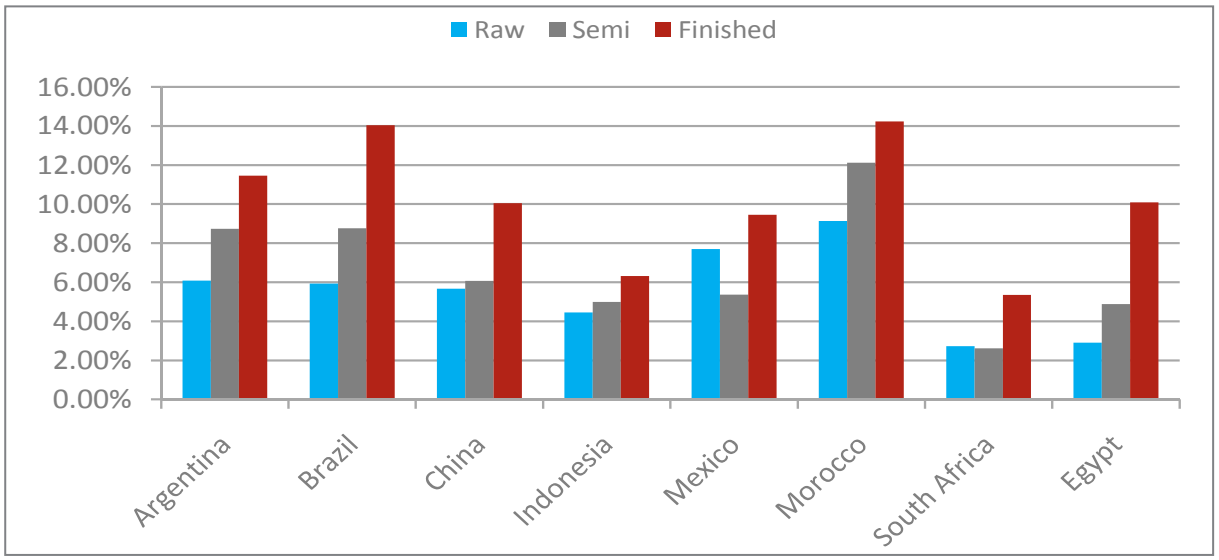


Figure 7: Tariff escalation in selected countries, non-agriculture



Source figures 5, 6, 7: ITC, data 2009.

Table 5: Average final applied MFN tariffs (HS 6 classification) 2009

Product	Primary/ processed	United States	EU	Japan*	Canada
Cocoa	Beans	0	0	0	0
	Chocolate	11.9	32.3	30	48.8
Coffee	Green	0	0	0	0
	Roasted	0	9	12	0
Oranges	Fresh	1.8	5.4	24	0
	Juice	12.9	31.6	25.5	0
Pineapple	Fresh	0.8	5.8	12.1	0
	Juice	5.4	22.4	24.4	0
Hides and skins	Raw	1.6	0	3.1	0
	Tanned	2.6	3.2	18.1	2.6
Sugar	Raw	41.5	54	25.2	8.5
	Refined	47.7	65.4	33.5	3.8

Source: ITC Market Access Map.

non-agricultural tariffs do not exhibit significant escalation. This adds to the competitiveness of those sectors in developed countries. The tariff escalation differences between raw, semi-processed and processed products depend on domestic processing industry needs. Tariff escalation is, however, again not only a feature of developed countries. It can also be found across developing and emerging countries, as presented in figure 5, figure 6 and figure 7.

It is clear that there is a correlation between tariff peaks and tariff escalation. In fact, by moving against tariff peaks, the ongoing Doha round seeks to limit the capacity of trading partners to keep large tariff differences between raw and highly processed products. High tariffs will need to be cut more than lower tariffs under the various formulas proposed during the negotiations. While the exact mechanism and rates have not been agreed, this principle has been accepted. Nevertheless, the latest modalities still allow for a continuation of a number of exceptions for sensitive products and thus a continuation of high tariffs and tariff escalation in key agricultural products. The present understanding also allows for setting tariffs at a more disaggregated level than HS 6, in effect at the tariff-line level (WTO modalities). This unfortunately means that tariff escalation must be expected to continue to exist after the conclusion of a Doha agreement.

The use of tariff escalation for specific products of interest in developing countries is presented in table 5, based on a selection by Elamin and Khaira (2003). The tariffs used are not the same, however, because for this recalculation, applied rather than bound tariffs are used.[26] This makes a considerable difference, in particular for sugar. In addition, we can find high tariffs in broader categories. Zero tariffs appear to be applied either where there is no domestic production or where the demand exceeds supply considerably. Table 5 shows the magnitude of tariff barriers on specific key commodities. Depending on the domestic industry structure, higher tariffs are applied to primary or the processed products.

A study by van Berkum (2009) describes how domestic production and tariff escalation are linked. For coffee and cocoa there is no domestic production in the countries analysed, but the processing industry is important in some of them. For the EU, the processing industry for coffee and chocolate is important, and the export markets for high value-added chocolate and coffee products are too. It is thus no surprise to find high tariffs for chocolate. For the United States the tariff is lower, corresponding with a less important processing industry for those products. For Canada, on the other hand, chocolate processing is important as the country is a major exporter to the United States.

The EU is a net exporter of processed food. It is thus not surprising to find tariff escalation across many agricultural products. Where a primary commodity is produced domestically, however, the tariffs are high across all levels of processing, such as for example sugar in the EU and Japan.

Table 6 presents further examples of high tariff barriers and tariff escalation for basic commodity groups. The applied tariffs, based on Broad Economic Categories (BEC) classification, show how these apply to several important categories.

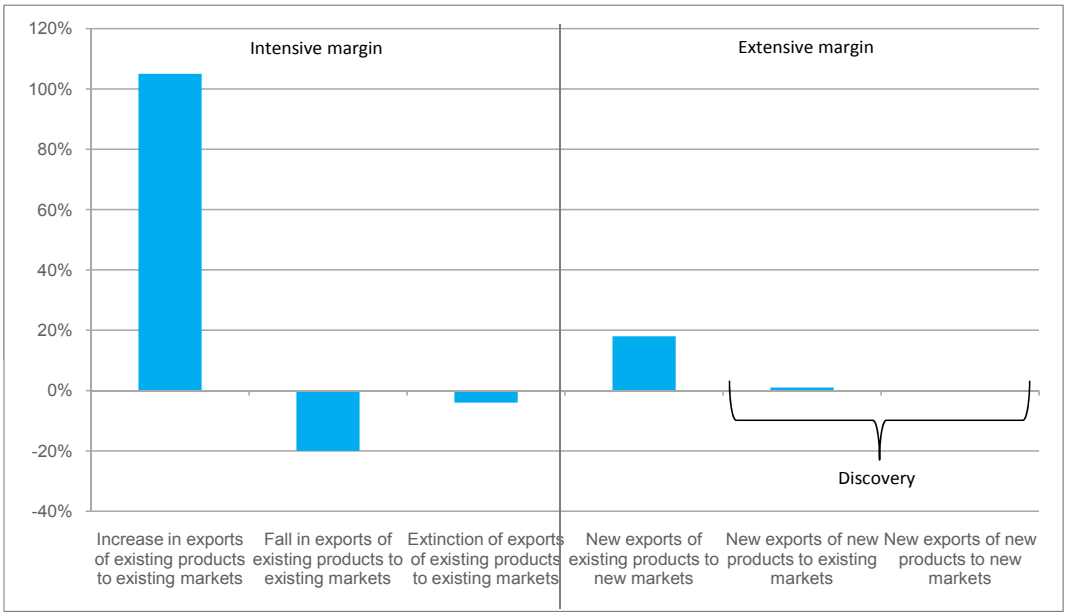
Tariff escalation in the agricultural sector has been attributed to the high vertical and horizontal integration of the processing industries and the retail sectors, allowing the large corporations that have emerged to significantly influence

Table 6: Average final applied MFN tariffs (BEC classification)

Product	Economic classification	EU	United States	Japan	Canada
Dairy	Household consumption (primary)	50.7%	22.3%	153.9%	231.2%
	Household consumption (processed)	53.4%	24.0%	167.8%	253.2%
	For industry (processed)	72.7%	20.4%	200.8%	181.6%
Fruits and vegetables	Household consumption (primary)	9.9%	4.3%	17.6%	2.7%
	Household consumption (processed)	22.7%	9.1%	13.1%	6.3%
	For industry (primary)	3.8%	2.5%	7.9%	2.4%
	For industry (processed)	10.2%	4.2%	15.1%	4.4%
Cereals	Household consumption (primary)	0.6%	28.5%	19.1%	52.4%
	Household consumption (processed)	5.9%	14.4%	62.5%	14.3%
	For industry (primary)	1.0%	15.1%	147.6%	16.7%
	For industry (processed)	3.7%	25.5%	42.1%	31.7%

Source: ITC MAcMap database, tariff average for 2009, but 2008 for Japan.

Figure 8: Decomposition of export growth for 99 developing countries



Source: Brenton, Paul; Richard Newfarmer. Breaking into New Markets - Watching More than the Discovery Channel to Diversify Exports. World Bank, 2009, p. 113.

commodity prices. Tariff escalation helps those companies to generate artificially high value-added margins. The higher the wedge between the raw material tariff and the finished product tariff, the easier it is to realize 'value addition' of the product, as the tariff allows an inflated domestic price. This value-added can be estimated through the effective rate of protection (ERP) measure first developed by Corden (1966) and used for example by Dihel and Dee (2006) for the OECD or by Chevassus-Lozza and Gallezot (2003) for the EU. This takes into account the size of the value-added of products caused by the price effect of the highly processed product. The calculation of the ERP goes, however, beyond the scope of this report. The examples of cocoa or coffee in **table 5** would suggest that the domestic industry increases its profit margins by having cheaper inputs, while the processed tariff remains higher. Developing countries will find it difficult to invest in processing, human capital and necessary capital assets if their major markets restrict processed imports.

For developing countries tariff escalation is a potentially problematic trade distortion affecting the vertical diversification of exports. This seems to be confirmed through a study by Brenton and Newfarmer (2007), which indicates that, for developing countries, expanding existing products in existing markets (so called 'growth at the intensive margin') explains a greater share of their export growth than does diversification into new products and new markets ('growth at the extensive margin'). They also note that while trade in processed food products has rapidly increased, developing countries' global trade share of processed products has fallen.

TARIFF RATE QUOTAS

The need for developing countries to benefit from special trade conditions facilitating their access to developed markets has been recognized by the GATT (now WTO) agreements from the outset. Developing countries thus benefit from preferential access to developed markets through the GSP (generalized system of preferences), exempting them from the MFN rule for tariffs. Through it, developing countries have been offered special and differential treatment (SDT) in the form of lower tariffs and low tariff or duty-free quota-free access for a number of goods.

But the use of tariff-rate quotas (TRQs) remains widespread. In the EU an average of 15.1% of agricultural tariff lines have TRQs, and 23.8% of the lines were subject to special safeguards. Switzerland had tariff quotas on 24.7% of the lines, with safeguards on 37.2%. For the United States, by contrast, the proportion was much lower with respectively 9.5 and 2.9%. (World Tariff Profiles, 2009). In 2005, 1,434 different agricultural TRQs in 45 countries were notified to the World Trade Organization (WTO, 2006).

Tariff peaks, too, have usually been connected to trade concessions through the GSP. Normally, concessions are offered through a combination of lower tariffs, and low-tariff or tariff-free quotas for specific products to groups of developing countries. Duty-free quotas are usually combined with prohibitively high tariff peaks for out-of-quota trade that de facto limits import volumes to the quota level or below.27 Countries have used duty-free quotas to control imports and to ensure that imports in key commodities are based on historical trade flows, generally favouring former colonies and often maintaining trade in a status quo rather than increasing commerce. The Uruguay round agreements did expand the TRQ partially, but the main achievement was to eliminate selective concessions. The EU, for example, had extensive targeted mechanisms of concessions to former colonies (the ACP countries). Following the Uruguay round agreements those selective concessions had to be phased out. This process has of course created winners and losers within the developing countries, but has eliminated unfair trading competition among developing countries.

An important non-reciprocal concession was introduced in 2001 by the EU, with the Everything but Arms (EBA) initiative. It is a major programme to comprehensively liberalize its trade with LDCs without imposing quotas, except for trade in munitions. The transitional provisions for key commodities were officially phased out in 2009. However, the rules of origin still apply and it also includes clauses to re-introduce barriers when an import surge exceeds a threshold.

The EU added 919 tariffs lines to its list giving duty-free access, including such sensitive products as: beef and other meat; dairy products; fruits and vegetables, including processed fruits and vegetables; maize and other cereals; starch; oils; processed sugar products; cocoa products; pasta; and alcoholic beverages.

Hence, as far as LDCs are concerned, the EU market is fully open to highly processed goods duty-free. The overall impact of such liberalization is, however, still not fully achieved. Given the size of LDC markets in processed products, one can claim that the reciprocity rule in fact benefits the EU's own food processing industry. It grants access to cheap raw material inputs with little risk of competition from processed foods. The EU's developing-country competitors are usually not within the LDCs.

DUTY-FREE QUOTA-FREE FOR LEAST DEVELOPED COUNTRIES

During the WTO Hong Kong Ministerial Meeting held in December 2005 it was agreed that duty-free quota-free (DFQF) access for LDCs should be granted by developed countries from 2008 or no later than the implementation period (of the Doha agreement, which has not been finalized) for at least 97% of products. Many developed countries, and developing countries such as India, have granted duty-free access for most tariff lines to LDCs without waiting for the conclusion of the Doha round. The importance of moving towards the full implementation of the DFQF decision made at the Hong Kong Ministerial meeting at the earliest possible time deserves emphasis.

However, the impact of the DFQF should be assessed carefully. LDC imports in developed countries only account for a very small share of developing-country exports (less than 1.5% of the total in 2009). In addition, due to administrative restrictions and barriers such as the rules of origin, LDCs still find that some of their exports are charged at MFN tariff rates. This is discussed in the section on preference utilization below.

The EBA initiative acted as precedent for other countries to follow suit. Furthermore, the GSP of the EU excluded many agricultural products, while the EBA does not. However, market access to the EU still requires compliance with non-tariff measures, such as SPS, TBT and the rules of origin. Those are in some cases formidable barriers. The tightening of SPS rules for fisheries and livestock products can have severe consequences, as presented in case studies on Bangladesh (Núñez Ferrer, 2006; Bhattacharya et al., 2004). How non-tariff measures affect exporting companies will be examined below.

THE DOHA ROUND APPROACH TO AGRICULTURAL TARIFF CUTS

A number of formulas to reduce agricultural tariffs have been proposed over the years of negotiations. The basis of the formulas is the idea of imposing larger tariff cuts to higher tariff rates in such a way as to really reduce applied tariffs. Several formulas have been discussed. The most radical cuts were proposed in the Swiss formula. A number of softer variants have since emerged. In general, the cuts proposed would strongly reduce tariff escalation, although cuts would be lower for developing countries and significant exceptions to the rule would remain for so called 'sensitive' products.

The 2008 revised 'draft modalities for agriculture' indicate the state of the negotiations on tariff cuts at WTO at the time of this report. It presents a tiered formula that requires cuts from 50% up to 73% for different levels of ad valorem tariffs. The minimum average cut in bound tariffs for developed countries would be 54%. To ensure that tariff escalation is reduced effectively, an additional cut for bound tariffs is applied for processed products. Tariffs for processed products should, however, not fall below those of the primary product.

The draft modalities include exceptions for sensitive products, allowing for 4% of tariff lines in agriculture to exceed 100%; but the provisions allow for greater flexibility when the country has more than 30% of tariff lines suffering the highest level of tariffs cuts. There is a provision in the draft modalities that allows commodity-dependent developing countries to identify cases of tariff escalation and to request negotiating those with the relevant countries. There is, however, no binding obligation on the developing countries imposing those tariffs to reduce them, whereas the obligation of the developed countries remains to be clarified.

The impact of maintaining some degree of exclusions on sensitive products proves significant. A model using the GTAP database on the impact on applied tariff reductions of those exceptions has been performed by Jean et al. (2005). The model uses various scenarios of tiered tariff rate cuts including the Harbinson proposal as a mechanism, one variant of the various tiered formulas considered in the WTO. The study observes that the bulk of trade in agriculture accumulates on a small percentage of tariff lines, thus a large share of trade liberalization is lost by even a 2% sensitive product exemption. For developed countries, just 4 HS2 categories explain 52% of the tariff cuts under this tiered formula, or 81% of the fall in protection reduction with a 2% sensitive product exception. Based on an assumption that the sensitive products that countries are most likely to wish to exempt are based on past revealed preferences, the authors conclude that the average applied tariff reductions are significantly lessened because of the flexibility that the proposals permit.

For this report, the ITC has updated such earlier calculations, using the outcomes of December 2008 draft modalities (**table 7**). The first column describes 2004 MFN tariffs for agricultural imports of developed countries with agricultural imports, which imported agricultural goods for amounts ranging from $67.3 billion (for the EU) to merely $244 million (Iceland). A further 15 developing countries with agricultural imports ranging between $16.7 and $3.3 billion are also reported.

Tariff reduction computation takes into account all the elements mentioned in the December 2008 modalities (tropical products, tariff escalation, and specific country exemptions). As regards the treatment of sensitive products, it was assumed that industrialized countries would cut their tariffs by one-third of what would come out of the tiered formula previously proposed, and that they would be entitled to exempt a percentage of the total number of agricultural tariff lines. Regarding this percentage, a cautious and quite conservative approach was used for ITC calculations. While ordinary industrialized countries would be entitled 4% and EFTA countries would have 6% as a result of their high share of products in the top band, the demand by Japan and Canada for a higher contingent of lines, respectively 8% and 6%, has been taken as accepted for Canada, while a compromise at 7% was assumed for Japan.

The next column follows the same formula, with the exception that sensitive products in industrialized countries and special products in developing countries have been eliminated from the calculation. As a result, tariff cuts are significantly larger. For the large agricultural importers among developed countries, eliminating the flexibility permitted by the sensitive lists would cut applied tariffs on agriculture in most cases by a further 50% (see **table 7**).

While a number of specific assumptions undoubtedly affect these results, such as the assumptions on the exact formula for the tiered cuts or the composition of sensitive products, the impact of sensitive-product exceptions on agricultural products will always remain considerable due to the weight of those products in total trade.

IMPACTS OF TARIFF PEAKS AND TARIFF ESCALATION ON DEVELOPING COUNTRIES

Tariff peaks and escalation force developing countries to focus on the products that are 'sanctioned', i.e., indirectly approved by importing countries. The EU's selective trade concessions to (for example) ACP countries perpetuated a serious dependency in some countries on specific export commodities. This was markedly the case for sugar production, which the EU imported as development aid. The EU, facing an excess domestic sugar production, then needed to export with subsidies more than it imported from those ACP countries.

Table 7: Impact of sensitive products on applied agricultural tariff rate

	Country	2004 MFN tariff (%)	MFN following December 08 proposals (%)	MFN using the same formulas, but no flexibility (%)	Total agricultural imports (mln $)
Developed	European Union	21.8	15.3	7.1	67 323
	United States of America	7.7	5.3	2.6	52 166
	Japan	48.3	34.9	14.1	32 429
	Canada	18.6	14.2	6.6	13 989
	Switzerland	66.4	47.2	20.9	6 436
	Australia	2.6	2.2	1.6	3 902
	Norway	40.2	31.4	18.8	2 557
	New Zealand	7.0	5.4	3.6	1 500
	Iceland	56.5	45.3	14.5	244
Developing	China	20.1	19.8	17.2	16 694
	Mexico	31.5	31.5	22.8	11 917
	Republic of Korea	105.1	104.4	61.5	9 233
	Hong Kong (SAR China)	0.0	0.0	0.0	7 631
	Chinese Taipei	17.9	17.7	15.2	6 444
	Indonesia	6.8	6.8	6.5	4 845
	India	58.7	58.7	54.1	4 842
	Malaysia	20.0	19.9	11.3	4 735
	Singapore	1.1	1.1	1.1	4 539
	United Arab Emirates	9.3	9.3	9.1	4 261
	Turkey	15.0	14.8	14.1	4 206
	Egypt	18.6	18.6	12.4	3 719
	Brazil	10.6	10.6	10.5	3 597
	Thailand	21.7	20.6	16.0	3 447
	Philippines	10.4	10.4	9.6	3 340

Source: ITC calculations.

* 2004 MFN tariffs are a trade-weighted average of MAcMap-HS 6 MFN tariffs for agricultural products. Other columns contain the trade-weighted average of tariffs after complete application of the December 2008 modalities or a variant that is described below. The December 2008 modalities have been calculated using a methodology presented in detail in a report that can be found at: http://y.decreux.free.fr/Rapport%20Doha%20DGTPE.pdf

This dependence can be observed in other markets, such as for cocoa, coffee or certain fruits. This has of course been a limiting factor for the development of those countries, but the implications go beyond simple economic impacts.

Entrenching slow growth

Concentration on a limited number of products, in particular primary products, has been identified as a potential cause of underdevelopment and slow growth. It is associated with deteriorating terms of trade and income volatility. This is a well-known risk, first described independently by Prebisch (1950) and Singer (1950). This has been also presented as the central cause of poverty in developing countries by Elamin and Khaira (2003), who argue that concentration on low-value-added products cannot result in strong economic development.

Econometric studies have shown that export concentration is statistically associated with slow growth, in particular for primary products (Gylfason 2004, De Ferranti et al. 2002).

Diversification seems to be a necessary condition for growth, as well as developing higher value-added products. Diversification per se is not, however, the sole answer to underdevelopment and it is necessary to take into account other factors. Brenton and Newfarmer (2007) review diversification in developing countries and find that fast-growing countries have diversified by expanding productivity and quality of existing products, and by increasing penetration into their traditional markets. Diversification into new products had, during the years they analysed (1994-2004), not contributed to growth significantly.

What the paper by Brenton and Newfarmer does not explore, is why successful developing countries have expanded only in existing export products. It is not clear whether this is due to restrictions in partner markets. They do, however, warn that product development and diversification are in general often hindered by domestic market failures that could be corrected. The non-tariff measures surveys discussed below indicate that domestic barriers do play a significant negative role.

Tariff peaks limit the export opportunities for products that countries can produce, particularly primary products, while tariff escalation limits the capacity to diversify those primary products into higher value-added processed goods.

Increasing vulnerability and degradation

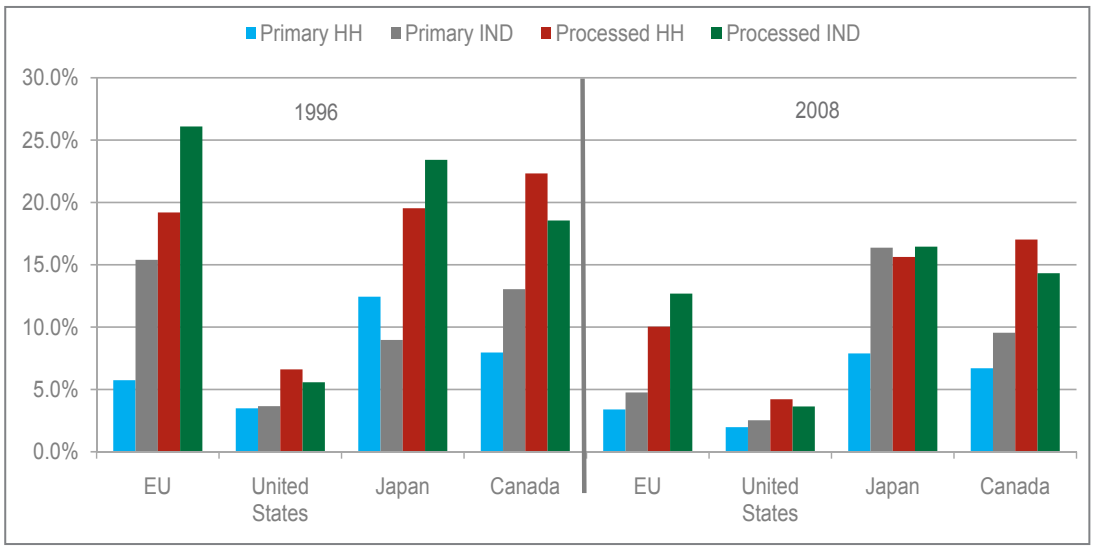
Limiting exports to a few items affects the vulnerability of developing countries to price fluctuations in the world market and also to climate impacts. The dependence of many developing countries on a limited number of primary products makes them more vulnerable to price fluctuations, which can have severe repercussions for their domestic economy. However, prices are not the only factor. Weather conditions or pests can easily reduce yields in the production of specific crops. For developing countries that trade in only a few primary products, the consequences of flooding, droughts or pests can be severe economic damage. The OECD (1996) argued that there is a link between tariff escalation and environmental damage in the exporting country. Concentration on a limited number of resources, in particular agricultural or mineral ones, can lead to important environmental degradation.

PRELIMINARY ANALYSIS OF TARIFFS AND TRADE FLOWS

It would be desirable for the relationships between tariffs and export performance to be captured by trade data. However, the effect of tariff escalation on trade patterns is difficult to establish in the absence of counterfactual simulations. What would exports for individual countries or country groups have been in the absence of the trade restrictions in partner countries? Answering this question will require a counterfactual modelling analysis which goes beyond the scope of this report, but will remain on the ITC agenda for the future.

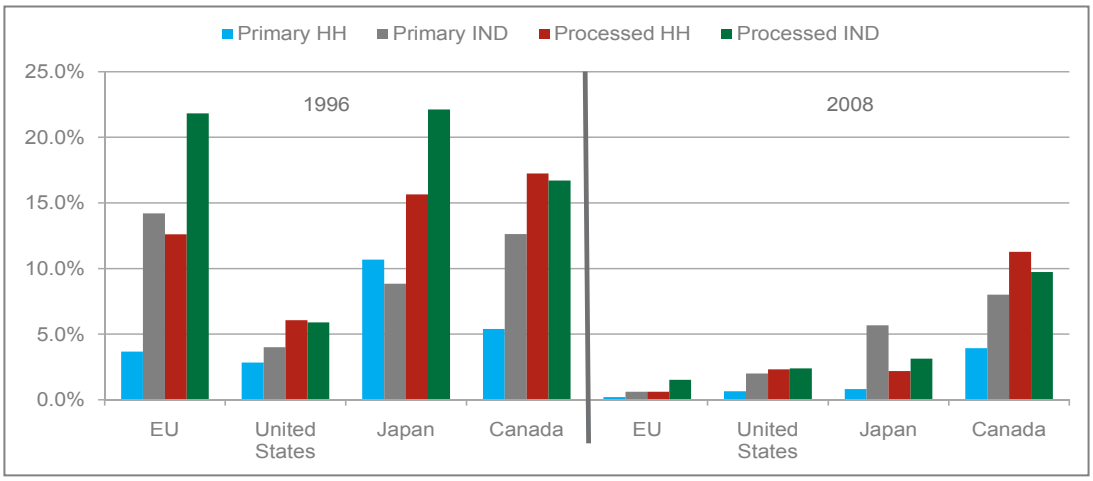
However, it is possible to examine the change in tariffs over time and assess whether there has been a corresponding trade impact. Three aspects can be analysed. The first is to monitor changes and the effects since the mid-1990s or the start of the implementation of the Uruguay round. The second is to analyse whether there has been a fall or increase in tariff escalation. Finally, looking at trade flows, there might be some sign of trade diversification and trade expansion in LDCs that is not found in other developing countries as a result of trade concessions to LDCs by OECD countries.

Figure 9: Tariff escalation changes in agricultural products from developing countries, 1996 and 2008



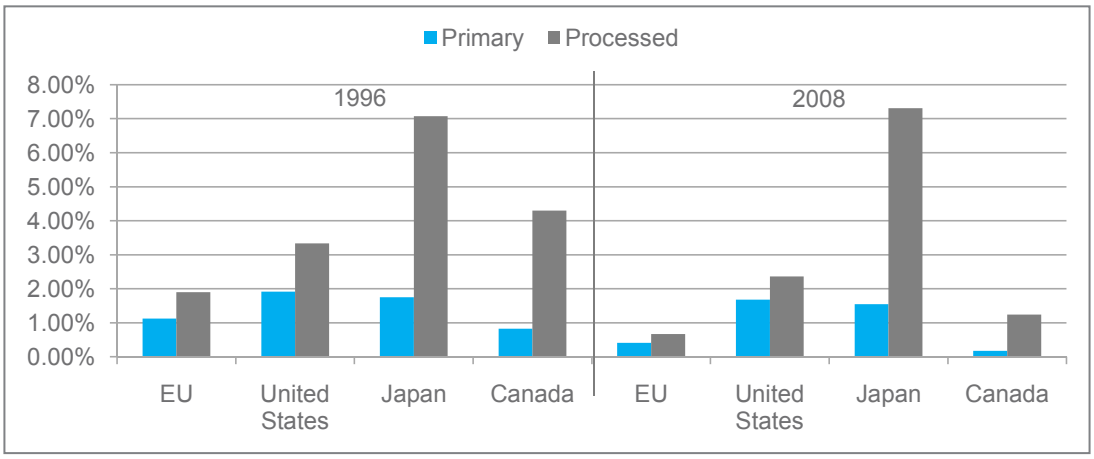
Source ITC data; based on BEC classification 111, 121, 112, 122 (food and beverages).

Figure 10: Tariff escalation changes in food and beverages for LDCs, 1996 and 2008



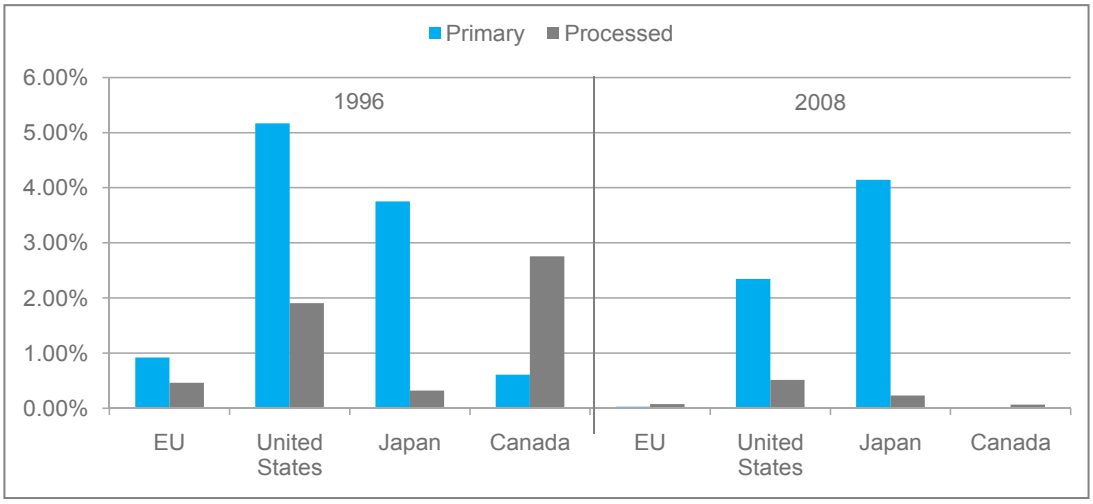
Source ITC data; based on BEC classification 111, 121, 112, 122 (food and beverages).

Figure 11: Tariff escalation changes for industrial products from developing countries, 1996 and 2008



Source: ITC data; based on BEC classification 21, 22 (industrial supplies).

Figure 12: Tariff escalation changes for industrial products from LDCs, 1996 and 2008



Source: ITC data; based on BEC classification 21 and 22 (industrial supplies).

TARIFF CHANGES OVER TIME

Figure 9 presents the changes in applied tariffs to developing countries and LDCs for agricultural primary and processed products directed to industry (IND) or household consumption (HH).

Figure 10 presents the same tariffs applied to LDCs. From the figures it is clear that there has been a marked reduction in applied tariffs for developing countries and LDCs, with the LDCs clearly facing much more favourable market access conditions in 2008. Applied tariffs on processed and primary goods have fallen and so has the tariff wedge in absolute terms. Applied tariffs are not equal to zero, even with initiatives such as EBA, because some tariffs had not been fully phased out in 2008. For example, EU sugar and rice only became tariff-free in 2009. Overall United States tariff levels were markedly below those of the other three reporting countries and region in 1996, with further reductions in 2008.

The comparison between 1996 and 2008 does not present the trends over time since 1996, but the data confirm a quite linear fall in tariffs for developing countries. For LDCs, the introduction of DFQF initiatives has provoked a clear, marked and abrupt fall in tariffs from 2001, especially in agricultural products (compare figure 9 and figure 10 for 2008.)

This tariff analysis suggests that access to major importers for developing countries has improved, at least as far as tariff barriers are concerned. Access for LDCs has increased most. Has this been reflected in growing trade flows from developing countries and especially LDCs?

CHANGES IN TRADE FLOWS OVER TIME

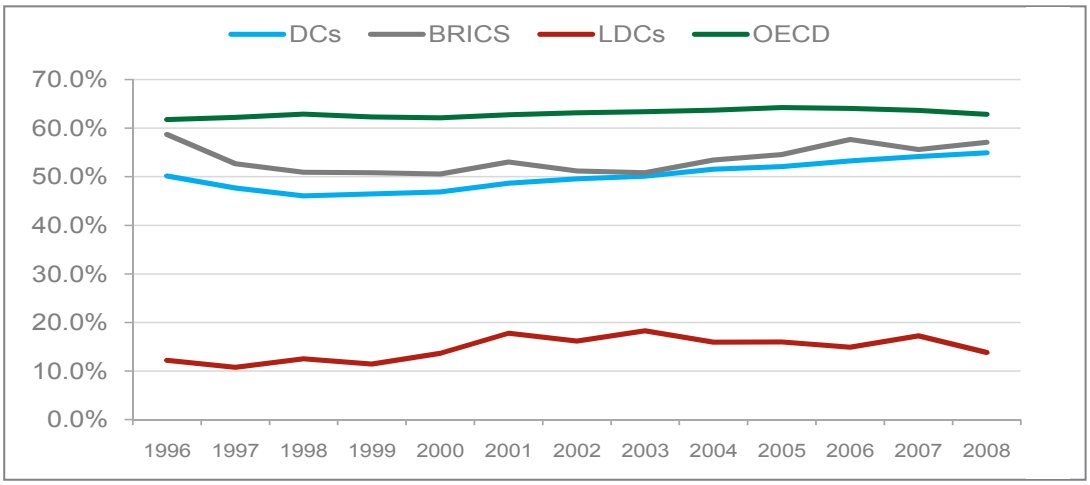
Plotting the share of processed vs primary exports in agriculture for the period 1996 to 2008 can identify a marked fall in the share of processed products particularly in developing countries during 1996 to 2001. The 1996 share of processed exports for developing countries had only been restored in 2001. LDCs show a more favourable pattern of increasing their processed export share, but starting from a very low base. Special trade concessions to LDCs through the non-reciprocal lifting of tariffs have raised the share of processed agricultural exports by about 5% over the period, especially since 2001 (figure 13).

In terms of value, the OECD has doubled its export values since 2000, more than the export value growth of all developing countries together. It is important to note that half of the exports by developing countries come from the BRICS countries and that LDCs still account for only 1.2% of the exports of the developing country group (figure 14). The LDC share remains very low in relative and absolute terms.

Trade expansion since 2000 shows that the export growth rate of developing countries has been dominated by the BRICS (figures 15 and 16). The increase in exports by non-BRICS developing countries has not been markedly stronger than for the OECD. LDC export growth has been similar to the developing country group, but below BRICS growth. The difference in export growth between LDCs and non-BRICS developing countries may be partially attributed to special trade preferences, giving a first indication that the higher tariffs for non-LDC developing countries present an important barrier. Nevertheless, it has to be noted that tariff barriers have been falling over the period overall and this is a contributing factor to the rise in exports by developing countries.

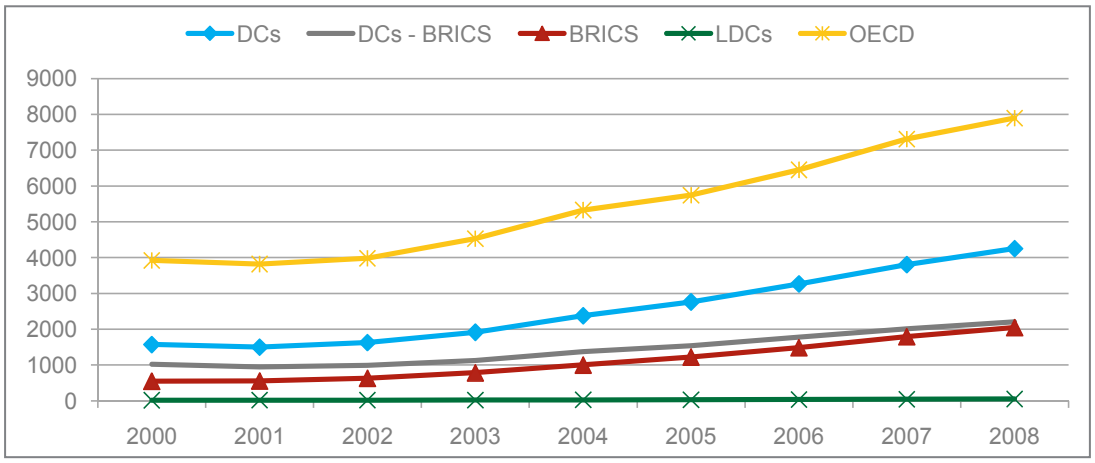
It is also noteworthy that tariff barriers and tariff escalation are highest in the agricultural sector, and that BRICS country exports are mainly non-agricultural products. LDCs that have a very high share of agriculture in exports do not show growth in trade higher than other developing countries despite the tariff liberalization for this group in the recent years.

Figure 13: Share of processed vs primary product exports in agriculture



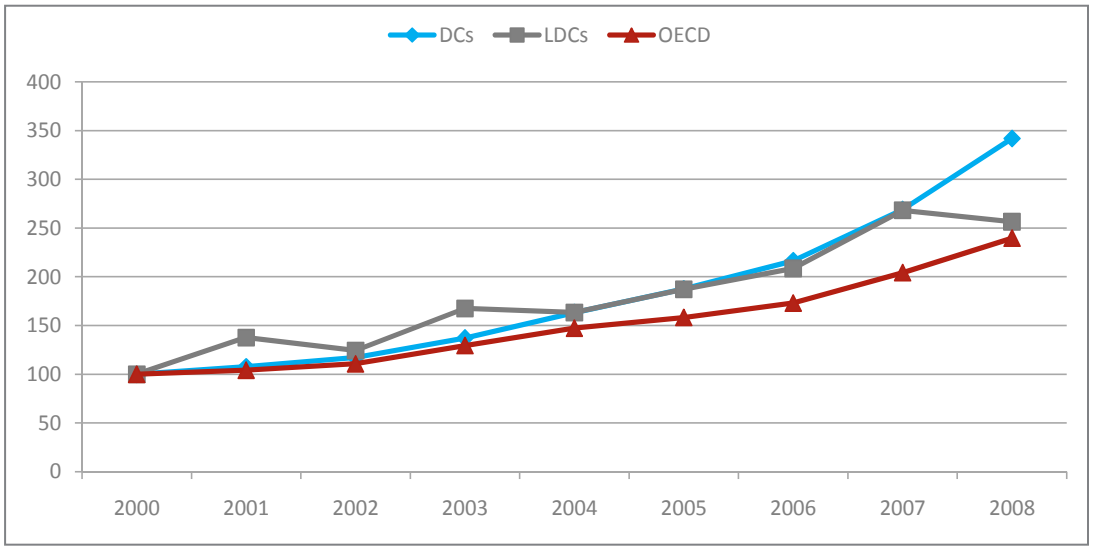
Source: ITC data; based on BEC classification 21, 22 (industrial supplies).

Figure 14: Export performance by country groups (excluding mineral and oils), $ billion



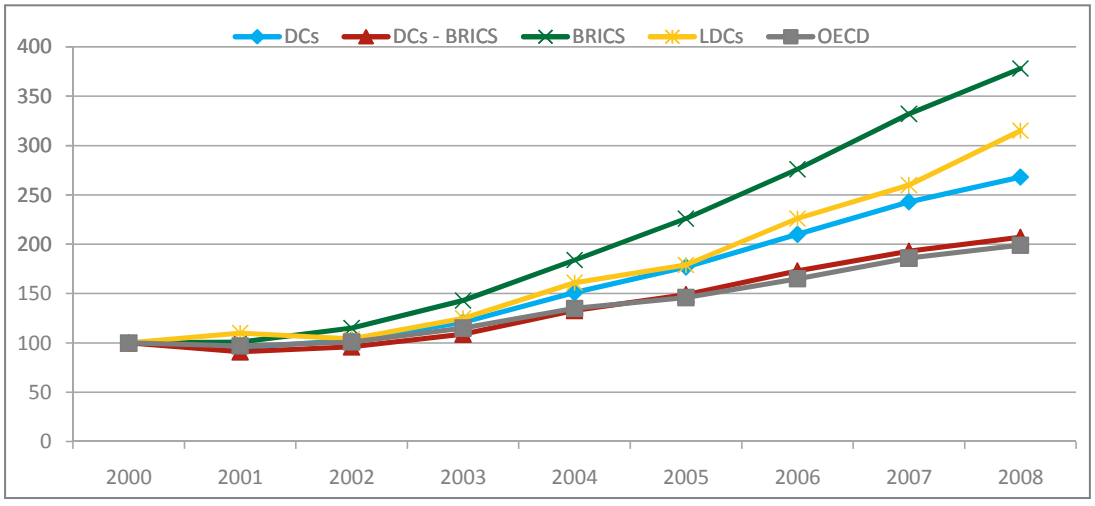
Source: ITC database. Trade flows are in nominal $ value.

Figure 15: Percentage increase in value of processed agricultural products



Source: ITC database. Trade flows are in nominal $ values.

Figure 16: Percentage increase in value of processed non-agricultural products (excluding oil and minerals)



Source: ITC database. Trade flows are in nominal $ value.

There are no signs that there is a stronger level of diversification into processed agricultural exports in LDCs compared to other developing countries. For LDCs, the increase in the value of processed agricultural products has not increased more than for developing countries as a whole (figure 15).

In the non-agricultural category (figure 16), the increase in the export value of processed products from LDCs is similar to the increase in the BRICS, more than double the developing country average without the BRICS. What is important is that this diversification into processed non-agricultural products remains high even if textiles are factored out. Hence export growth is not merely an effect of the textile export expansion, even though these have been very important during the period. Oil and minerals are also excluded. The analysis thus supports the view that trade liberalization has contributed to export growth in LDCs.

Some LDCs seem to have reacted to vertical and horizontal diversification. For the United Republic of Tanzania, for example, trade to the EU expanded in 2008 by 77 additional tariff lines at the HS 6 level compared to 2000. Nevertheless, performance has been mixed and some non-LDCs such as Kenya also have significantly diversified exports over the period even though they are not eligible for LDC preferences.

Unfortunately, the positive trends in the last decade have been lost with the effects of the financial crisis. ITC Trade Map Fact Sheet # 3 (2010) describes the impact of the financial crisis on trade for developing countries, presenting a rather bleak picture with trade value and volumes plummeting, especially in the oil and minerals sector. Interestingly, some exports fared relatively well, such as textiles, counterbalancing some of the negative trade effects. Nevertheless, the fall in exports caused by fall in demand is of a large magnitude for many developing countries. With highly price sensitive markets in the OECD, remaining tariffs became more damaging for exporters.

NON-TARIFF MEASURES

Exports of goods are subject to tariff and non-tariff measures (NTMs). NTMs encompass policy measures (except ordinary customs duties) that are related to export and import and can potentially have an economic effect on international trade. NTMs include a wide category of instruments such as sanitary and phytosanitary measures (SPS), technical barriers to trade (TBT), tariff rate quotas (TRQs), anti-competitive measures, import or export licences, export restrictions, customs surcharges, financial measures, and antidumping measures.[28]

NTMs are complex and specific to the applying country. They are also less transparent than tariff measures, making it difficult to calculate the cost of doing business in destination markets. Furthermore, the application and complexity of NTMs is increasing. According to ITC Client Surveys in 2008, NTMs are among the top three trade-related concerns.[29] Given that access to information, technical infrastructure and capacities to respond to NTM requirements is more limited in developing countries, exporters from these countries are more likely to be negatively affected by these measures.

From the perspective of exporting companies, compliance with NTMs represents an additional cost and extra time which reduce the competitiveness of their products. For instance, a company may need to send samples of their products to a testing laboratory, obtain conformity assessment certificates, translate them, and have their shipment inspected prior to delivery. To address NTM issues from a business-sector perspective, ITC has undertaken research and surveys to identify the most challenging NTMs in relation to products and export markets, namely those that companies experience as a serious hindrance for exporting their goods.

METHODS OF MEASURING NTMs

Two major approaches to estimating the impact of NTMs include direct measurements and quantification techniques. This report presents results based on a direct measurement, through large-scale company surveys on NTMs. The NTM surveys allow companies to identify and report the most burdensome NTMs that impact their export performance.

A need for understanding the company perspective on NTMs

Direct work with companies in developing countries confirms that their predominant concerns are related to NTMs, and business environments in general. ITC seeks to assist countries in better understanding the non-tariff obstacles to trade experienced by their business sector. NTMs are seen as a major determinant of market access and are at the forefront of bilateral, regional and multilateral trade negotiations. It is therefore vital to have a full understanding of their impact on exporting and importing companies.

A business perspective on the issue of NTMs is indispensable in the identification and definition of national strategies that can address and overcome obstacles to trade. Exporters and importers have to deal with NTMs on a day-to-day basis, and they know best about the specific challenges and problems they face. An understanding of their key concerns with regard to NTMs helps governments better define their action and capacity-building programmes.

To collect and classify the perceptions of importing and exporting companies towards burdensome NTMs and other obstacles to trade, ITC has designed and implemented NTM pilot surveys in six countries: Chile, India, the Philippines, Thailand, Tunisia and Uganda. NTM surveys have been undertaken or are currently ongoing in Burkina

Faso, Hong Kong (SAR China), Morocco, Sri Lanka, Paraguay, Peru and Uruguay, and aspire to cover all developing countries provided there is interest from national stakeholders.

Non-tariff measures vs non-tariff barriers

The terms of NTM (non-tariff measure) and NTB (non-tariff barrier) are often used interchangeably. However, in the current context, the distinction is very important.

A priori, NTM is a neutral concept – measures can have an effect on trade (either positive or negative) or no impact at all. Many of the recently introduced NTMs reflect the increasing sophistication of markets and consumer demand. NTMs can be introduced for legitimate reasons, for example, protection of human, animal and plant health. It is not possible and not required to 'eliminate' such NTMs; however, transparency, the reduction of the cost of compliance, and capacity building in the area of NTMs can facilitate international trade.

Unlike NTMs, the term NTB implies a negative impact. Some NTBs can emerge as consequences of NTMs, but others, like distance, have no relation to any NTM.

NTM surveys are designed to identify those NTMs that are most challenging for companies, without making any judgement on their legitimacy. By construction, the survey results contain only those NTMs that enterprises perceive as serious hindrances having a negative impact on their exports. Such measures are referred to as 'burdensome NTMs'. Furthermore, the reasons behind the difficulties with NTMs are also identified and recorded during the surveys.

From a company perspective, NTMs can become burdensome for various reasons. Firstly, NTMs per se can be very strict – for example tolerance limits for residues is set so low that it is hardly feasible to comply with such a requirement (or so costly that it does not make economic sense for the company). Secondly, exporting companies may not be aware of certain requirements, or of what exactly constitutes an acceptable level of residues and other substances.

Thirdly, the company may be aware of this requirement and even comply with it, but can still have problems demonstrating that its products are compliant. For example, the certification authority (or testing laboratory) can be too costly, located too far, or request informal payments. So, in this case the problem is related to an NTM, but is not directly caused by it. Such types of problems are referred to as

Box 4: NON-TARIFF MEASURES SURVEY METHODOLOGY

The ITC NTM surveys cover trade in goods. Interviews are based on questionnaires identifying NTMs and obstacles to trade that are very burdensome and current (experienced in the preceding year), as well as underlying reasons that turn NTMs into barriers for companies. Stratified random sampling is employed to ensure that the survey results are systematic and representative. Each surveyed economy is divided into sectors (strata) within which a number of companies are surveyed at random (300-1,500 companies per country).

The survey follows a two-step process. The first step includes short (around 5 min.) phone screens aimed at identifying the companies that are affected by burdensome NTMs or other obstacles to trade. Results of the phone screen interviews show the share of companies affected by barriers to trade. In a second step, in-depth, face-to-face interviews (around 40 min.) are carried out with companies that reported on the phone that their exports are affected by barriers to trade.

Face-to-face interviews obtain detailed information on the types of burdensome NTMs and other obstacles to trade at the product level and by partner country. Interviewers use a pre-defined questionnaire in order to capture the experiences of companies with NTMs by 'case'. Each case has several parameters, including the product, the type of NTM (as categorized in a new NTM classification, see Box 5), the country applying the NTM, and the description of related challenges. This methodology allows the collection of information only about very burdensome NTMs, and it is the interviewed companies that judge whether NTMs represent a barrier for their trade.

Several caveats must be kept in mind when comparing NTM survey results across countries. The data is based on companies' perceptions and judgements. Cultural differences, local language requirements and the complex nature of the topic may have influenced both respondents and the local partner (generally a specialized survey company) implementing surveys on behalf of ITC. In all surveyed countries, interviewers used a very similar questionnaire and categorized reported measures according to the NTM classification. Yet some of the reported problems might have been matched inconsistently against NTM codes from the NTM classification. Furthermore, certain trade problems are not likely to be known by companies and recorded in the NTM surveys, for example demand-side interventions, such as 'buy domestic' campaigns.

Finally, the surveys in Chile, India, the Philippines, Thailand, Tunisia and Uganda followed a slightly different methodology. Based on the feedback and experience from these pilot surveys, all subsequent surveys included a phone screening phase identifying and recording the experiences of companies with NTMs, including neutral/positive and negative ones. Coupled with a representative sample, the phone screen results permit us to calculate the shares of companies that are negatively affected by NTM-related problems in each country surveyed (these results are presented below).

procedural obstacles. They include a wide range of constraints, from administrative burdens and time delays to the behaviour of officials and lack of legal protection.

For instance, an interviewed fish exporter from the Philippines has difficulties with tolerance limits for residues or contamination by certain substances in foods and feeds because he finds 'EU countries' standards are too high.' A similar perception was reported by a company in Burkina Faso exporting sesamum seeds to Israel and Switzerland. These are examples when measures applied by developed countries have more stringent requirements than similar NTMs applied by other importing markets. A Philippine exporter to Japan reported: 'Okra should be classified among crops with a listing of acceptable pesticide/chemical use. Absence of such a listing automatically gives the shipment a failed rating.' In this case the exporter has difficulties not because the requirement is stringent but because it is changing too often and he does not have access to the latest information.

The term NTM-related problems is used to describe all types of obstacles experienced by companies, including burdensome NTMs and procedural obstacles described above, as well as bottlenecks related to export-related facilities and the business environment. Companies can experience NTM-related problems in their home country, as well as in the partner, transit and destination countries.

MAJOR SURVEY FINDINGS

The survey results suggest that a large proportion of companies are affected by NTM-related problems, most of which are technical measures. The impact is greater for companies exporting from landlocked developing countries (LLDCs). There is a wide variation in NTMs depending on the export sector and importing market. Difficulties with NTMs applied by partners in the home regions as well as domestic impediments constitute a large share of reports.[30]

Affected companies

In most countries significant shares of companies have experienced NTMs that were extremely difficult and, therefore, were perceived as barriers to trade. Among surveyed countries the largest share of affected companies are in Sri Lanka (69.6%) and the smallest in Hong Kong (SAR China) (23.1%).

Is there a systematic bias against small companies?

The surveys challenge the commonly held perception that small companies[31] more often have negative experiences with NTMs than larger companies (table 8). Small companies can be more affected than larger ones whenever compliance with NTMs represents a fixed cost. In such cases smaller shipments translate into larger per unit cost of compliance with NTMs. The share of affected companies was larger among small companies interviewed in Morocco as well as Paraguay. However, the surveys in Peru and Sri Lanka did not reveal any systematic differences between small and large enterprises, whereas Hong Kong (SAR China) and Burkina Faso results did not lend support to the hypothesis of size bias. The variation in results may be explained by the availability of services provided by specialized forwarding agents in Peru and Hong Kong (SAR China) and used by small companies, but this hypothesis needs further investigation.

Other company characteristics, such as presence of foreign ownership and the time the company has been in operation may also have sizable implications for the firms' experience with NTMs, but this topic too merits further analysis.

Table 8: NTM incidence by exporting company size in 2010

Surveyed country	Share of affected exporting companies, %			No. of exporting companies screened on the phone	
	Small	Medium and large	Total**	Small	Medium and large
Burkina Faso*	60.3	70.7	63.2	58	41
Hong Kong (SAR China)	22.8	27.1	23.1	1 834	107
Morocco*	55.3	38.5	41.0	123	457
Paraguay*	65.2	59.5	60.9	92	185
Peru	43.8	43.7	41.8	130	490
Sri Lanka	70.2	70.0	69.6	47	347

* Results are preliminary because the survey analysis is still ongoing. Based on reports by exporting (and forwarding) companies.
** Total affected companies includes some for which information on company size is not available and hence this is not a weighted average of the size distribution.

Table 9: Average share of reported NTMs

Non-technical measures	29.4%
Pre-shipment inspection, other customs formalities	8.3%
Price control measures	1.4%
Quantity control measures	2.6%
Charges, taxes and other para-tariff measures	5.3%
Finance measures	2.7%
Export related measures	6.6%
Other	2.5%
Technical barriers to trade	71.6%
Tolerance limits for residues…*	2.9%
Labelling, marking and packaging requirements	8.3%
Traceability requirements	6.5%
Testing requirements	5.1%
Certification requirements	12.7%
Other technical measures	35.1%

Note: This table is based on the (face-to-face) reports of exporting and importing companies (and forwarding companies) in Chile, India, Philippines, Thailand, Tunisia, Uganda, Burkina Faso, Hong Kong (SAR China), Peru, Sri Lanka.

* Tolerance limits for residues and contaminants or restricted use of certain substances.

NTM types and incidence

Technical measures, which group together all sanitary and phytosanitary measures (SPS) and technical barriers to trade (TBT), are among the most reported in all surveyed countries (71.6% on average, see **table 9**). These measures include regulations related to product characteristics or to the associated production process. Among them, certification (12.7% of all reported technical measures), labelling, marking and packaging requirements (8.3%) and traceability requirements (6.5%) were most frequently reported. As for non-technical measures, pre-shipment inspection and other customs formalities (8.3% of all reported measures), export-related measures and charges, taxes and other para-tariff measures (5.3%) were among the largest concerns for interviewed companies, both exporting and importing.

A country-by-country breakdown shows that technical measures are the major concern in all countries, but the types of most reported technical measures vary greatly. In Burkina Faso and the Philippines, 47.1 % and 24.4% respectively of all technical measures refer to certification, while in Uganda certification was mentioned only in 3.2% of cases (**table 10** below). In Uganda, India and Chile, labelling, marking and packaging are reported more often than in other countries (10.8%, 14.3% and 19.6% respectively). Traceability requirements are a relatively important issue in Thailand and Tunisia (14% and 11.4% respectively).

Companies find it challenging to comply with technical measures. Possible explanations are in the complex nature of these measures, as well as in a lack of transparency

Table 10: Share of reported NTMs, by surveyed country

Surveyed country (exporting)	Selected technical measures (SPS and TBT)					Pre-shipment inspection and other customs formalities %	Charges, taxes and other para-tariff measures %	Total absolute no. of NTM cases
	Labelling, marking and packaging requirements %	Traceability requirements %"	Testing requirements %"	Tolerance limits for residues and contaminants or restricted use of certain substances %	Certification requirements %			
Burkina Faso	1.5	1.5	1.5	0.0	47.1	1.5	11.8	68
Hong Kong (SAR China)	4.0	7.5	4.0	0.0	8.0	10.6	7.0	199
Chile	19.6	4.3	2.5	2.7	16.6	14.0	1.2	673
India	14.3	0.9	2.2	1.0	13.3	7.7	4.0	776
Peru	8.2	0.0	5.2	3.7	15.7	0.7	3.7	134
Philippines	8.5	4.0	4.7	5.5	24.4	3.1	2.7	851
Sri Lanka	0.8	0.4	7.9	0.0	27.3	0.4	4.1	238
Thailand	9.4	14.0	7.8	9.2	15.3	2.3	0.2	1803
Tunisia	8.9	11.4	4.9	1.1	10.2	22.6	4.7	810
Uganda	10.8	5.4	11.6	0.2	3.2	23.1	7.4	593

Note: Based on the reports by exporting companies.

Table 11: Product groups most affected by NTMs

Surveyed country	1st most reported product group	Share in total no. of cases, %	2nd most reported product group	Share in total no. of cases, %	3rd most reported product group	Share in total no. of cases, %	Total no. of NTM cases
Burkina Faso	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	26.5	Oil seeds and oleaginous fruits	19.1	Edible fruits and nuts	14.7	68
Hong Kong (SAR China)	Electrical machinery, equipment and parts	35.2	Plastics and articles thereof	10.1	Miscellaneous manufactured articles	5.5	199
Chile	Edible fruits and nuts	34.0	Beverages, spirits and vinegar	11.3	Fish and crustaceans	7.6	673
India	Electrical machinery, equipment and parts	7.0	Boilers, machinery and mechanical appliances	4.8	Man-made filaments; strip and the like	4.0	776
Peru	Edible vegetables and certain roots and tubers	14.1	Articles of apparel and clothing accessories, knitted or crocheted	11.9	Articles of apparel and clothing accessories, not knitted or crocheted	10.4	134
Philippines	Wood and articles of wood; wood charcoal	11.5	Furniture	11.4	Edible fruits and nuts	9.4	851
Sri Lanlka	Coffee, tea, maté and spices	42.0	Apparel and clothing accessories, not knitted or crocheted	11.8	Apparel and clothing accessories, knitted or crocheted	11.3	238
Thailand	Edible fruits and nuts	9.3	Fish and crustaceans	8.3	Electrical machinery, equipment and parts	5.3	1803
Tunisia	Apparel and clothing accessories, not knitted or crocheted	13.0	Apparel and clothing accessories, knitted or crocheted	7.7	Boilers, machinery and mechanical appliances	6.0	810
Uganda	Coffee, tea, maté and spices	18.5	Edible fruit and nuts	9.3	Plastics and articles thereof	4.2	593

Note: Based on the reports by exporting companies. Product groups are defined at the 2-digit level of the Harmonized System (HS 2).

(measures change often) and access to information (measures vary significantly across importing countries). These results are partly driven by the export basket of each country surveyed, as discussed in the following subsection.

Most reported export products subject to NTMs

The results of the NTM surveys have confirmed that NTMs are very sector-specific. For example, exporters report relatively more NTMs related to agricultural goods. This is somewhat expected, as agricultural products include food and feed, and their control is essential for ensuring the health and well-being of consumers and protection of the environment. All major importing markets have established special control systems related to products destined for direct consumption by people and animals, such as the Rapid Alert System for Food and Feed (RASFF) of the European Union.[32]

The largest share of NTM cases is reported for export of fruits and nuts. In Burkina Faso and Chile 14.7% and 34.0% of all reports are about these products (**table 11**). The share of reports on fruits and nuts is disproportionately larger than the share of reports on any other product group, even when compared among agricultural products, most likely because fruits are perishable. Extra time required to complete all procedures related to NTMs can be detrimental for fresh products.

Exporters in the Philippines, Thailand and Uganda also reported that edible fruits and nuts were among products most difficult to export (just above 9% of all reports in each of these countries were related to edible fruits and nuts). Other products of most concern to interviewed exporters include electrical machinery (7%) in India, wood and related articles (11.5%) in the Philippines, apparel and clothing accessories, not knitted or crocheted (13%) in Tunisia, and coffee, tea, maté and spices (18.5%) in Uganda.

Partner countries applying NTMs

NTM surveys confirmed that partner countries that import products are a strong determinant of the incidence of NTMs.

Table 12: Most reported partner applying NTMs

Surveyed country (exporting)	1st most reported partner	Share in total no. of cases, %	Export share, %	2nd most reported partner	Share in total no. of cases, %	Export share, %	3rd most reported partner	Share in total no. of cases, %	Export share, %	Absolute no. of NTM cases
Burkina Faso	EU	45.6	27.9	Côte d'Ivoire	11.8	3.8	Mali	7.4	1.2	68
Hong Kong (SAR China)	EU	33.2	12.5	China	22.1	52.2	United States	17.6	11.6	199
Chile	United States	14	14.5	Brazil	11.6	6.2	EU	10.5	27.8	673
India	EU	23.7	25.6	United States	12.5	14.3	United Arab Emirates	12.4	8.4	776
Peru	EU	32.8	23.4	United States	17.2	24.3	Ecuador	12.7	3.5	134
Philippines	United States	28.7	17.8	EU	19.9	18.4	Japan	7.9	15.6	851
Sri Lanka	EU	34.9	37.3	United States	13	23.5	India	6.7	4.7	238
Thailand	EU	30.1	14.2	United States	18.6	12.2	Japan	11.7	11.8	1 803
Tunisia	EU	63.5	70.2	Libyan Arab Jamahiriya	15.6	5.5	Algeria	8.5	2.4	810
Uganda	EU	27.3	27.9	Rwanda	18.5	8.5	Kenya	9.9	9.8	593

Note: Based on the reports by exporting companies.

Measures applied by the United States were among the most common problems in the Philippines and Chile, accounting for 28.7% and 14% respectively of all reports (table 12). For the surveyed exporters in Burkina Faso, India, Thailand, Tunisia, and Uganda, the European Union is the most reported partner applying burdensome NTMs. Among EU countries, France, Italy, Belgium and the United Kingdom were the most reported difficult markets. Japan and Canada were also perceived as countries applying burdensome NTMs. In table 12 the developed importing countries dominate as first most reported partner.

Somewhat unexpectedly, a number of developing countries were reported as among the most difficult importing markets. Strikingly, most of these developing partner countries are located in the same region and are members of the same trade agreements as the corresponding surveyed country.

NTM survey results indicate that the membership in the same trade agreement does not insulate exporting countries from problems with NTMs. Burkina Faso is a member of the Economic Community of West African States (ECOWAS), together with Côte d'Ivoire which was mentioned in 12.9% of all reports as the partner country applying burdensome

Table 13: Most reported partner applying NTMs, trade weighted

Surveyed country (exporting)	1st most reported partner	No. of cases per million $ of exports	Export share, %	2nd most reported partner	No. of cases per million $ of exports	Export share, %	3rd most reported partner	No. of cases per million $ of exports	Export share, %	Absolute nr of NTM cases
Burkina Faso	Canada	8.94	0.14	Mali	0.54	2.27	Côte d'Ivoire	0.51	3.78	68
Hong Kong (SAR China)	EU	0.0017	12.5	Australia	0.0011	1.4	United States	0.00098	11.6	199
Chile	Israel	0.16	0.1	Cuba	0.86	0.1	Argentina	0.1	1.8	673
India	New Zealand	0.075	0.15	Mauritius	0.035	0.2	Australia	0.026	1	776
Peru	Russian Federation	0.19	0.24	Ecuador	0.04	3.52	Venezuela (Bolivarian Republic of)	0.03	5.45	134
Philippines	Egypt	0.57	0.04	Saudi Arabia	0.54	0.1	Qatar	0.4	0.03	851
Sri Lanka	Mexico	0.2	0.9	Pakistan	0.2	0.8	Australia	0.1	1.2	238
Thailand	Bahrain	0.07	0.09	Canada	0.03	0.9	New Zealand	0.03	0.5	1 803
Tunisia	Mali	0.7	0.05	Algeria	0.18	2.39	China	0.16	0.32	810
Uganda	Norway	5.47	0.52	Denmark	4.1	0.1	Egypt	2.93	0.2	593

Note: Based on the reports by exporting companies. First most reported partner country is selected among importing markets with more than 10 cases reported (more than 5 cases for Burkina Faso).

NTMs. A similar situation was reported in Uganda, which is a member of East African Community (EAC) together with Kenya (reported as third most difficult partner for Ugandan exporters). Chilean exporters had difficulties with Brazil, even though both countries are parts of the Latin American Integration Association (ALADI). For Tunisian exporters, the second and third most difficult markets are Libyan Arab Jamahiriya, applying 15.6% of all reported NTMs, and Algeria (8.5%) – despite their common memberships in the League of Arab States.

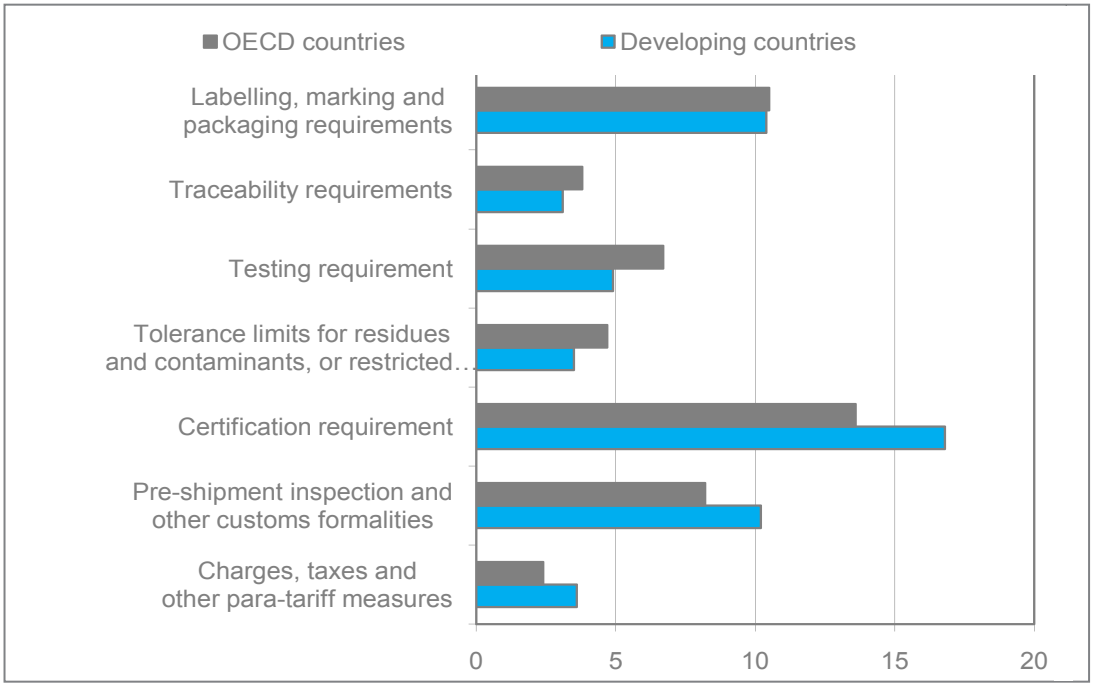
These results may suggest that NTM provisions of existing trade agreements are weak or not fully implemented. The results can also indicate that NTMs are misused for protectionist purposes, serving as a substitute for tariffs. When tariffs are low, importing countries may have more incentives to introduce NTMs. This hypothesis is preliminary and needs further data and analysis.

In general the results related to partner countries applying NTMs need to be taken with a degree of caution as they may suffer from 'endogeneity bias'. Countries that trade more are more likely to enter into a trade agreement, and are also more likely to have a large number of trade problems recorded in the NTMs survey. At the same time, the absolute number of cases is a good indicator of where NTM-related assistance is most required, since making trade easy between countries with large trade flows will have a greater impact on developing country exports.

To remove the size impact of importing markets, the survey results can be presented as number of cases per million $ of exports for each trading partner. As **table 13** shows, the United States and EU are not the most difficult partners if NTM incidence is weighted by the value of bilateral exports. Furthermore, a number of developing countries are reported among those most difficult. In Chile exporters reported 0.1 NTM cases per million $ of exports to Argentina, in the Philippines the most difficult partner given the value of exports is Egypt (0.6 cases per million $ of bilateral exports), in Thailand – Bahrain (0.1), and in Tunisia – Algeria (0.2). An interesting observation is the very marginal share of exports of the surveyed countries to the most difficult markets, ranging from 0.04% (share of exports to Egypt in the total exports of the Philippines) to 12.5% (share of exports to the European Union in the total exports of Hong Kong (SAR China), thus signalling the high potential impact of trade barrier removal. In **table 13** the developed importing countries are much less prominent. The table shows the importance of trade weighting as the most reported partner country applying NTMs ceases to be a developed country in the cases of Peru, Phillipines, Sri Lanka, Thailand and Tunisia.

The surveys indicate that both the incidence of NTMs and their type depend on the applying countries. The aggregated view is presented in figure 17, which shows shares of several most reported NTM groups in the total number of NTMs. Applying countries are grouped into OECD countries (excluding Chile, Mexico, Korea and Turkey) and developing countries (all other countries). The share of reported technical measures, such as labelling, marking and packaging requirements, traceability requirements, testing requirements, and tolerance limits for residues and contaminants, or restricted use of certain substances, is

Figure 17: Types of reported measures, by OECD and developing countries applying NTMs



Note: Based on the reports by exporting companies in Burkina Faso, Chile, India, Philippines, Thailand, Tunisia and Uganda. Percentages represent shares of the groups of NTMs in the total number of NTMs across all countries.

higher in OECD countries in comparison with developing countries. Consequently, exporters to developing countries were likely to be relatively more affected by non-technical measures, such as pre-shipment inspections and other customs formalities (representing 10.2% of all measures applied by developing countries and 8.2% of all measures applied by developed countries), as well as charges, taxes, and other para-tariff measures.

Thus, the surveys suggest that exports to developing countries were relatively more affected by inspections, formalities and charges, while exports to OECD countries were subject to technical measures that focused on the characteristics of the product and production process.

Domestic impediments to trade

Although the majority of measures are applied by export destination countries, actual problems can be located not only in the destination countries, but also at home. The analysis of reported cases suggests that many of the problems faced by the surveyed companies stem from weak customs and administrative procedures and a lack of export facilities in their home countries.

Reports from furniture exporters in the Philippines can illustrate this situation. Furniture is an important export item in the Philippines, and around 60% of total furniture exports were bound for the United States in 2008 (the year in which the NTM survey was implemented in the Philippines). The survey recorded a very large number of reports (11.4%) in this trade. At the same time, Thai furniture exporters reported almost no difficulties trading with the United States, though like the Philippines, Thailand exported a large part of its furniture to the United States in 2008 (251 out of $1,385 million).

A closer analysis of furniture-related reports reveals that 50% of all cases refer to the certificates that are requested by the United States but issued by the agencies in the Philippines. In these cases, low efficiencies in Philippine agencies, in particularly customs administration, were reported as reasons making compliance difficult. Philippine exporters have also reported a significantly high number of cases of irregular payments. These observations are in line with a Philippines assessment by the Enabling Trade Index 2009 (World Economic Forum), which ranks the efficiency of customs administration, efficiency of import-export procedures and the transparency in border administration relatively low.

Similar cases can be found across all surveyed countries. Many NTMs do not discriminate against the particular origin of goods, yet the companies' ability to comply with NTMs varies significantly across exporting markets. The most striking results are in Burkina Faso, where exporters perceived domestic impediments as major obstacles to trade in almost all surveyed sectors.

Landlocked countries

Exporters from landlocked developing countries (LLDCs) were a priori expected to be more affected by NTMs, because most of their exports would need to cross two borders – the transit and final destination countries. The ongoing 2010 surveys confirm these expectations. In Burkina Faso and Paraguay 63.2% and 60.9% of all interviewed exporters respectively had negative experiences with NTMs (refer to **table 8**). This share is much higher in comparison to other developing countries that have direct access to seaborne trade.

A landlocked position does not, however, automatically translate into export disadvantage. Landlocked countries that border developed countries with efficient business environments are even more open to trade than their non-landlocked neighbours. For example, there are successful exporters among landlocked developed countries, often due to their small size and proximity to large markets. The export-to-GDP ratio of landlocked countries in the OECD is 0.54 whereas the export-to-GDP ratio for non-landlocked OECD countries stands at 0.22.

On the contrary, most landlocked developing countries are surrounded by other developing countries or least developed nations that have an inefficient business environment and difficult border procedures. For example, Uganda is ranked 145th out of 183 countries in trading across borders,[33] and its five neighbouring countries are ranked similarly low or even lower. During the NTM survey in Uganda, many exporting companies reported challenges they experienced while passing through Kenya to the port of Mombassa. Most reported problems such as the poor quality of train and road infrastructure, frequent controls coupled with informal payments, as well as insufficient export-related facilities (e.g., cooled storage). These difficulties render the export process and compliance with NTMs more burdensome and costly for Ugandan exporters.

To improve NTM transparency, and thus market access conditions, ITC is undertaking company-level surveys in developing countries across the world. The survey methodology sets aside questions on the legitimacy of NTMs, and places emphasis on a company's perception of the impact of NTMs on their export performance.

Results from the first ten countries shed light on variations that exist in the incidences and types of burdensome NTMs experienced by exporting companies. Small companies and companies from landlocked developing countries are more affected by NTM-related problems. The prevailing types of barriers are linked to the products and the destination market. Major obstacles are experienced both in importing developed countries as well as in developing countries, often members of the same trade agreements.

Even though NTMs are tightly linked to the applying country, reasons that lead an exporting company to qualify an applied measure as burdensome are not necessarily associated with the country that applies the measure.

Obstacles may be caused by factors linked to the home country of exporters — for example, a lack of export-related infrastructure and efficient procedures.

This leads to the two most important results of the NTM surveys. First, market access begins at home. There is a large scope for domestic reform and improvement in institutions and policies. Second, a trade-conducive business environment is a cornerstone to improving company export competitiveness, translating into more successful export performance at country level. These efforts need to go in line with multilateral, regional and bilateral negotiations aimed at improving the transparency and predictability of NTMs and removing procedural obstacles and other barriers to trade.

PREFERENCES FOR LEAST DEVELOPED COUNTRIES

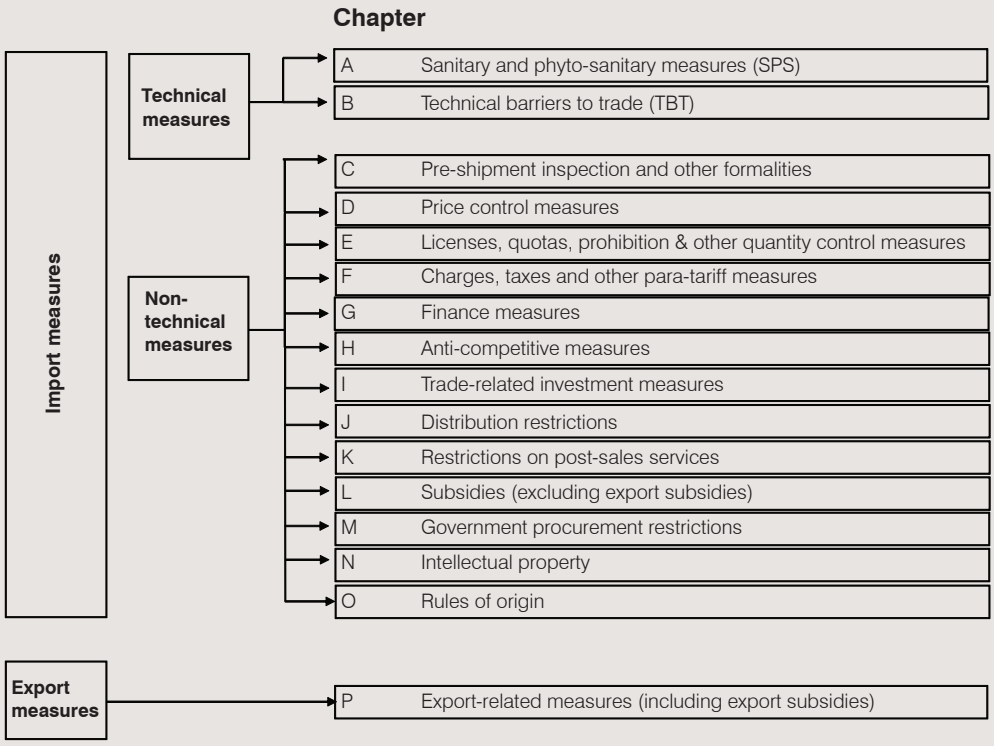
Major developed economies and several emerging markets grant a variety of non-reciprocal trade preferences to many developing countries; preferential tariff treatment schemes are one mechanism to boost developing country export performance. Since the GSP was launched in the 1970s, countries giving preference have continued to broaden the range of products covered and deepen tariff cuts for eligible products. However, there is wide variety in the use of preferences and their economic value to beneficiaries. In fact, only a few countries significantly benefit from preference programmes under the current LDC export

BOX 5: NON-TARIFF MEASURE CLASSIFICATION FOR TRADE IN GOODS

A new international taxonomy of NTMs was prepared by a group of technical experts from eight international organizations: FAO, IMF, ITC, OECD, UNCTAD, UNIDO, World Bank and WTO. This classification is used to collect, classify, analyse and disseminate information on NTMs received from official sources, e.g., government regulations, and for working with perception-based data, e.g., surveys.

The NTM classification differentiates measures according to 16 chapters (denoted by alphabetical letters), each comprising 'sub-branches' (1-digit), 'twigs' (2-digits) and 'leafs' (3-digits). This classification drew upon the existing, but outdated, UNCTAD Coding System of Trade Control Measures (TCMCS) classification on NTMs, and has been modified and expanded by adding various categories of measures to reflect current trading conditions. The current NTM classification (figure 18) was finalized for adoption in November 2009.

Figure 18: The structure of NTM classification



Chapter A, on sanitary and phytosanitary measures, refers to laws, decrees, regulations, requirements, standards and procedures to protect human, animal or plant life or health from certain risks such as the establishment or spread of pests, diseases, disease-carrying organisms or disease-causing organisms; risks from additives, contaminants, toxins, disease causing organisms in foods, beverages or feedstuffs. The chapter is also known as SPS.

Chapter B, on technical measures, contains measures referring to technical specification of products or production processes and conformity assessment systems thereof. It is also known as TBT (technical barriers to trade). TBT measures are most often applied to industrial goods. Technical measures can be also applied to agricultural products. An NTM applied to agricultural products is classified as a technical measure if the objective of this measure is not food safety. (If the objective is food safety, than the measure is classified as SPS).

Chapter C, on pre-shipment inspection and other (customs) formalities, refers to practice of checking, consigning, monitoring and controlling shipment of goods before or at entry into the destination country. Inspections and quarantine are examples of such measures.

Chapter D, on price control measures, includes measures implemented to control the prices of imported articles in order to: support the domestic price of certain products when the import price of these goods are lower; establish the domestic price of certain products because of price fluctuation in domestic markets, or price instability in a foreign market; and counteract the damage resulting from the occurrence of 'unfair' foreign trade practices.

Chapter E, on licences, quotas, prohibitions and other quantity control measures, includes on one hand measures that restrain the quantity traded, such as quotas, and on the other hand, licenses and import prohibitions that are not SPS-related (SPS-related licenses and prohibitions are classified under chapter A).

Chapter F, on charges, taxes and other para-tariff measures, refers to measures, other than tariffs measures, that increase the cost of imports in a similar manner, i.e., by a fixed percentage or by a fixed amount; they are also known as para-tariff measures.

Chapter G, on finance measures, refers to measures that are intended to regulate the access to and cost of foreign exchange for imports and define the terms of payment.

Chapter H, on anti-competitive measures, refers to measures that are intended to grant exclusive or special preferences or privileges to one or more limited group of economic operators.

Chapter I, on trade-related investment measures, covers measures that restrict investment by requesting local content, or requesting that investment should be related to export to balance imports.

Chapter J, on distribution restrictions, refers to restrictive measures related to internal distribution of imported products.

Chapter K, on restriction on post-sales services, refers to measures restricting producers of exported goods to provide post-sales service in the importing country.

Chapter L, on subsidies, includes measures related to domestic support provided by a government or government body to producers, being a particular industry or company, such as direct or potential transfer of funds (e.g., grants, loans, equity infusions), payments to a funding mechanism and income or price support.

Chapter M, on government procurement restrictions, refers to measures controlling the purchase of goods by government agencies, generally by preferring national providers.

Chapter N, on intellectual property, refers to measures related to intellectual property rights in trade. Intellectual property legislation covers patents, trademarks, industrial designs, lay-out designs of integrated circuits, copyright, geographical indications and trade secrets.

Chapter O, on Rules of Origin, covers laws, regulations and administrative determinations of general application applied by government of importing countries to determine the country of origin of goods.

Chapter P, on export-related measures, encompasses all measures that countries apply to their exports. It includes export taxes, export quotas or export prohibitions, among others. This chapter has to be used when the measure is applied by the exporting country, i.e., when certain documentation has to be granted by the home country's customs, which is not required by the importing partner. (All the other chapters (A to O) refer to measures that countries apply to their imports.)

structure. This section analyses the impact of preference programmes towards LDCs offered by Australia, Canada, the EU, and the United States.[34]

THE SCOPE OF PREFERENCES

The characteristics of preference schemes vary between countries giving preference in terms of country coverage, product coverage and compliance requirements, such as rules of origins (RoO).

Many OECD countries provide selected developing countries with preferential tariff treatments under the GSP. In addition to GSP programmes, preference-giving countries offer additional non-reciprocal preference programmes on the basis of geography or economic background, for example programmes for specific regions such as the Caribbean or African countries. The United States has offered several non-reciprocal preference programmes to developing countries, including the Caribbean Basin Initiative (CBI), The Andean Trade Preference Act (ATPA), and the African Growth and Opportunity Act (AGOA).

In terms of country coverage, each preference-giving country has its own definition of developing countries and as a result the number of potential beneficiary countries differs. For example, the United States designates 43 countries as GSP LDC beneficiaries, excluding six LDCs listed by the United Nations, namely Eritrea, Lao People's Democratic Republic, the Maldives, Myanmar, Senegal, and Sudan.[35] Moreover, certain eligibility conditions, such as labour standards or governance, must be met to access some programmes. The analysis in this report covers 50 countries (49 LDCs plus Cape Verde) regardless of their

Table 14: Preference programmes applied by selected OECD countries relevant to LDCs

Number of LDCs	Programmes relevant to LDCs	Unweighted average tariffs≠§	
		LDCs (%)	Non-LDCs (%)
Australia (50)	MFN	3.78	
	GSP scheme***	0.00 (45)	1.8
	Forum Island Country (FIC) (incl. GSP preferences)	0.00 (5)	0.28
Canada (49)	MFN rates	6.77 (1)	
	GSP schemexxx	2.69 (49)	5.42
	The Commonwealth Caribbean Countries tariff treatment (incl. GSP preferences)	…	2.69
EC (50)	MFN rates	7.85	
	GSP scheme‡	0.08 (40)	5.63
	GSP + scheme		3.21
	EPA (incl. GSP preferences)	0.08 (10)	0.16
Japan (49)	MFN rates	9.31 (1)	
	GSP scheme†	1.07 (49)	8.14
United States (43) ***	MFN rates	4.43 (5)	
	GSP scheme	2.29 (14)	3.14 (1)†
	AGOA (incl. GSP preferences)	2.03 (11)	2.04
	AGOA Apparel (incl. GSP preferences)	1.49 (17)	1.50 (1)†
	CBI (incl. GSP preferences)	1.42 (1)	1.42

Source: ITC MacMap database, ITC calculations. 2008 tariff schedules are used for Australia and EC while 2009 tariff schedules are used for Canada and the United States.

Note:

≠ Number of eligible countries for programmes relevant to LDCs is based on each preference-giving country's classification in 2008.

§ Average tariffs include out-quota tariffs on tariff quota products even if quotas are not filled. In the case of non ad valorem tariffs, estimated ad valorem equivalents (AVE) are taken into account in average tariffs. However, there are some tariff lines (less than 2% of all tariff lines) where AVEs are not estimated. If this is the case, calculations are made as follows: 1) if duties are mixed, such as '9% + agricultural component MAX 24.2% + additional duty on sugar', a partial ad valorem tariff of 9% was taken; or 2) tariff line is excluded from calculations.

*** Australia's GSP scheme for developing countries refers to Part 3 of Schedule 1.

xxx Canada refers to its GSP scheme as the General Preferential Tariff Treatment.

† Senegal and Eritrea are considered regular GSP beneficiaries, not GSP LDC beneficiaries.In the case of EU LDCs under the EBA programme, liberalization under the EBA scheme was immediate except for three products (fresh bananas, rice and sugar), for which tariffs gradually were reduced to zero (in 2006 for bananas and in 2009 for rice and sugar).

eligibility for such programmes. Concerning product coverage, preference-giving countries offer duty- and quota-free access for almost all products, with some exceptions.[36]

Table 14 provides a simple overview of available preference programmes relevant to eligible LDCs operated by selected preference-giving countries. Average applied duties – calculated assuming that a beneficiary country utilizes available preference programmes for all products – differ according to which preference programme is applied. The numbers presented are simple unweighted averages of duties applied in 2008/2009. For example, the average duty on total goods from countries that do not receive preferences in Canada (i.e., MFN countries) is 6.7%. GSP LDC and GSP non-LDC beneficiaries face tariffs of 2.7% and 5.7%, respectively, assuming that they utilize available preferential tariff rates. The impact of the GSP on LDCs is more substantial, reducing the average tariff by 4% (from 6.7% to 2.7%). However, since Canada provides preferential tariff treatment to certain Caribbean countries, these beneficiary countries also face 2.7% tariffs; this means that LDCs are not in a more advantageous position than the non-LDC Caribbean group.

As with country and product coverage, RoOs differ from one scheme to another. RoOs are used to ensure that preferences are granted only to exporters from eligible countries and they form a key element in determining the extent to which countries are able to take advantage of preferences available to them.[37] Some products, particularly inputs for final manufacture, attract complex RoOs, such as a change in tariff heading, a method for measuring the value added in the developing country, or specific manufacturing process criteria.[38]

Table 15: LDC exports to Australia, Canada, EU, United States ($ millions) in 2008

Total exports	Australia		Canada		EU§		United States	
	Value	Share %*	Value	Share %*	Value	Share %*	Value	Share %*
a. Total value of exports	198	100	3 812	100	36 135	100	33 210	100
b. Exports duty free	73	37	2 899	76	22 553	62	1 869	6
c. Exports for which preferences claimed	107	54	808	21	10 822	30	24 491	74
d. Exports eligible, but preferences not claimed	18	9	105	3	2 759	8	860	3
e. Exports not eligible for preferences	0	0	0×	0	1	0	5 990	18
Exports excluding oil	**Australia**		**Canada**		**EU**		**United States**	
	Value	Share %*	Value	Share %*	Value	Share %*	Value	Share %*
a. Total value of exports	198	100	1 123	100	19 560	100	9 791	100
b. Exports duty free	73	37	210	19	5 978	31	1 869	19
c. Exports for which preferences claimed	107	54	808	72	10 822	55	1 653	17
d. Exports eligible, but preferences not claimed	18	9	105	9	2 759	14	279	3
e. Exports not eligible for preferences	0	0	0×	0	1	0	5 990	61

Source: Australia Statistics Office, Canada Statistics Office, USITC website (www.usitc.gov), and Eurostat.

Note: Exchange rates used for $ conversion, based on an average for 2008, are the following: A$= $0.853; Can$= $0.9441, 1 euro = $1.471.

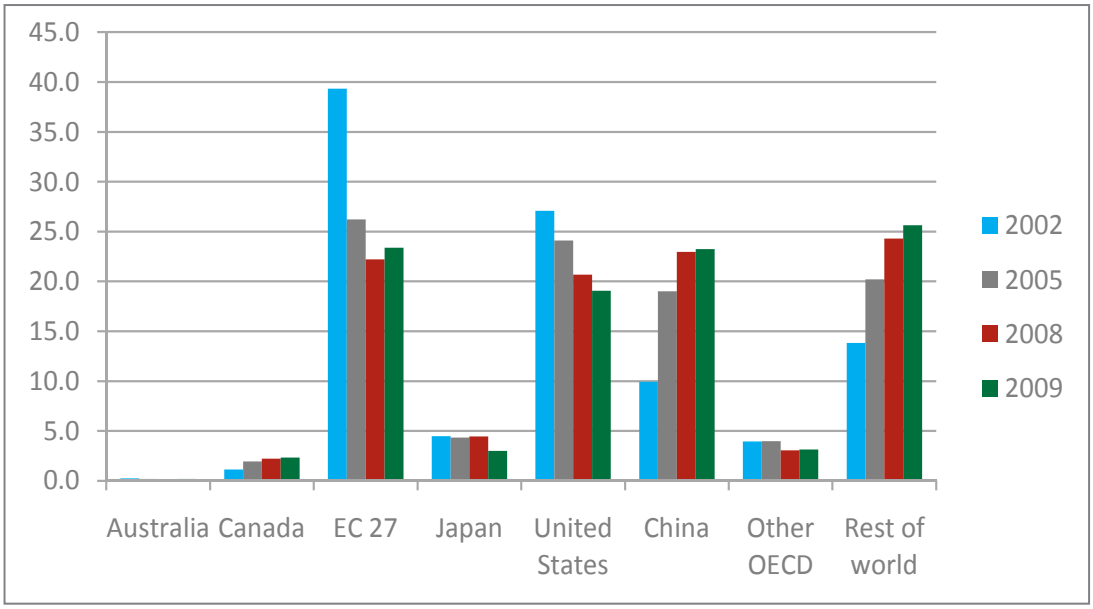
* Shares of exports for each category of total exports.

× Canada's exports not eligible for preferences: Value of exports was less than $3 000.

‡ LDC exports are based on partners' data (i.e., mirror statistics). Total amounts of LDC exports for each market are sums of all products (HS01-HS97) at HS 8-digit level. However, in the case of the United States and EU, due to detailed data available from USITC Dataweb and Eurostat database, the total amounts of United States and EU imports are the sum of all tariff lines at HS 8-digit level; excluding tariff lines subjected to specific conditions (e.g., in the case of the United States, articles entering the United States Virgin Islands, articles imported by the United States Government, and articles imported for the handicapped, and in the case of the EU, suspension and drawback systems).

§ In the case of the EU dataset, which is slightly different from others used, there are five different import categories: Imports entering under MFN with zero rates, imports entering under MFN with non-zero rates, preferential 'any preference non zero (i.e., partial tariff reduction under the scheme)', 'any preference zero (i.e., full tariff reduction', and imports whose status is unknown. In our calculations, the 'unknown' category will be treated as 'not' receiving preferences.

Figure 19: Share of LDC exports 2002–2009 (%)



Source: Comtrade.

THE IMPORTANCE OF PREFERENCES TOWARDS LDCS IN SELECTED COUNTRIES

The EU and United States are the most important markets for LDC exports among the selected preference-giving countries. In 2008, more than half of LDC exports were destined for the OECD countries covered by this study, despite the increasing importance of emerging markets such as China. China was the largest single market for LDC exports during 2008, accounting for 23%, with the EU at 22% (**figure 19**). In 2009 the EU imported 23.4%, just above China at 23.2%. However, the EU was the largest importing market for non-oil exports from LDCs, representing 33% of the total. China's share of imports of non-oil products from LDCs has increased steadily over the past decade, reaching 10% of the total in 2009.

THE AMOUNTS OF TRADE AFFECTED

Table 15 shows the amount of trade in 2008 that entered the four markets with different tariff treatments. It should be noted that LDC exports are highly concentrated in oil to Canada, the EU and the United States . Most LDC exports are already subject to MFN duty-free rates, as seen in the second row (b. Exports duty free); 76% of exports to Canada and 62% to the EU. On the other hand, the United States takes only a small portion of LDC exports under MFN duty-free entry – just 6%.

The third row (c. Exports for which preferences claimed) shows that LDC exports to the United States under preference programmes amounted to $24 billion, much more than with other partners. However, excluding oil brings the total of preference-eligible LDC exports to the United States down to only $1.6 billion. By comparison, the values of utilized preferences in Canada and the EU were unchanged when excluding oil. Canada and the EU impose the MFN duty-free rate on crude oil, while the United States imposes non-tariff ad valorem on crude petroleum. Thus, excluding crude petroleum exports, it can be seen that the EU accounts for the largest amount of LDC exports receiving preferential tariff rates.

The fourth row (d. Exports eligible, but preferences not claimed) illustrates where LDCs did not claim preferences even though their products were eligible. LDC exports eligible for preferences but not claimed were largest in the EU market, totalling about $2.7 billion, or 7% of total imports.[39] Those products for which preferences were not claimed were mainly textile and apparels.

Most exports from LDCs are subject to either MFN duty-free rate or preferential tariff rates in the Canadian and EU markets, but not in the United States market, as seen in the fifth row (e). The reason for this is that not all LDCs receive the same degree of preferences in preference-giving countries. In the case of the United States market, nearly $6 billion worth of products were not eligible for any preferences at all, accounting for 61% of total non-oil LDC exports. The number of liberalized tariff lines is more beneficial to African AGOA countries, especially for apparel, than countries in the Asian GSP LDC group, such as Bangladesh, Cambodia and Nepal. These Asian countries heavily concentrate their exports in apparel, accounting for more than 90% of exports to the United States market, although the United States

does not provide preferential rates to apparel products from non-AGOA or non-CBI countries.

TRADE COVERED BY PREFERENCES

Studies by the World Bank indicate that exports from many developing countries are often subject to different degrees of preferences in preference-giving countries. **Table 16** shows the share of exports that were covered by preference programmes relevant to each exporting country. Variations across the four markets may be the result of the following factors:

1. Preferences are available for a product in one market but not in other markets, where the MFN rate is already zero.

2. Sensitive products are excluded from preference programmes applied by preference-giving countries. For instance, consistent preferential tariff rates are applied to apparel from LDC beneficiaries by Australia, Canada and the EU, while different preferential rates apply to various United States LDC beneficiaries. For Cambodia, nearly 100% of exports are eligible for preferences in Australian, Canadian and EU markets, but less than 1% in the United States market, where exports of apparel from Asian LDCs are not eligible for preferential tariff treatments under the GSP programme.

3. Although almost all products are eligible for preferences in preference-giving countries, different compliance requirements such as RoOs may affect exports levels. For example, Lesotho's eligible exports vary across the four markets: Australian, Canadian and United States shares of exports eligible are nearly 100%, but the EU share is less than 1.5%.

The Statistical Annex also provides information on weighted tariff margins for eligible exports, assuming that available preferential tariffs are fully utilized. This shows the importance of exports eligible for preferences by weighted tariff margins. For instance, more than 90% of Angola's and Benin's exports to the United States are eligible for preferences, but their weighted tariff margins from utilizing preferences is minimal, at 0.2% and 0.1%, respectively.

Utilization of preferences depends on the magnitude of those preferences and the extent to which they are actually taken up: the utilization rate is also influenced by the margin of preference as well as the rules governing access.

The average rate of utilization for LDC countries in 2008 – defined as the share of exports with preferences claimed relative to the amount of exports eligible for preferences – varied between beneficiaries and preference-giving markets. The average rate of preference utilization in the United States market was 97%, followed by Canada's at 89%, Australia's at 86% and the EU at 80%.

Utilization rates of individual LDCs in the four markets illustrate a high degree of variation in the utilization of preferences by individual beneficiaries of a given trade preference scheme. With the United States, there are 17 LDC beneficiaries with rates of preference utilization above 80%, eight between 79% and 50%, and 17 below 49%.[40] Similar patterns are seen in the Australian, Canadian and EU markets. Some LDCs show high utilization with one partner but low utilization with others; for instance, Malawi's utilization rates under the EU and United States programmes are 81% and 93%, while its rates in the Australian and Canadian markets are 28% and 46%.[41]

TARIFF PAYMENTS SAVED ON LEAST DEVELOPED COUNTRY EXPORTS

The key question regarding preference programmes is: how much do eligible countries benefit from lower duties on their exports through such programmes? We have calculated the value of trade preferences to exporting countries using the amount of exports actually receiving preferences and the margin of preference to derive the tariff revenue that would have been paid without preferences (or avoided tariff payment) (Brenton, 2004).[42]

The results show that for most countries, preferences have a negligible impact under the current structure of LDC exports. For instance, in the case of the United States market, it shows that many of the countries are below overall preference utilization rates and weighted tariff margins: of 8 countries with more than 97% preference utilization, only four benefited from weighted tariff margins of more than 16%. This also illustrates the size of exports for each country by five categories. Malawi highly benefits from available United States preferential programmes, demonstrating the highest preferential tariff margins with high preference utilization, but in terms of export value, the country's export size is smaller than other beneficiaries with low preferential tariff margin.

At the product level, focusing on countries classified in the group with a weighted tariff margin of more than 5%, the greatest duty payment avoided on duties are concentrated in textiles and clothing (**table 16**). Four countries exporting to the Canadian market exclusively benefited from preferences in these sectors; a similar pattern is seen in Australia (except for Samoa) and the United States markets (except for Malawi). On the EU market, the range of products benefiting from preference programmes included not only textiles and clothing but also other sectors such as fishery and tobacco products. Annex II.3 illustrates a combination of utilization rates of each beneficiary country and weighted tariff margins in each preference-giving market.

Table 16 gives an estimate of payments avoided in 2008 as a proportion of total exports to the four markets covered and classifies beneficiary countries by their distribution of weighted tariff margins in these four markets. It shows that

Table 16: Distribution of weighted tariff margins (%)

	Overall LDC (%)	Number of beneficiary countries according to weighted tariff margins§			
		<1%	1-5%	5-10%	>10%
Australia	6.7	33	8	2 countries: Samoa (Electrical machinery) Myanmar (textile & clothing)	3 countries: Bangladesh (textile & clothing) Cambodia (textile & clothing) Lesotho (textile & clothing)
Canada	3.7	40	2	2 countries: Madagascar (textile & clothing) Nepal (textile & clothing)	4 countries: Bangladesh (textile & clothing) Cambodia (textile & clothing) Lao People's Democratic Republic (textile & clothing) Lesotho (textile & clothing)
EU	3.4	21	15	10 countries: Bangladesh (textile & clothing) Cambodia (textile & clothing) Lao People's Democratic Republic (textile & clothing) Nepal (textile & clothing) Yemen (fish products) Senegal (fish products) United Republic of Tanzania (fish products) Mozambique (sugar, metals) Benin (sugar) Vanuatu (Oilseeds, fats and oils)	4 countries: Cape Verde (fish products, textile & clothing) Malawi (tobacco, sugar) Maldives (fish products) Madagascar (textile & clothing, fish products)
United States	0.8	33	8	0 country	4 countries: Malawi (sugar, tobacco, textile & clothing) Lesotho (textile & clothing) Madagascar (textile & clothing) Haiti (textile & clothing)

Source: Australia Statistics Office, Canada Statistics Office, USITC website (www.usitc.gov), and Eurostat. ITC calculations. The classification of countries in the table is that pertaining in 2008 to allow for a match with the available trade data. § Australia – 46 countries (excluding 4 non-exported countries); Canada – 48 countries (excluding one non-traded country and one non-beneficiary country); EU – 50 countries; United States – 45 countries (excluding four non-beneficiaries and one non-exporting country).

weighted average tariff margins under available preference programmes amount to a range of less than 1% to 6.7% in the four markets. The smallest amount of duty payments avoided is in the United States, amounting to just 0.8% of total imports from LDCs, while in the other three markets the proportion is above 3.4%. While preference programmes are very important to certain countries, such as Bangladesh, Cambodia and Lesotho, in a majority of countries the weighted tariff margins did not exceed 1% in each market.

When observing cases of non-LDC non-reciprocal preference programmes (e.g., GSP, CBI, AGOA) in the four markets, the weighted average preferential margin for beneficiaries is much smaller than for the LDC group, rarely reaching a 1% reduction over MFN rates (0.1% for Australia, 0.5% for Canada, 0.5% for the EU, and 0.6% for the United States). Possible reasons are the varying composition of non-LDC beneficiary exports from LDC exports, sector exclusion from available preferential programmes, or lower margins of preference. Annex II.3 illustrates a combination of utilization rates of each beneficiary country and weighted tariff margins in each preference-giving market.

The table presents the absolute value of tariff payments avoided through available preference programmes. It shows that in three of the four importing markets, Asian countries such Bangladesh and Cambodia benefited greatly from the programmes. In the Canadian market, Bangladesh and Cambodia are in fact the primary beneficiaries of the programmes, accounting for 96% of the total estimated avoided payments. These countries mainly benefited from high tariff margins for apparel products. In the EU, the largest portion of total estimated value of preferences claimed is again by Bangladesh (59%) followed by Cambodia (7%). However, the United States market presents a different picture. No Asian countries appear on

the list; instead African countries and Haiti are among the major beneficiaries. The top three countries, Haiti, Lesotho, and Madagascar, were exempted from the full amount of import taxes for apparel products as a result of existing preference programmes, AGOA and CBI, which are exclusively available to African and Caribbean countries. Angolan exports were mainly crude oil, which face non-ad valorem tariffs under the MFN regime but enjoy duty-free access under either GSP or AGOA programmes, as discussed previously.

The overall value of preferences for the LDCs, that is, import duties avoided, amounted to $1.6 billion, representing 2.3% of total exports. At the same time, it is estimated that approximately $1.4 billion in duties were paid on LDC exports despite the preference schemes.[43] Across the four importers, the largest amount of duties was paid on Bangladeshi exports, accounting for approximately 55% of total duties paid on LDC goods, despite the fact that overall Bangladeshi exports benefited significantly from preference programmes in three of the four markets (Australia, Canada and the EU). See **table 17** below.

In conclusion, it may be observed that the importance of preference programmes varies greatly between beneficiary LDCs but the actual benefits from the programmes are significant only for a limited group of countries under the current LDC export structure. This is mainly the result of small tariff margins or an existing MFN duty-free rate, exclusion of some sectors from preferences and burdensome administrative requirements. Although the impact on LDC exports of current schemes is shown to be small, removal of remaining duties and quotas, and less restrictive compliance requirements, such as RoOs, could produce more effective preference programmes. While preference programmes could possibly be made more effective, they should not be considered a substitute for comprehensive export development programmes and effective trade related technical assistance.

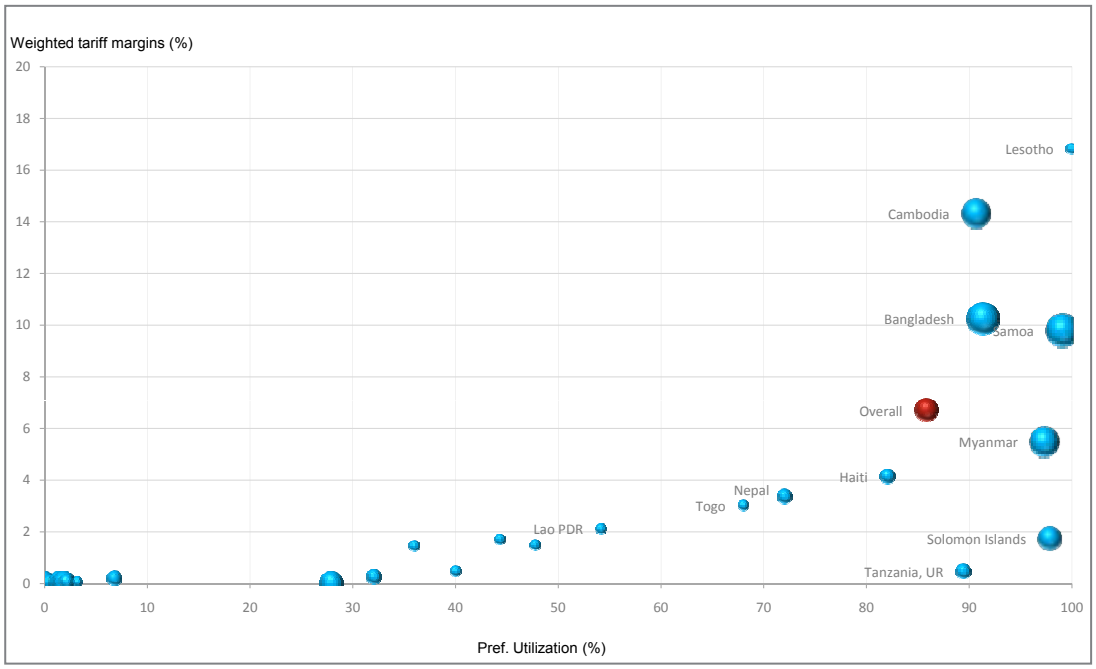
Table 17 Estimated tariff payments ($ millions)

	Estimated duty payments without preferences $ millions	Estimated duty payments with actual preferences $ millions	Tariff payments avoided	Tariff payments avoided' share of total exports (%)	The largest duties paid on exports (% of total duties paid)
Australia	15	2	13	6.7	Bangladesh (32%)
Canada	158	17	141	3.7	Bangladesh (44%)
EU	1 650	416	1 235	3.4	Bangladesh (49%)
United States	1 255	991	264	0.8	Bangladesh (58%)
Total	**3 078**	**1 426**	**1 652**	**2.2**	**Bangladesh (55%)**

Note: Exchange rates to be used for $ conversion (average 2008) are the following: A$ = $0.853; Can$ = $0.9441; 1 euro = $1.471.

UTILIZATION RATES VS WEIGHTED TARIFF MARGINS

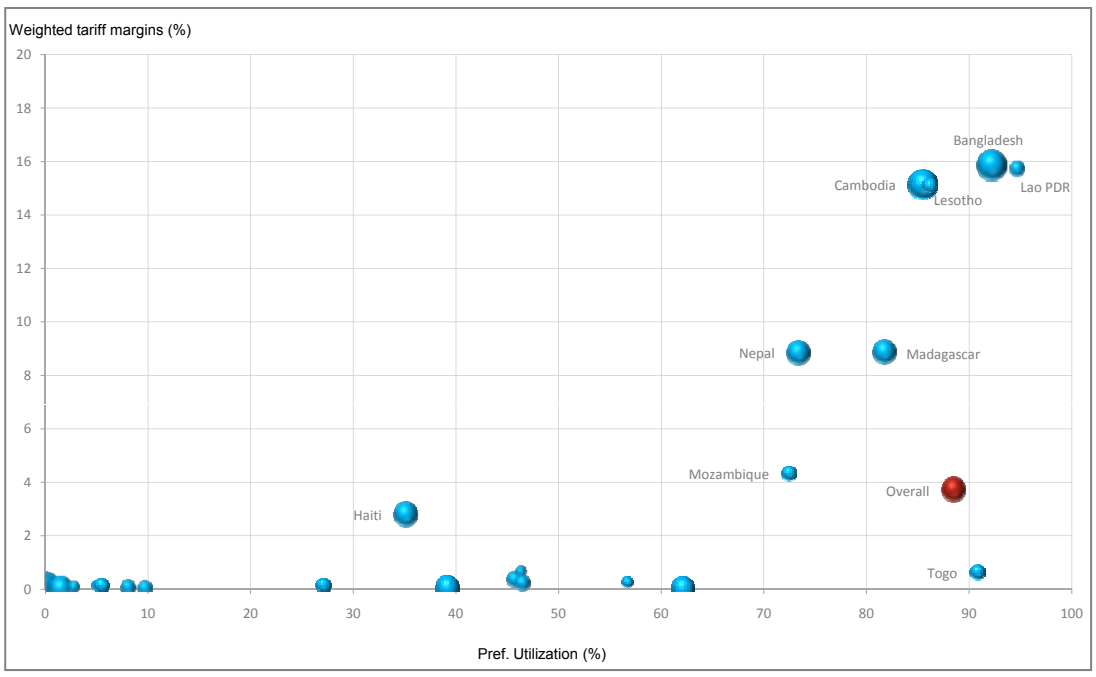
Figure 20: Utilization rates of Australian preferences vs weighted tariff margins



Source: ITC calculations.

Note: Bubble size reflects the export value, consisting of 5 groups: More than $50 million (2 countries), $10-$50 million (2 countries), $5-$10 million (6 countries), $1-$5 million (9 countries), and less than $1 million (27 countries).

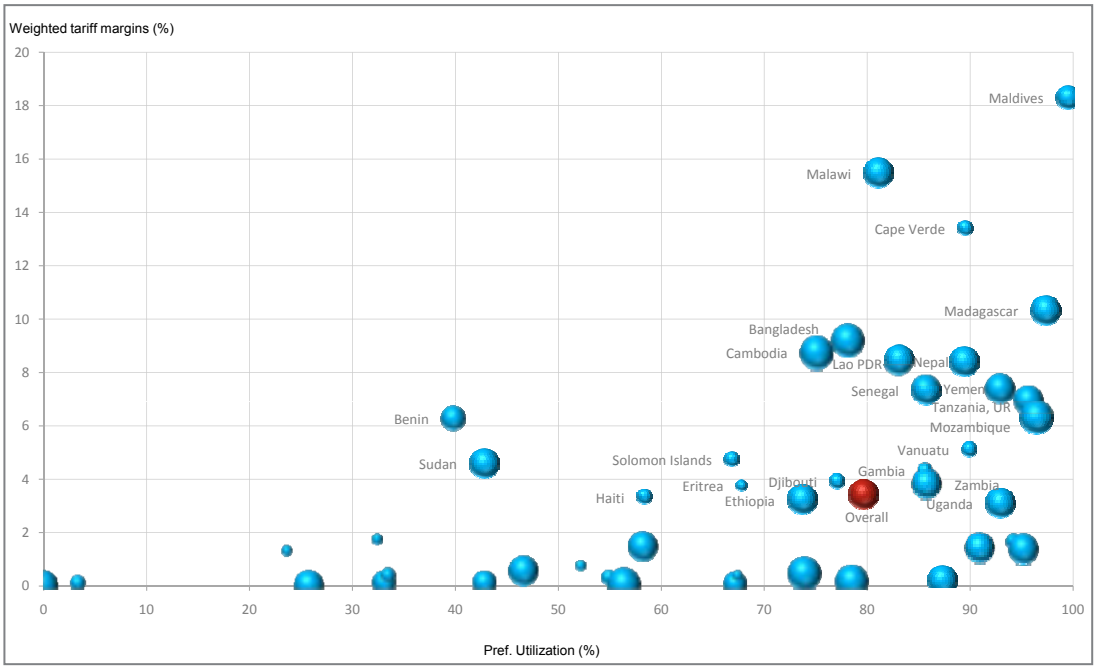
Figure 21: Utilization rates of Canadian preferences vs weighted tariff margins



Source: ITC calculations.

Note: Bubble size reflects the export value, consisting of 5 groups: More than $1 billion (1 country), $100 million–$1 billion (2 countries), $10-$100 million (8 countries), $1-$10 million (11 countries), and less than $1 million – 26 countries.

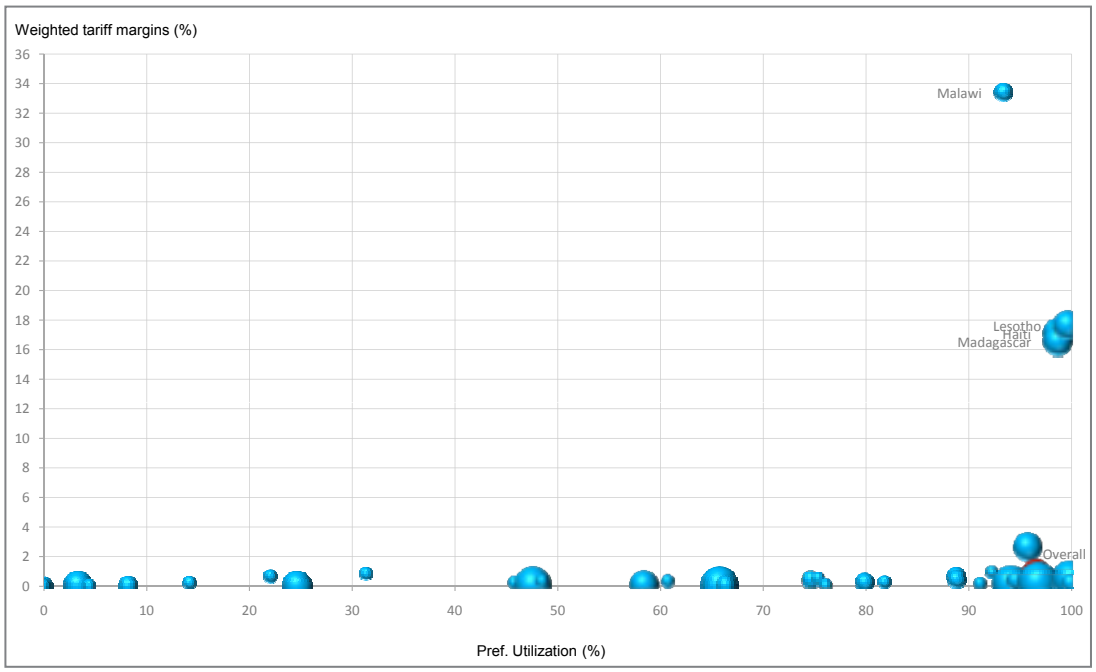
Figure 22: Utilization rates of EU 27 preferences vs weighted tariff margins



Source: ITC calculations.

Note: Bubble size reflects the export value, consisting of 5 groups: More than $1 billion (6 countries), $100 million-$1 billion (19 countries), $50-$100 million (6 countries), $10-$50 million (10 countries), and less than $10 million – 9 countries

Figure 23: Utilization rates of United States preferences vs weighted tariff margins



Source: ITC and Karshenas 2010a.

Note: Bubble size reflects the export value, consisting of 5 groups: More than $10 billion (1 country), $1-$10 billion (4 countries), $100 million-$1 billion (7 countries), $10-$100 million – (12 countries), and less than $10 million – (21 countries).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CHAPTER III

EXPORT DEVELOPMENT AND POVERTY REDUCTION

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EXPORT DEVELOPMENT AND POVERTY REDUCTION

This chapter examines the relationship between export development and poverty reduction in developing countries. It spells out implications for both developing country policies as well as international measures to improve markets.

EXPORTS, GROWTH AND POVERTY REDUCTION

Research into globalization and poverty has grown in recent years. But a link between trade and poverty remains to be proven in important aspects. This chapter puts forward a set of propositions on the relationships between trade, growth and poverty reduction, to be substantiated by empirical evidence.

THREE PROPOSITIONS AND A CONCLUSION

Our first proposition is that sustained growth of exports is a necessary condition for long-term economic growth in developing economies. A corollary to this proposition is that in the process of catching up with developed economies, low-income countries would need to increase their share of world trade on a sustainable basis. The sustainability of growth in their trade share in turn necessitates the growth of exports at an adequate rate as well as an adequate upgrade of the composition of exports along the value chain and in accordance with the evolving comparative advantages of the countries concerned.

The second proposition is that under certain conditions, which are prevalent in the poorest countries, economic growth is a necessary condition for a sustained reduction of absolute poverty, particularly on a scale envisaged by the MDGs. Furthermore, observed worsening of income distribution, though significant in many cases, has not reversed the poverty-reducing effect of growth over the long term. High rates of growth are essential to reduce poverty in these countries due to the depth of poverty and low income-levels. For such countries, exports are particularly important in providing both the initial stimulus for growth as well as the conditions for long-term sustainability of growth.

The third proposition is that nevertheless, specific measures directed to the poor are increasingly important in the countries where most people living in absolute poverty can be found, that is in the relatively more advanced developing countries and emerging markets. Uncertainties resulting from these countries' variations in income distribution make the impact of trade growth on poverty less direct. Trade and growth continue to play an important role in poverty reduction in these countries. However, monitoring income distribution and implementing specific measures directed to the poor become increasingly important as these countries move towards a situation where addressing relative poverty also becomes relevant, in addition to reducing the number of people below the poverty line.

These three propositions lead to a final conclusion regarding international trade policy: measures that inhibit the access of poor-country exporters to international markets will jeopardize the sustainability of growth in these countries, or at least increase the cost of growth in terms of current consumption foregone – and hence will be poverty-increasing.

This chapter starts with a summary review of the existing literature on trade and poverty and explores the trends revealed by cross-country data on the relationship between exports and poverty. In the subsequent section on Poverty, growth and income distribution linkages, we investigate the conditions under which economic growth can have a statistically robust effect on poverty reduction. It is demonstrated that these conditions hold for a large number of low-income countries under the conventional definitions of global poverty. We later discuss the role of exports in economic growth in low-income countries, focusing particularly on the role of exports to help countries escape the condition of extreme poverty (Exports and escape from mass poverty). The chapter closes with a review of the impact of industrial-nation imports for developing countries using the Poverty Intensity of Imports indicator. It is demonstrated that market access, discussed in the previous chapters, is an important contributing factor in inhibiting a large number of countries on the lowest ranks of poverty

ladder from climbing out of extreme poverty. The Implications for policy section looks at national and international measures to improve the situation for the poorest people in poor countries.

EXPORTS AND POVERTY

This section applies a new methodology to obtain more accurate estimates of poverty distribution and puts the focus on exports.

The impact of globalization on poverty over the past few decades has been the subject of a fast-growing literature that has not been free from controversy. [44] In particular the impact of greater trade openness on poverty has given rise to heated debate. Some believe that greater integration in world trade has been detrimental to the poor in developing countries, while others contend that considerable reductions in global poverty have been made possible by greater participation by developing countries in world markets. Using cross-country data on trade and poverty, individual authors have reached differing conclusions. For example, Dollar and Kraay (2002, 2004) maintain that cross-country evidence indicates that increased trade has strongly encouraged growth and poverty reduction, while Ravallion (2005) argues that the cross-country evidence on trade and poverty is at best inconclusive. As Ravallion points out, however, there are continued problems surrounding the data and econometrics specifications in this literature, which have prevented a conclusive synthesis of the findings.[45]

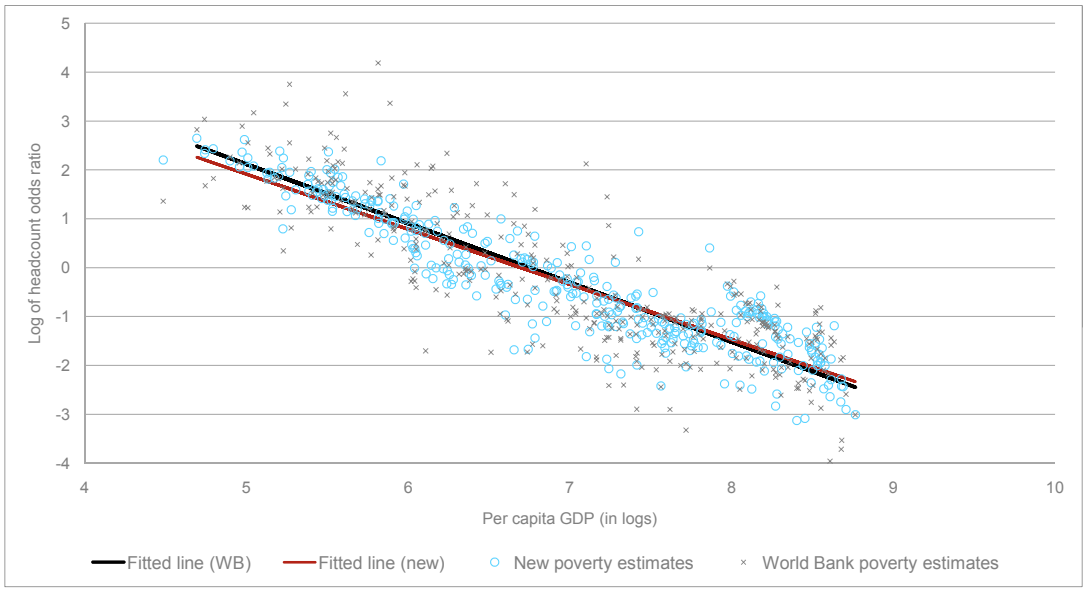
AMENDING WORLD BANK POVERTY DATASETS

This report provides a fresh look at the relationship between trade and poverty reduction by using a new dataset that helps better understand the time series aspects of the relationships. Cross-country comparisons of poverty require data that are comparable across countries and over time. Measures of absolute poverty based on 'dollar a day' poverty lines by the World Bank are designed to serve such a purpose by applying the same poverty line in terms of purchasing power in different countries.

This report applies an amended version of the World Bank poverty measure. It uses the same global poverty lines of $1.25 and $2 a day as the World Bank, but combines the information from the surveys with those of national accounts in order to reduce the 'noise' in poverty estimates. This is done by calibrating average consumption based on household surveys using national accounts per capita consumption as calibrating variables.[46] A further advantage of the new estimates is that they provide time-series information on poverty that can provide a better and more coherent picture of the relationship between poverty and national accounts-based variables such as exports, GDP growth, etc.

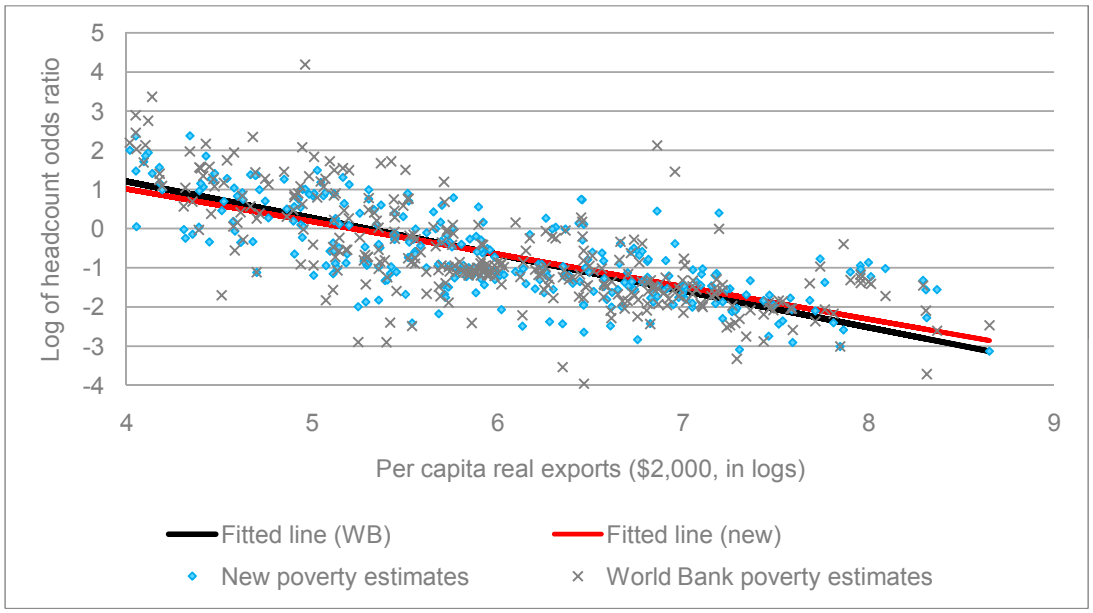
Concern has been expressed as to the use of national accounts data in reducing the noise in survey-based estimates of poverty due to the fact that mimicking the movement of national accounts averages such measures of poverty and presupposes what needs to be examined in relation to the links between growth and poverty reduction (see, e.g., Deaton, 2010). This would have been the case if the new measures had been based on some kind of averaging between survey and national-accounts means. The calibration method used in the new estimates, however, avoids this pitfall by assuming that the surveys are on average correct and the measurement errors or the noise in survey-means affect individual country estimates. Figure 24 compares the World Bank estimates of headcount poverty and the new estimates used in this report for the 89 sample countries and in years for which data are available. In order to attain a linear relationship and reduce variance instability the figure plots the logarithm of the odds of being poor in a country in the survey year [ln(h/(1-h)) where h is the headcount poverty] against (log) of per capita GDP. As can be seen, the fitted lines between the two series are virtually indistinguishable, with the new estimates in fact exhibiting a relatively flatter slope. The slope of the fitted line in the case of the new estimates is-1.12 (-44.5 t-ratio), and for the World Bank measures it is 1.21 (-35.7 t-ratio). The relationships

Figure 24: Headcount poverty and per capita GDP ($2/day poverty line)



Source: ITC and Karshenas 2010a.

Figure 25: Headcount poverty and per capita real exports ($2/day poverty line)



Source: ITC and Karshenas 2010a.

depicted in figure 24 indicate the headcount ratio for the $2 a day poverty line. Similar patterns emerge in the case of other measures such as poverty gap and other indicators such as the $1.25 a day poverty line.

It may be noted that while the new poverty estimates are different from the World Bank's survey-based estimates for individual countries, in the case of overall averages and relationships between the poverty estimates and national accounts variables, the two are not dissimilar. Importantly, the new estimates, unlike other national accounts-based poverty measures, do not overstate the impact of globalization on poverty reduction.[47] Another important advantage of the new estimates, in addition to reducing the effect of measurement errors or noise in survey averages, is that it allows the estimation of fairly precise time-series measures of poverty on the basis of projections of calibrated survey means (see Karshenas 2010a for more details).

Knowing that the time series estimates on average mimic the existing survey-based poverty measures and in particular do not exaggerate the impact of globalization on poverty reduction is important. In the rest of this chapter, nevertheless, wherever possible the results will be compared with those that would have been attained using the World Bank poverty estimates.

INNOVATIVE FOCUS ON EXPORTS

Another innovation of the analysis undertaken for this report is that the focus here is on exports and poverty reduction rather than trade in general. In many aid-dependent and highly indebted poor countries, exports are better indicators of the integration of production structures of these economies in world trade. As will be discussed in more detail later, the direct impact of exports on poverty can be additional to their poverty-reducing effect, depending on the type of exports, via their overall growth-enhancing impact. The evidence at aggregate level lends definite support to the proposition that exports play a special role in poverty reduction (see figure 26). The graph indicates that poverty ratios decline when per capita real exports increase.

These results are not unexpected, of course, as one would expect richer countries to have higher per capita exports, but it may appear remarkable that even after adding the per capita GDP variable the coefficient of exports remains significant. These results hold for the $1.25 a day poverty line as well. A major problem with these results is that they are based on pooled data of a highly unbalanced panel, and hence statistics from countries with a large time-series component such as China, India and Brazil can bias the results. Furthermore, unobserved heterogeneity across countries can be a cause of more serious bias. Time-series data on poverty provided by the new estimates can help alleviate some of these problems.

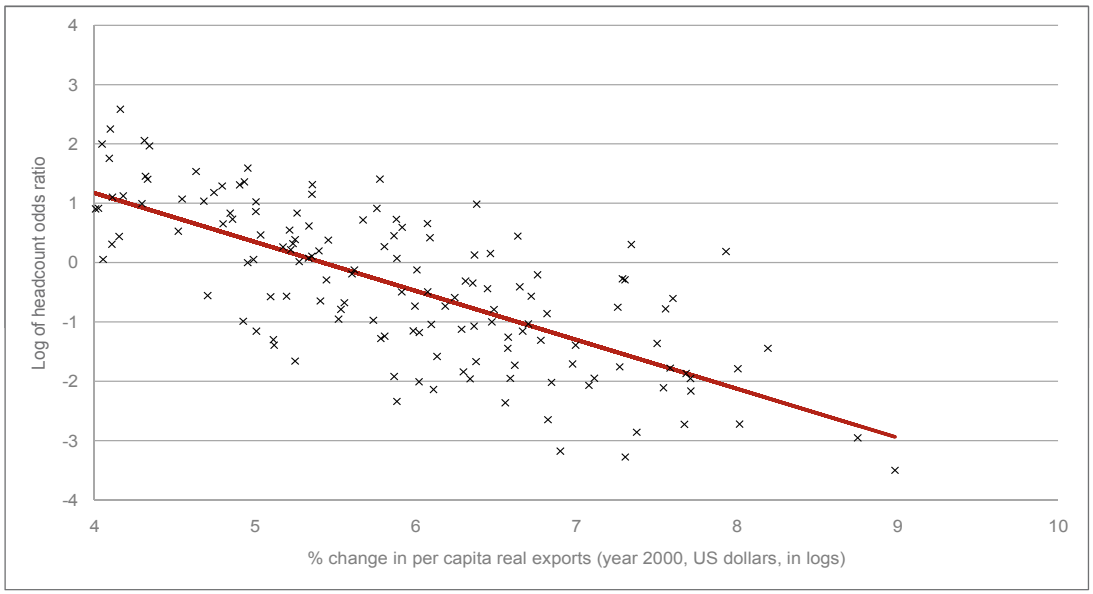
Figure 27 shows the relationship between poverty and exports with the same set of poverty data as in figure 24. As with per capita GDP, the fitted lines show similar relationships between exports and poverty levels for the two sets of poverty estimates (the slope for the new poverty data is -0.831, with t-ratio of -28.8 and for the World Bank data -0.93 with -26.4 t-ratio).

POVERTY, GROWTH AND INCOME DISTRIBUTION LINKAGES

Growth appears to be all that matters once the focus of analysis is absolute mass poverty. When one moves from the condition of generalized or mass poverty, income distribution is of increasing significance. This dichotomy may explain the persistence of contrasting views on globalization, growth and poverty. Potential gains to the poor from growth can be easily reversed by changes in income distribution, particularly in countries with sluggish growth rates.

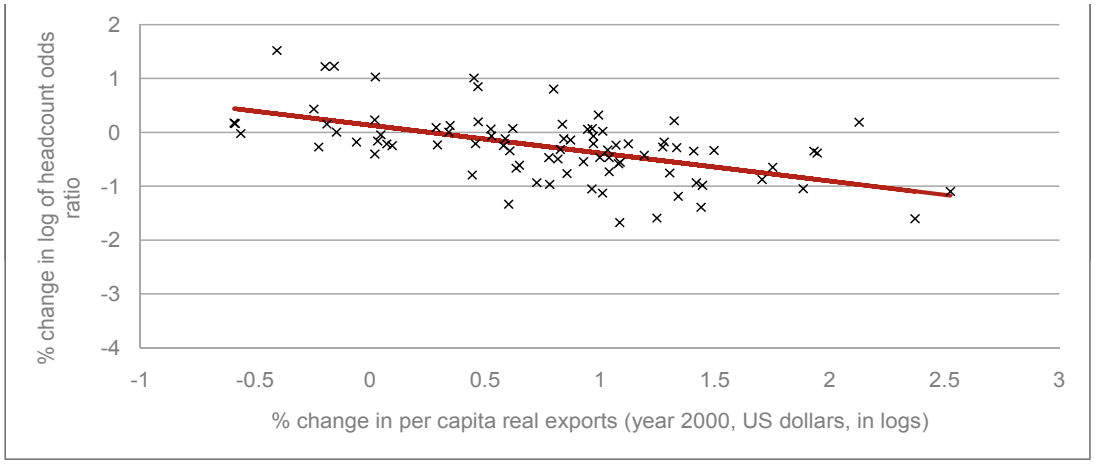
This section identifies the incidence of poverty across countries and shows that in countries with a high head-count poverty ratio, the reduction in poverty is largely determined by

Figure 26: Headcount poverty and per capita real exports – first difference model 1990–2005 ($2/day poverty line)



Source: ITC and Karshenas 2010a.

Figure 27: Headcount poverty and per capita real exports – pooled data 1990 and 2005 ($2/day poverty line)



Source: ITC and Karshenas 2010a.

changes in income and little by changes in income distribution. Once one leaves the realm of mass poverty the distributional element becomes increasingly significant, but under generalized or mass poverty much higher rates of economic growth over longer periods are necessary to make a sizable dent in poverty rates.

Poverty is multidimensional (in addition to low incomes, poverty can be related to access to health, education, sanitation and political power; social marginalization and environmental quality, etc.). The relationship between poverty and growth critically depends on the nature of the poverty under investigation and the particular dimension of poverty that is being measured. In this report the focus is on income poverty, and specifically the popular notions of absolute poverty measured in relation to the 'dollar a day' poverty lines introduced by the World Bank. An important aspect of the World Bank measures of absolute poverty lines is that these are constructed to be comparable across countries and over time and hence appropriate for cross-country comparisons of the type conducted here. Since comparability across countries and over time is essential for the discussion in this report, we continue to use our amended version of the World Bank poverty estimates corrected for idiosyncratic measurement errors in survey averages.

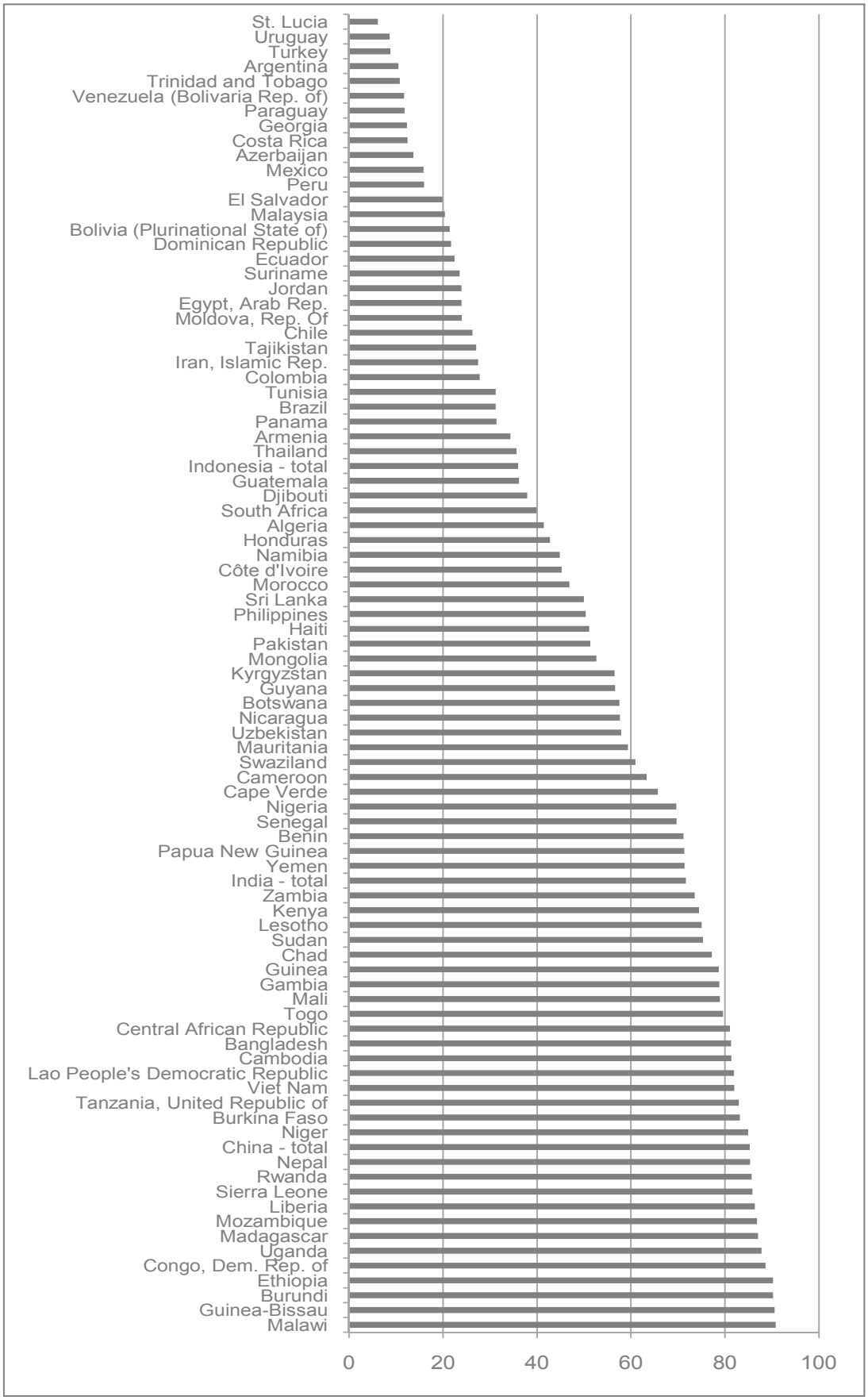
Once the global poverty line is set in absolute terms, one would expect to find a wide range of experiences of absolute poverty, given the wide ranges of per capita income observed across developing countries. Figure 28 provides a panoramic view of such differences in 1990 in relation to the $2 a day poverty line defined by the World Bank in 2005 purchasing power parity (PPP) exchange rates.

What stands out in figure 28 is that in 1990 in a large number of countries the majority of the population lived below $2 a day. In 40 countries, among them some of the most populous countries such as China and India, well over 60% of the population lived below the $2 a day line. Such countries are designated as countries that suffer from 'mass' or 'generalized' poverty. The term refers to the state of the countries concerned in the initial year of 1990. Since 1990 many of the countries depicted in figure 28 have taken great strides in moving out of the condition of mass poverty, but many others have been stuck in that state, referred to as a poverty trap. Yet others entered the poverty trap in later years. The phenomenon of mass poverty is a more common phenomenon than one might have expected. According to World Bank estimates, in 1990 close to 80% of the population in East Asia and the Pacific, close to 83% in South Asia and over 76% in sub-Saharan Africa lived on less than $2 a day.

China, India and Viet Nam are prominent examples of the first group in figure 28: starting from a situation of mass poverty in the early 1990s, they have rapidly exited that state. On the other hand most of the sub-Saharan African countries in the lower ranks of the figure have either witnessed increased poverty or relatively slow progress towards poverty reduction. The divergent experiences within the group of countries recording mass poverty are of paramount importance in understanding the problem of persistent extreme poverty at the global level. The comparison of the experience of this group of countries with those at less extreme levels of poverty, as defined by international poverty lines, can also be instructive.

The nature of poverty and the relationship between poverty, income distribution and growth in countries experiencing mass poverty are likely to be different from the normal cases where 20%-30% of the population or less lives in poverty. An analysis of the impact of income distribution on poverty

Figure 28: Percentage of population living on below $2/day (1990)



Source: ITC and Karshenas 2010a.

trends in countries at different levels of per capita income can help to shed light on some of these differences. Figure 29 shows examples of typical country experiences in relation to their poverty trends and the effect of changes in income distribution on poverty. For each country the main trends in poverty as measured by the share of population living on below $1.25 and $2 a day are shown, with two hypothetical maximal and minimal poverty trends in each case. The main trends are estimated on the basis of existing information on income distribution in the available household surveys. The maximal (or minimal) trends are estimated by assuming that for the whole period income distribution remains at its most unequal (or most equal) level attained during the period since 1990, while per capita average consumption follows the same trend as in the main estimates.

The first two panels in figure 29 depict the case of two of the poorest countries, Burundi and Uganda, suffering from mass poverty by the standards of both global poverty lines. Both these countries also seem to be caught in a poverty trap whereby their condition of mass poverty is perpetuated over time. We shall return to this aspect of poverty trends in this group of countries by more closely examining and classifying countries in relation to their poverty reduction performances. What needs to be highlighted at this stage is the nature of growth, income distribution and poverty interactions in this group of countries characterized by the minimal and maximal poverty paths that are virtually indistinguishable from the main poverty trends. In view of the fact that both countries show considerable changes in income inequality (Gini coefficient rising from about 33.3 to 42.4 in Burundi and varying between about 37.1 to 45.8 in Uganda), it is not surprising to find that in all countries with similar per-capita income levels, changes in headcount poverty under the $1.25 and $2 a day poverty lines are largely dominated by changes in mean income or consumption and little influenced by changes in income distribution. In fact this is true in the case of all LDC countries in relation to the $2 a day poverty line, and a third of African LDCs in the case of the $1.25 a day poverty line as well. When the poor constitute 70-80% of the population, it is natural for the observed distributional changes to be dominated by distributional changes within the poor.

Panels iii and iv in figure 29 show the intermediate cases of countries with mass poverty, Bangladesh and Thailand, where there is a robust relationship between headcount poverty and average income under the $2 a day poverty line, but distributional changes have started to exert a significant influence on poverty trends under the $1.25 a day poverty line. Given the relatively large changes in income inequality in both cases (in Uganda the Gini coefficient fluctuated between 37.1 and 45.8 and in Bangladesh it increased from 27.6 to 33.2), under more normal distributional changes one would expect still a relatively robust relationship between poverty and average income even for the lower poverty line in countries in this range of per capita income. Moving further up the income scale across developing countries the variations in poverty level become increasingly dominated by distributional changes.

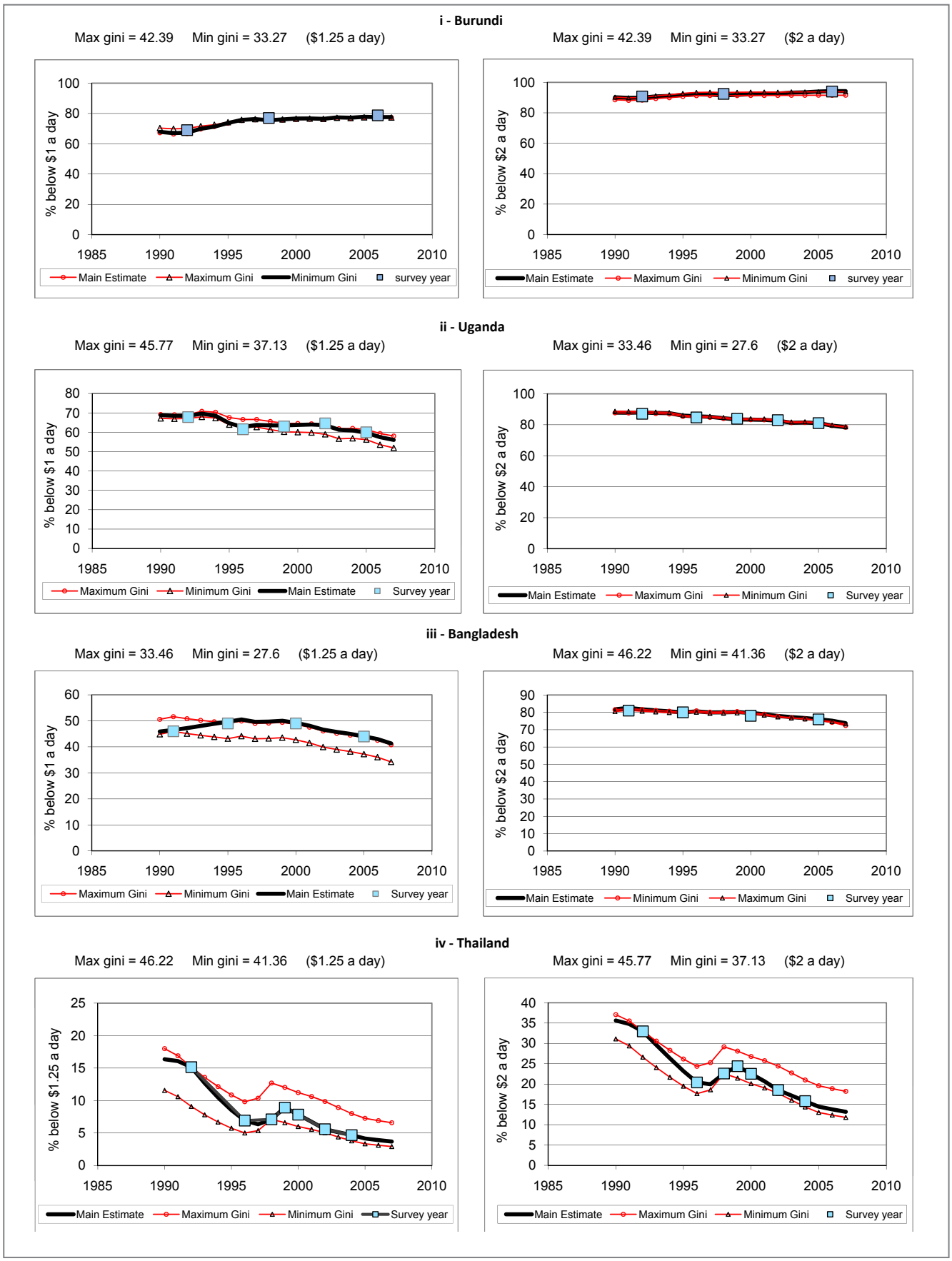
In the case of Thailand in Panel v of figure 29, despite the relatively smaller difference between the minimum and maximum gini as compared to for example Uganda, we observe a much more dominant influence of distributional factors in poverty change. The further away one moves from the condition of generalized or mass poverty to a situation where the absolute poor form a small share of the population, the more prominent appears to become the role of income distribution in variation in poverty rates. This will be particularly pronounced in countries with sluggish growth rates, where the gains from growth can be easily reversed by adverse changes in income distribution.

This phenomenon may appear a statistical truism, resulting from the choice of the poverty line, without any substantive implications. After all, if the poverty line is set high enough then everyone would be included amongst the poor and headcount poverty becomes only a simple matter of economic growth. There are however important substantive issues involved here that can also help explain the persistence of contrasting views amongst researchers as well as policymakers on issues related to globalization and growth. Some of these issues can be better understood if the same phenomenon is viewed with respect to what in the poverty literature is referred to as growth elasticity of poverty reduction, or what is sometimes briefly referred to as poverty elasticity. Poverty elasticity is defined as the percentage change in poverty resulting from a percentage change in income, and normally estimated in terms of growth of average survey consumption or income. However, given that in the debates on globalization and poverty, growth is normally measured in terms of national income concepts, it will be instructive to start with poverty elasticity measured in terms of growth of per capita GDP. As shown below, a comparison between the GDP-based and survey-based measures will also help dispel some of the misconceptions about growth and poverty reduction prevalent in some of the recent debates.

Using the panel data on poverty discussed in the previous section, poverty elasticities have been estimated in relation to growth of per capita GDP in 89 countries in the sample over the 1990-2005 period.[48] The period has been divided into three five-year intervals and the log difference in headcount poverty and per capita GDP in each period is used to estimate elasticities in a pooled dataset of 279 observations. Given the highly non-linear shape of the income distribution curve, elasticities will be non-linear functions of initial levels of per capita income or initial poverty. To capture this effect we have made elasticity a quadratic function of initial poverty.

Figure 30 shows the estimated elasticities against initial poverty level for the $2 a day poverty lines respectively. The figure also show the 95% confidence bands for each main elasticity estimate. Since the combination of income distribution and average income fully specify the magnitude of absolute poverty, the 95% confidence bands in figure 30 depict the effect of variations in income distribution on

Figure 29: Headcount poverty trends under different distribution assumptions in African and Asian LDCs (1990–2007)



Source: ITC and Karshenas 2010a.

poverty elasticity. The variation is found to be very similar if one uses the $1.25 a day poverty line.

The picture portrayed in terms of individual country examples in figure 30 can now be generalized with respect to all developing countries in the sample. For the countries with mass poverty – to the right on the head count poverty incidence scale – the narrow confidence band indicates that poverty elasticity is fully specified by the initial level of poverty, or the initial level of income. Growth appears to be all that matters if the focus of analysis is absolute mass poverty. On the other hand, once one leaves the realm of mass poverty, even though absolute poverty remains the main focus of analysis, the confidence band widens rapidly, indicating the distributional element taking increasing significance in the change in poverty.

This dichotomy may explain the persistence of contrasting views on globalization, growth and poverty. Those who are concerned with the eradication of generalized or mass poverty normally focus on the impact of growth in reducing poverty in the past few decades. On the other hand, once the focus changes to absolute poverty in higher income developing countries, uncertainties about distributional consequences of various policies become prominent.

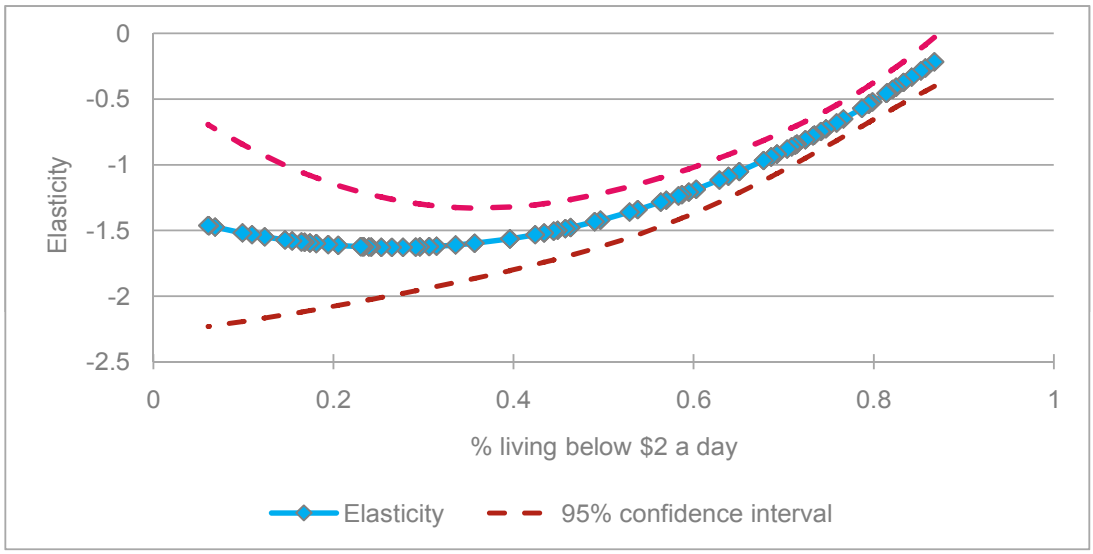
This point is unfortunately neglected in some recent literature on poverty analysis. Poverty is projected in a deterministic manner.[49] It is ironic that in such deterministic treatments, growth assumes an increasing significance at higher levels of income because the growth elasticity of poverty in richer countries is much higher compared to poorer countries. The point being made here is that such high elasticities, which are also observed by our analyses, pertain only to the average rates. As one moves beyond the generalized poverty realm they are no longer robust. Slight changes in income distribution, brought about by trade, technology or other exogenous shocks, can affect absolute poverty significantly even when per capita income growth is *not* affected. All this implies that beyond the income levels where mass poverty is prevalent, to ensure poverty reduction effects of growth, increasing attention needs to be paid to distributional aspects (even when absolute poverty is concerned).

Another aspect of the behaviour of poverty elasticity shown in and figure 30 is that as one moves towards the lower levels of per capita income, poverty elasticity also falls quite dramatically, despite the robust link between poverty and growth. In other words, under generalized or mass poverty much higher rates of economic growth over longer periods are necessary to make a sizable dent in poverty rates. This is an additional reason why foreign trade and finance are likely to play an important role in poverty reduction in countries suffering from generalized poverty.

WHY IS THE POVERTY ELASTICITY OF GDP GROWTH SO LOW?

The poverty elasticities measured in relation to GDP growth in figure 30 are much lower than estimates based on household survey average income or consumption growth rates. This is certainly true with regard to deterministic estimates based on lognormal distribution, but also in relation to econometric estimates based on actual growth periods in household income or consumption with average elasticity estimates of between -2 to -3%. On this basis, it has often been pointed out by commentators that the fall in absolute poverty in developing countries is not commensurate with economic growth at the global level, and this has sometimes been mentioned as evidence of worsening distribution of income during the era of globalization.

Figure 30: Growth elasticity of poverty reduction ($2.00/day poverty line)

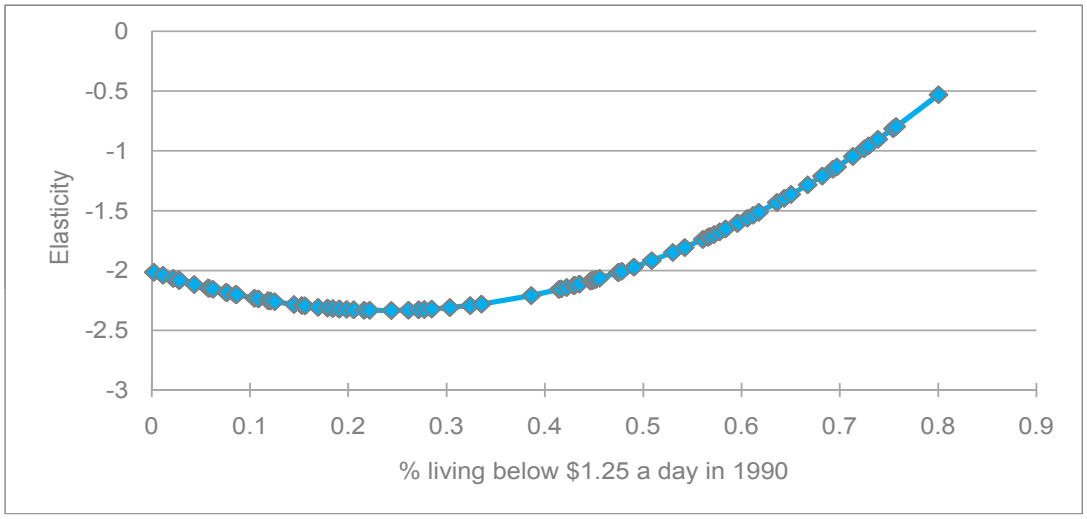


Source: ITC and Karshenas 2010a.

Whether there has been a worsening of income distribution in recent decades is a matter that can be, and has been, studied directly. But low poverty elasticities despite GDP growth are not convincing evidence for income distribution changes, as both the survey-based and GDP-based elasticity estimates use the same Lorenz curves. This is shown in poverty elasticity estimates based on the calibrated survey means in figure 31 and figure 32, which shows much higher elasticities as compared to GDP-based estimates. Elasticities based on survey means in figure 31 and figure 32 are in fact about 1 percentage point higher than the GDP based elasticities in absolute terms. The reason for the lower GDP-based elasticities should be sought in the links between GDP and household income/consumption rather than worsening income distribution.

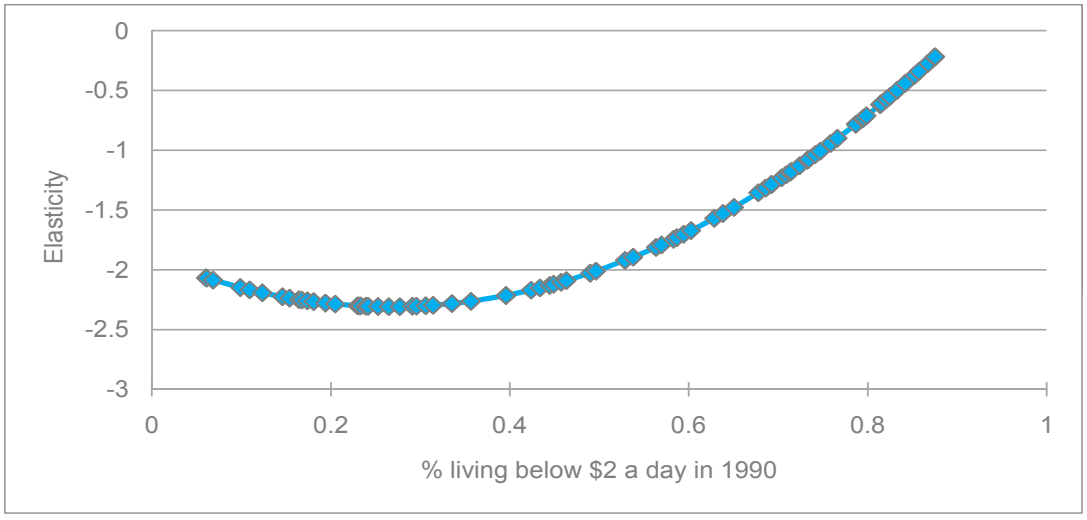
There are various reasons why the growth of household survey means should be lower than GDP per capita growth rates. In order to accelerate their growth rates, low-income countries may be devoting an increasing share of their GDP to savings and investment. During the development process a growing share of GDP is also devoted to public services. Remittances, which are not part of GDP but make a large contribution to the budget of the poor households, normally decline as a proportion of GDP in the course of development. Income from informal activities, which are likely to be recorded in household income or consumption surveys but less so in official GDP estimates, also grows less than GDP. If a major share of the GDP growth is invested, it does not accrue to household incomes or consumption.

Figure 31: Growth elasticity of poverty reduction ($1.25/day line)



Source: ITC and Karshenas 2010a.

Figure 32: Growth elasticity of poverty reduction ($2.00/day line)



Source: ITC and Karshenas 2010a.

EXPORTS AND ESCAPE FROM MASS POVERTY

This section identifies the importance of exports as a determinant of performance in reducing poverty, distinguishing between countries that have successfully escaped mass poverty and those who lag behind in this regard.

Our research shows that most of the absolute poor live in dynamic economies where poverty rates are rapidly declining, and per capita exports explain a high proportion of the variations in poverty.

The link between trade, growth and poverty is mediated through income-distributional changes that accompany trade expansion and economic growth. This section points to a robust relationship between absolute poverty and exports, given the strong correlation between exports and GDP growth, with the implication that export-encouraging policies can be poverty-reducing. The results of the discussion in the previous section, therefore, have direct bearing on the relationship between exports and poverty. Accordingly, the countries for which absolute measures of income-poverty under the global 'dollar a day' lines are available are classified in this section into three groups; namely, (i)- the middle-income countries that have relatively low or 'normal' levels of income poverty based on the international poverty lines, and – within the group of low-income countries suffering from mass poverty – (ii) the 'successful' countries that have managed to escape the condition of mass poverty and (iii) the 'unsuccessful countries' that have been stuck in the condition of mass poverty, or are only emerging from that condition very slowly.

For this report, a country with mass poverty is defined as one where in the initial period the share of population living on less than $2 is day is over 50%. The successful countries are those that have succeeded in reducing their headcount poverty to below 50% by 2007. According to these criteria 44 countries or about half of the developing countries in our sample record the condition of mass poverty, and six of them qualify for the successful list.

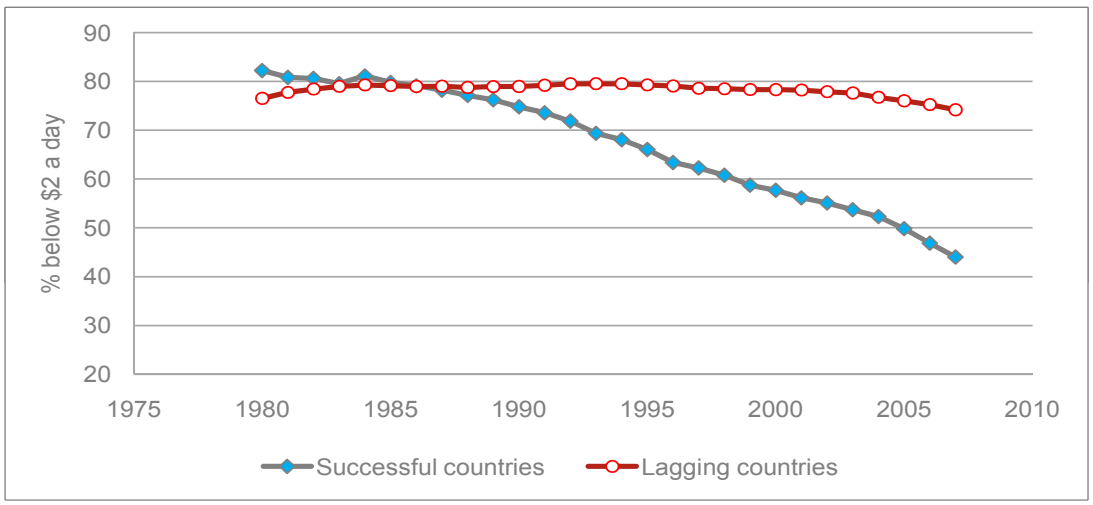
Figure 33 shows poverty trends in these two groups. The successful groups have managed to reduce headcount poverty rates from over 80% in the 1980s to close to 44% in 2007, while for the lagging countries, the total poverty rate has remained at well over 70% throughout the period.

What is reassuring, however, is that the majority of the absolute poor have lived and still continue to live in the few dynamic economies that constitute the successful list comprising the countries with rapidly declining poverty rates.

Figure 34 shows the share of the population of the two groups as a percentage of developing country population, as well as their share of the individuals living below $2 a day as a percentage of total global number of the poor.[50] The population share of the successful group declined from 63% to 57% between the early 1980s and 2007, while their share of the global poor declined by close to 20 percentage points from about 77% to 58%. Both the headcount ratio and the number of the poor in this group of countries were declining over this period.

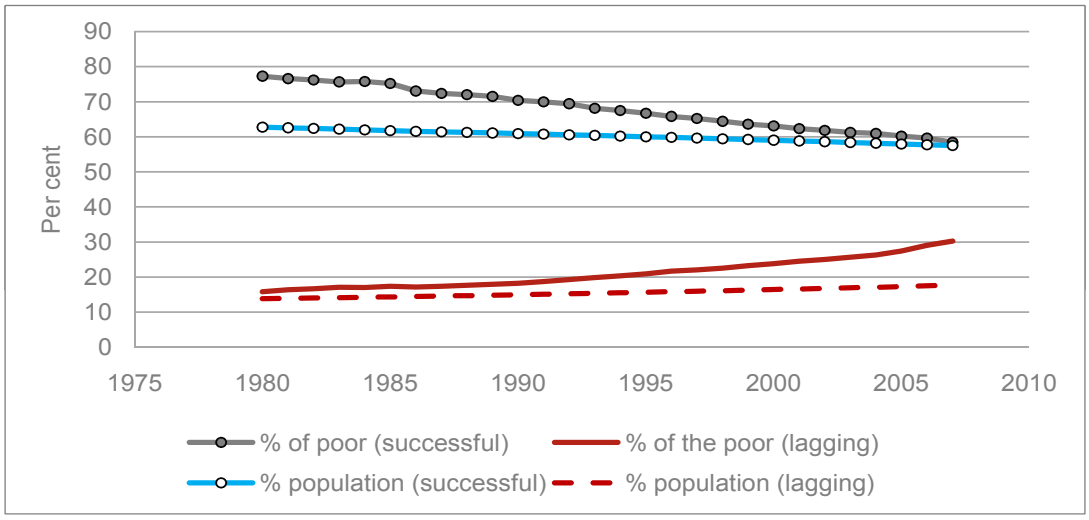
The lagging countries, on the other hand, recorded an increase in both population share and proportion of the poor (figure 34). Their share increased from about 13% to 18% of the total population between the early 1980s and 2007, while the percentage of their population living below $2 a day increased from about 16% to over 30%. Most countries in this group have shown moderately declining headcount poverty rates since the mid-1990s, but the number of the poor, defined here as those living below $2 a day has been continuously increasing. In relative terms, economic performance in all the countries in this group seems to be lagging behind the first group.

Figure 33: Headcount poverty trends, successful country group vs lagging countries, 1980–2007



Source: ITC and Karshenas 2010a.

Figure 34: Share of total population and share of persons living below $2 a day, successful group vs lagging countries, 1980–2007



Source: ITC and Karshenas 2010a.

The combined population of the two country groups constitutes about 75% of the total population, and their headcount poverty is close to 90% of the global poor based on the $2 a day poverty line, and 92% of the poor based on the $1.25 a day poverty line. The remaining 44 countries in our sample, which are by and large middle-income countries where poverty levels are well below mass poverty levels, account for about 10% of the global poor in 1990. It appears therefore that in the initial period in 1990 the majority of the poor lived in countries that were characterized by mass poverty. As discussed in the previous section, this should entail a robust relationship between economic growth and the reduction of absolute poverty for this group of countries. By implication, for this group of countries one should also be able to observe a robust relationship between absolute poverty and economic variables that are strongly associated with GDP growth, such as export growth. Figure 35 shows the relationship between the growth of per capita exports and change in poverty over 1990-2007 for the countries that were characterized by mass poverty in the initial period. Change in poverty is measured as the change in the logarithm of the odds ratio of being poor (log(h/(1-h)), and export growth is the log difference in per capita real exports between 1990 and 2007. The fitted regression line has a highly significant coefficient of -0.48 with an R2 of 0.61 which is double the R2 for the overall sample obtained in the section entitled Exports and poverty.

Considering that the 44 countries with mass poverty in the initial period consist of a highly heterogeneous group of countries, it is remarkable that the variations in per capita exports explain such a high proportion of the variation in headcount poverty. Therefore, it will not be surprising to find that the distinction between the successful countries and those lagging behind made above on the basis of poverty trends is also mirrored in relation to export performance of the two groups. Figure 37 shows, the trends in real per capita exports for the successful countries and the laggards appears like an exact mirror image of the trends in headcount poverty in the two country groupings.

Strong association between export growth and poverty reduction of course does not necessarily posit any straightforward causality between the two. To detect causality one needs to investigate the channels through which export growth is linked to changes in poverty by detailed case studies in each individual country. What the strong correlation between export growth and poverty reduction shows, however, is that policies that encourage the growth of exports and integration in the global economy can at the same time be poverty-reducing. This statement, however, has been questioned by some, as globalization is believed to have intensified poverty through adverse distributional changes. For this reason it will be useful to decompose the changes in poverty in the three broad country groupings into distribution and growth components and investigate the quantitative significance of each to the observed change for the reduction in poverty.

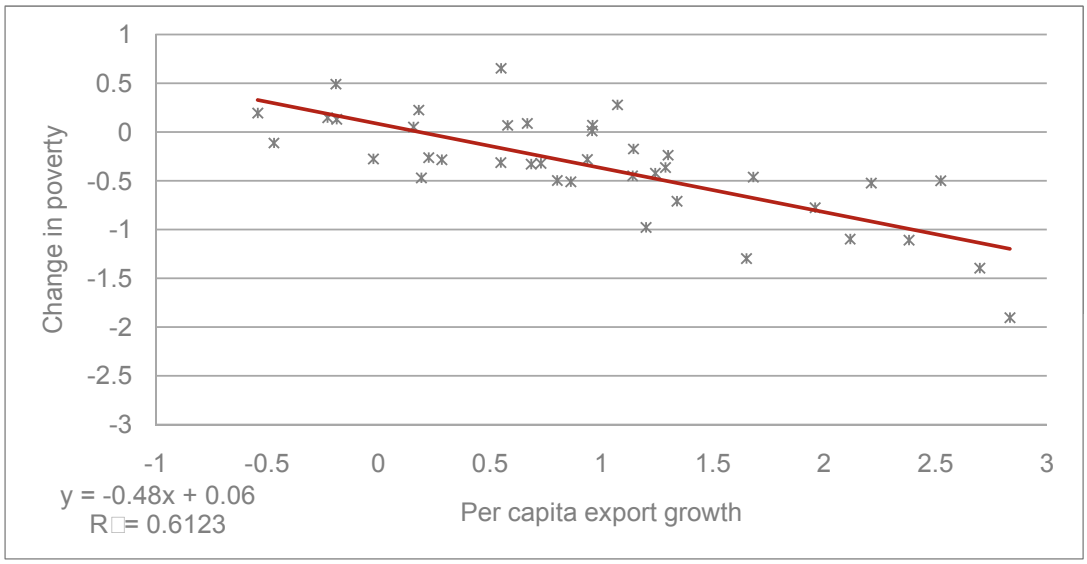
TRADE, INCOME DISTRIBUTION AND GROWTH

This section identifies the relationship between trade, income distribution and changes in poverty since 1990.

The countries trapped in poverty suffer from both low levels of export diversification and high levels of price instability. Together these probably compound the other factors limiting their poverty-reduction impact. However, the relationship between economic growth and trade expansion, particularly export growth, has always been robust and significant.

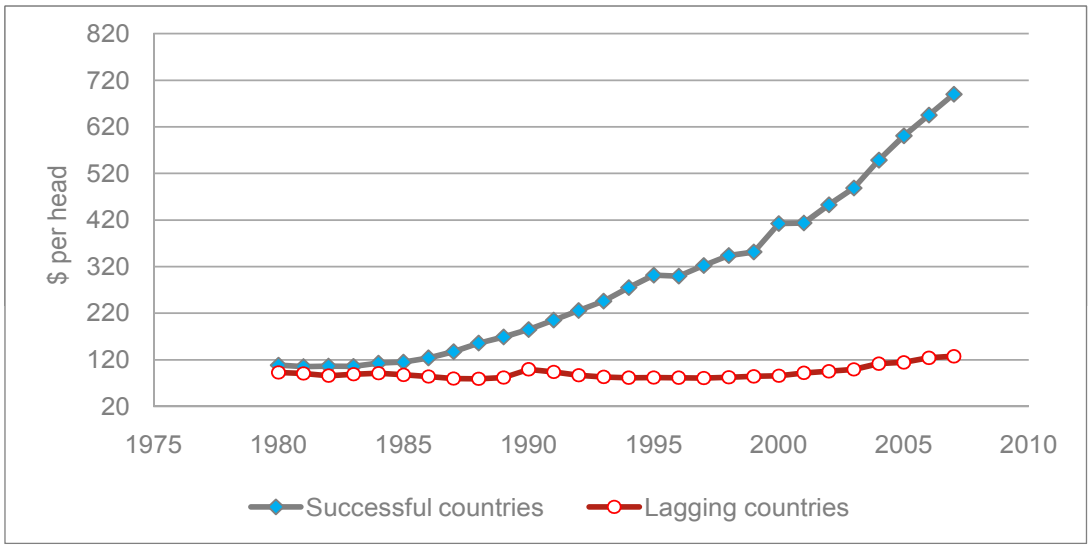
There are broadly two types of studies on the relationship between trade and income distribution in the context of the

Figure 35: Relationship between export growth and change in headcount poverty ($2/day), 1990–2007



Source: ITC and Karshenas 2010a.

Figure 36: Trends in per capita exports in successful countries and lagging countries, 1980–2007



Source: ITC and Karshenas 2010a.

developing economies. One focuses on the predictions of conventional trade theory and has investigated wage differentials over the past three decades. By and large the various studies in this genre have found increasing wage differentials between unskilled and skilled labour (e.g., Wood, 1994, 1998, Feenstra and Hanson, 1997, Robins, 1997, Hanson and Harrison, 1999). The second type of literature has focused on explaining the cross-country variations in personal distribution of income (e.g., Lundberg and Squire, 2003, Ravallion, 2001, Milanovic, 2004 and Dollar and Kraay, 2002). While some studies have suggested that trade openness appears to have no impact on income distribution (e.g., Dollar and Kraay, 2002), others have found a positive relationship between openness and inequality, that is, more inequality (e.g., Lundberg and Squire, 2003 and Milanovic, 2004). The difficulty of disentangling the effect of trade on income distribution from that of other factors, such as technological change, education, and other country-specific policies and institutions, has amongst other things contributed to the inconclusiveness of this debate. The aim here is not to resolve the controversies, but rather to try to quantify the likely impact of income distribution on changes in absolute poverty since 1990 in a global context.

For this purpose, in addition to the main poverty trends discussed above, this chapter also presents maximal and minimal poverty-reduction paths under different distributional assumptions. The maximal path assumes that in each country in our sample of 89 countries the Gini coefficient

remained at its highest observed level during 1990–2007 period, while average income or consumption grew at its observed rate. The minimal path assumes the Gini coefficient remained at its lowest observed level during the 1990–2007 period.[51] A comparison between the main estimates and the minimal and maximal growth paths helps to discern the extent to which distributional changes have affected poverty during the observation period.

The results are presented in aggregate form for each of the three country groupings in figure 38. As noted in the previous section, in low-income countries experiencing mass poverty the minimal and maximal paths are too close to the main poverty path based on the $2 a day poverty line. We shall be therefore commenting on the impact of the income-distribution changes on poverty trends only in the case the $1.25 a day poverty line, shown on the left panel of figure 38. As expected, in the case of country group I income-distribution changes seem to be exerting a relatively more important influence on absolute poverty than in the other two country groups. In aggregate it appears that in this group distributional changes played a negative role in poverty reduction during the 1990s, but since the late 1990s their influence has been poverty-reducing. Had income distribution been kept at its most equal in each country, by the end of the period poverty would have been 1.1 percentage points below its actual level (7.9% compared to the actual level of 9%). On the other hand, the actual poverty levels in 2007 were more than 2.5 percentage points below the maximal level of 11.6%. A similar story is told by panel (c.) in figure 38 about poverty trends in Group II countries, with the difference that variations around the actual trend are relatively more moderate. The share of people living on less than $1.25 a day in this group of countries in 2007 was 49.6% compared to the minimal level of 47.5% and the maximal level of 52.4% in that year. In a sense the experience of these two groups could be summed up as benign from the viewpoint of distribution as the actual outcome has been more biased towards the minimal path. On the other hand, to the extent that the actual outcome has deviated from the minimal, the effect of worsening income distribution on poverty incidence can be interpreted as adverse.

Group II, the countries with mass-poverty where poverty reduction is lagging behind others, comprises 36 developing economies. These are primarily African LDCs, with 32 located in Africa and 29 holding LDC status. Only one country in Group II, Papua New Guinea, is neither in Africa nor an LDC. Exports from the these countries are composed primarily of natural resources; in terms of Harmonized System 2 digit chapters, minerals and mineral fuels (including oil) account for 54%, followed by textiles and apparel with 14%, processed agricultural products with 8% and vegetables and fruits with 6%. The group's primary export partners are the EU and United States, with 33.1% and 23.7% of exports in 2009, followed by China (9.1%), India (6.9%) and Brazil (6.3%).

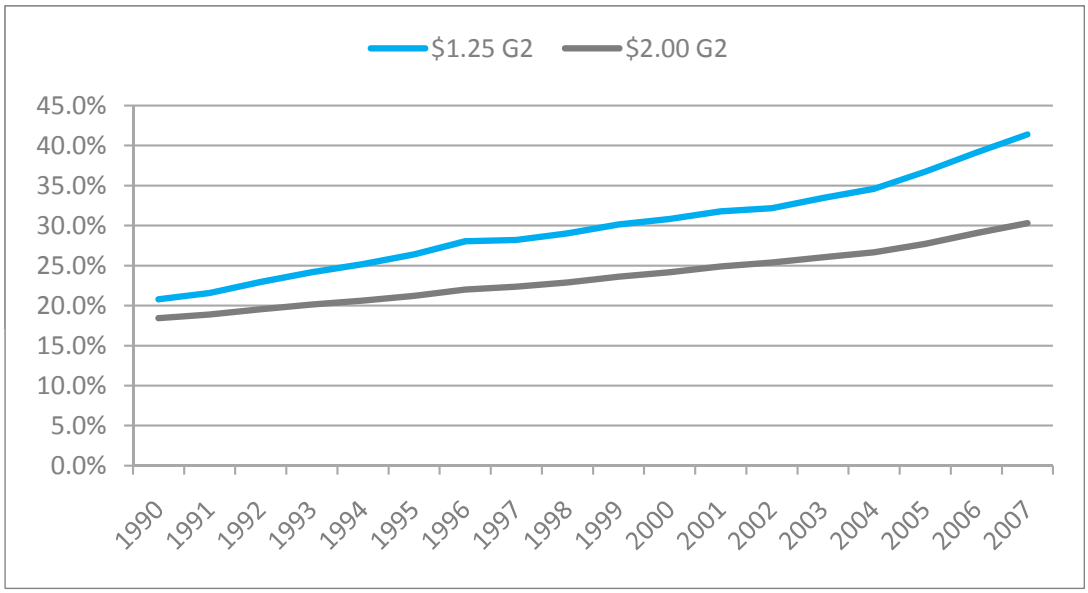
The lagging countries show higher levels of price instability relative to those countries in the successful Group III. Nine show even significantly higher levels of price instability in their export basket relative to the two most price-instable successful countries; while an additional 16 show higher levels of instability relative to the final four successful countries. Similarly, the lagging countries show low levels of diversification – the product export diversification of only one such country, Nepal, ranks within the same high range as the successful countries, while only 8 of the 36 lagging countries have export partner diversification as high as that found among the successful countries (see Statistical Annex). Simply put, the lagging countries suffer from both low levels of export diversification and high levels of price instability, which together likely compound the other factors limiting their poverty reduction.

Group II countries' relatively stagnant levels of poverty, possibly caused by disadvantages in terms of trade diversification and susceptibility to price shocks, has led to a shift in the estimated distribution of headcount poverty throughout the world during the last two decades. As a result of declining or steady poverty levels in other countries, particularly those in the successful group, the Group II countries have increased their share of estimated headcount poverty significantly, from about 21% of the global poor below the $1.25 line in 1990 to about 41% in 2007, and from about 18% of those below the $2 line in 1990 to about 30% in 2007 (see figure 37). Given the overwhelming majority of African and Least Developed Countries within Group II, these conclusions may also be applicable to broader groups of countries for which poverty data is presently unavailable.

The experience of the third group, namely the successful group shown in panel (e) of figure 38, has been somewhat different. The steep ascent out of mass poverty due to rapid economic growth in this group has been combined with a worsening distribution of income to the extent that, by the end of the period, the actual outcome has moved very close to the maximal path. This group is dominated by China and India, and the rapid growth as well as the adverse distributional changes in these two large economies has been the main driving force related to aggregate outcomes in this group. The share of the population living below $1.25 a day in this group declined from about 46% in 1990 to 18.2% in 2007. This is very close to the 'maximal' poverty reduction of 18.9% and is 3.2% above the 'minimal' poverty result of 14.8% in 2007.

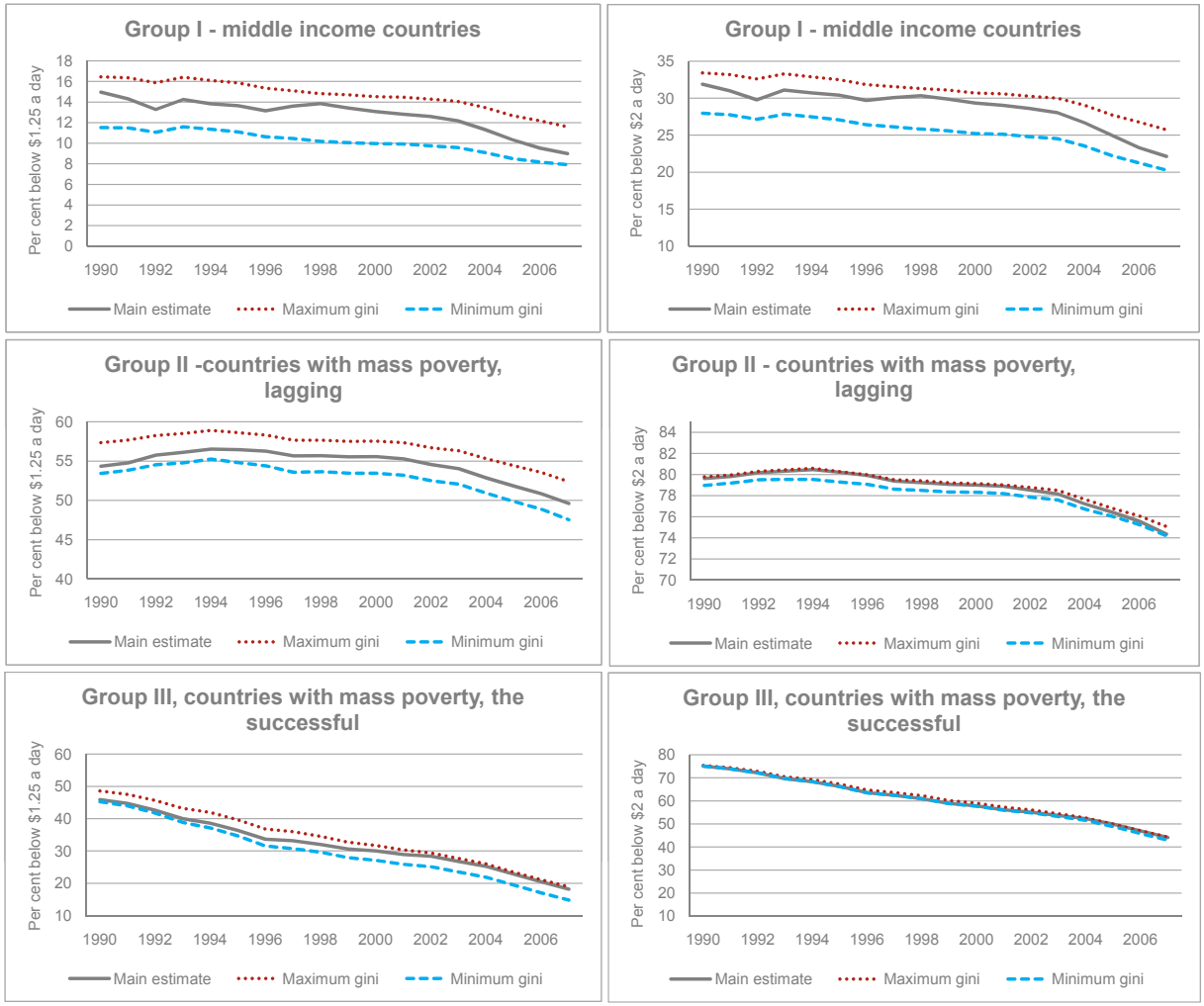
When compared with the overall long-term trends, the effect of within country income-distribution changes on absolute poverty in countries confronting mass poverty may appear very small. This is particularly the case for headcount poverty measured on the basis of the $2 a day poverty line shown in panels (d) and (f) in figure 38. Even in the case of successful countries and for the lower poverty line in panel (e) of figure 38, where income distribution changes have been unambiguously poverty-increasing, the 3.2% gap between the actual and the minimal poverty level is about one-tenth of the decline in poverty due to growth since 1990. This does not mean that income distribution plays a minor role in poverty reduction. To begin with, these results apply

Figure 37: Group II – lagging countries' share of the global poor



Source: ITC and Karshenas 2010a.
Note: based on estimated headcounts and actual population data; for sample representativeness see table 21.

Figure 38: Headcount poverty with minimal and maximal paths (headcount $1.25 and $2.00) 1990–2007



Source: ITC and Karshenas 2010a.

to absolute headcount poverty based on international poverty lines. Different notions of poverty and concern about the relative welfare of the poorest deciles within the poor can produce different results. Furthermore, the distinction between distribution and growth effects is mainly for intellectual convenience, which is very unlikely to hold in reality. Most policies directed towards income distribution changes also have important growth effects (e.g., land reform). What the above results imply is that for countries with mass poverty, economic growth is necessary for large reductions in absolute poverty. In fact, the more successful a country facing mass poverty is in reducing its poverty levels, the less significant the contribution of distributional component will appear, be it a negative or positive contribution. The growth-inducing aspects of trade, therefore, are likely to play a more prominent role in poverty reduction in countries with mass poverty.

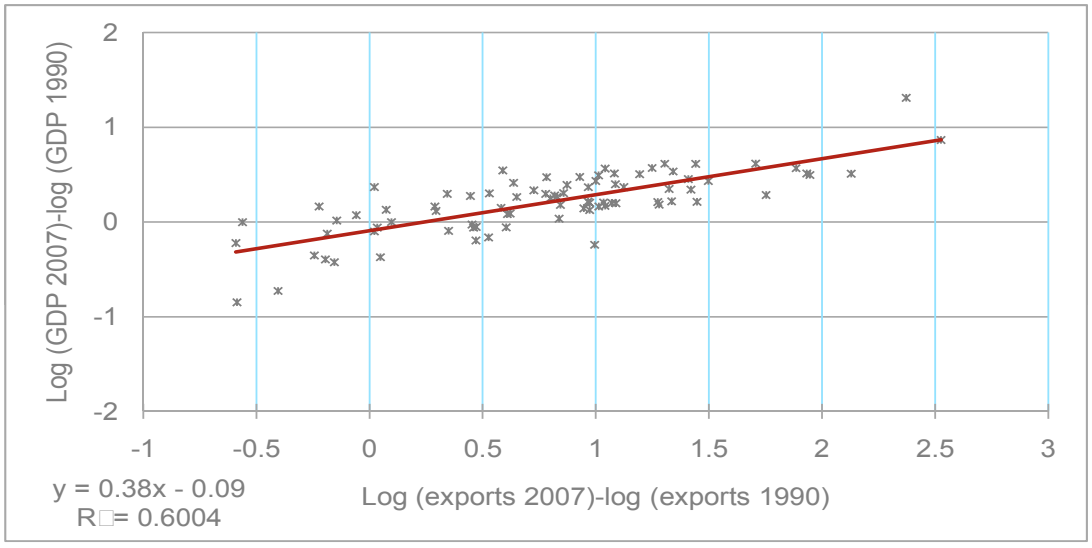
There is a voluminous literature on trade and growth. A great deal of the controversy in this literature has been about the effect of specific policies to promote trade and particularly the empirical specification of such policies and verification of their effect (see, e.g., Baldwin, 2006, and Rodrigues and Rodrik, 2000). In many of the cross-country studies as well as in individual country case studies, however, the relationship between economic growth and trade expansion, particularly export growth, has always been robust and significant. Figure 39 shows this relationship with respect to the developing countries in our sample for 1990-2007.

There is a highly significant correlation between long-term growth of exports and GDP, with a correlation coefficient of over 0.77. The addition of the usual growth-accounting variables such as growth of labour force, investment rate and initial GDP level only marginally reduce the coefficient of the fitted regression line in figure 39, but the relationship remains highly significant (the export growth coefficient falls to 0.32 with a t-ratio of 7.4). These results remain robust to the exclusion of observations of highly successful group III countries, or any other one of the three country groupings.

In the conventional growth-accounting framework, a positive and significant coefficient of export growth is normally interpreted as highlighting the effect of externalities associated with exporting activities or the greater efficiency of resource use in the export sector itself (e.g., Fedder, 1982). In the case of the countries confronting mass poverty, however, an even more critical contribution of exports may arise from the fact that they make possible access to new technologies and investment goods via imports. Particularly in the case of Group II countries, where in most cases the primary sector dominates the production and employment in the economy, foreign trade makes it possible to procure valuable manufactured equipment, raw materials and consumer goods through imports. Since the income elasticity of demand for such imports is high, in the early stages of development foreign trade as a share of GDP will inevitably increase. For this process to be viable, exports need to grow at an adequate rate to keep up with import needs. As figure 39 shows, there is hardly any country that has achieved positive long-term growth rates during our observation period without a simultaneous expansion in exports. These results indicate that export growth is a necessary condition for the long-term growth of GDP, which in turn is critical to poverty reduction in countries confronting mass poverty.

Along with the process of growth in primary-commodity exporting countries, a host of new services and industries will develop to cater for the needs of the growing agricultural and export sectors. Repair shops in villages and towns, and manufacturing workshops with forward and backward linkages to the agrarian and export sectors, will develop. These are essential ingredients in the process of growth, without which continued productivity growth in the agriculture and export sector will not take place. These industries also provide the groundwork for learning and training, which is the

Figure 39: GDP growth vs growth of real exports



Source: ITC and Karshenas 2010a.

essential ingredient for the next phase of development, i.e., the manufacturing and services export phase.

The manufacturing export phase ushers in a new phase of development in which foreign trade can play an even more important role in economic growth. Apart from some small oil exporting countries, a few countries have achieved high income and prosperity without entering this phase. The achievement of long periods of high and uninterrupted growth is also more commonly observed amongst the countries that have achieved this stage of development. Some of the reasons for this phenomenon are due to the nature of primary commodity producing activities. Primary commodity exports are subject to short-term price and demand fluctuations, as well as having episodes of medium to long terms of trade decline. Commodities are also subject to intense price competition, as a result of which productivity gains are normally passed to the consumers rather than benefiting the producers. Because of the involvement of fixed factors of production, such as land and reserves in mines, they can be also subject to diminishing returns. The most important factor that distinguishes the manufacturing export phase from the commodity phase, however, is that manufacturing is subject to substantial static and dynamic economies of scale and learning. Foreign trade in this phase plays an important part in realizing these dynamic economies. Increasing trade leads to increasing productivity gains, leading to improved competitiveness and higher trade.

BOX 6: ILO STUDY ON TRADE AND EMPLOYMENT

This section of the report deals primarily with the long-term linkages between export growth and poverty reduction, although the Global Financial Crisis has brought the issue of short-term impacts brought about by trade-shocks to the forefront of discussion. Although a detailed assessment is outside the scope of this report, recent findings by the International Labour Organization are useful in understanding how trade impacts on employment prospects in developing countries. An ILO study, ***Trade and Employment in the Global Crisis,*** describes the general employment impacts in the year following the 2008 financial crisis and trade slump, including detailed assessments for seven countries: Ukraine, Liberia, Uganda, India, South Africa, Brazil and Egypt. Country specific observations were based on official statistics, ILO Country Level Rapid Impact Assessments conducted at the behest of national governments, and economic modelling undertaken by the authors.

Drawing from the experiences of the seven countries, the book made several observations relevant to this report. First, concerning the general impact of trade on employment: while exports are associated with faster rates of job destruction, they also are accompanied by higher rates of job creation, such that net employment is not negatively affected during periods of normal trade activity. Second, during periods of international economic crisis the rate of employment destruction tends to increase, driven by both direct and indirect linkages with the global economy. One such example is the case of the Ukraine, where the metal export industry was sharply impacted by weakening global demand for automobiles, and as a result the domestic iron-ore mining industry was similarly impacted despite its limited exports. Third, where detailed data and analysis were possible, it appears that impacts on indirect employment (non-export sectors) were at least as large as on direct (export sectors) employment. Indirect impacts may come through supply-chain linkages with export sectors (as in the case of the Ukraine's metals and mining industries) or through reduced demand for all goods and services due to falling incomes in export sectors. Fourth, gender impacts depend on the countries' leading export sectors, with no clear single narrative emerging. For example, in countries where mining and metals production are dominant, the male workforce was more seriously affected. The converse is observed in countries with large textiles sectors. Finally, government stimulus plans to boost demand have been important in fighting the employment impacts of the crisis, although these efforts are threatened by reduced government revenues in 2009 of up to 5% due to lower incomes and business activity. This was an important consideration, given that rising food prices in 2008, coupled with declining wages in 2009, led to an overall deterioration in real wages, with the share of undernourished in the world increasing for the first time since 1969 (when data collection began).

Due to the differences identified in leading export sectors and their varying linkages to the domestic economy, differentiated employment impacts were observed among the countries detailed. In Brazil, in the Egyptian textile sector and in South Africa, unemployment increased. In Uganda and the Egyptian tourism sector wages declined. Finally, in the Ukraine and Liberia both total employment and wage and working conditions declined in tandem.

Complementing the most recent ILO study on trade and employment are 2009 findings regarding the interaction between informal employment and trade[52] based on empirical evidence available for a limited number of Latin American countries. This revealed that trade opening leads to growth of informal employment and wages, and in other cases to a decline. The varying impacts of trade on employment, whether formal or otherwise, are of high interest to trade proponents, and a possible area of focus in future ITC export impact for good reports.

(Jansen, Marion and Erik von Uexkull, (2010) Trade and Employment in the Global Crisis, International Labour Organization.)

Foreign competition in this phase would ensure production efficiency and flexibility in keeping up with changing technological and market conditions. Even in early stages where there are no major economies of scale in manufacturing production for exports, e.g., labour intensive workshops for textiles and clothing, the fact that exports allow employment and output to grow continuously, with or without labour productivity growth, is an advantage that the primary sector does not have. Because of the fixed factors of production, output and productivity growth in the primary sector is normally accompanied by reduced employment in these sectors.

The manufacturing export phase, however, does not appear on its own accord, and does not generate a self-sustaining virtuous cycle of income and export growth in a ***sui generis*** fashion. All the preconditions for growth generated in the previous phase should already be in place. A disciplined labour force and sufficient levels of technical and managerial expertise should have been attained in the process of economic development in the previous phase before the manufacturing export phase can start to kick in. In both the commodity and manufacturing export phases, foreign trade can also play an important part in transfer of new technologies from more advanced countries. Foreign direct investment is another important vehicle of technology transfer in both phases. However, in order to learn, adapt and assimilate new technologies, the country should have the necessary support infrastructure, institutional and manpower capabilities, and economic policies conducive to technology transfer in place.

POVERTY INTENSITY OF IMPORTS

On the whole, by 2005 the poor in developing countries captured a greater share of the money spent by developed countries on imports than they had in 1990. This was particularly because of earnings by China. The poor within LDCs, although most in need of revenues from abroad, receive only a miniscule share of the money spent by developed countries on imports, an un-weighted average of 14 US cents per $100 of imports into these developed countries. And in most cases their share was flat or declining from 1990 to 2005.

Following an assessment of the linkages between exports, growth and poverty, this section estimates the impact of 10 large and dynamic imports on poverty in developing exporters using the Poverty Intensity of Imports (PII) indicator. PII provides an estimate of the percentage of money spent on imports by a given developed country that ultimately goes towards those below the $2.00 poverty line using the share of total income in a country accruing to the poor (SIP1 and SIP2).[53] To aid in interpretation, all results have been multiplied by 100, and thus each country's measure can be read as the estimated dollar amount out of every $100 in imports which went towards the poor.[54]

In the first case, calculating PII for all partners with available data, a strikingly low share of spending on imports that goes towards those in poverty is estimated, ranging from $1.21 for Switzerland to $8.71 for Japan (out of every $100 spent on imports) (see **table 18**). More positively, all major importing countries but one have increased the estimated share of import spending that goes towards the poor since 1990. The single exception, Norway, appears to decline due to an anomalous trade year in 1990, when several developing countries saw their share of trade grow significantly higher than normal.[55] Given China's increasing share of international trade relative to other developing economies, calculations have been made both including and excluding trade with China in each importer's PII. For some importers (e.g., Iceland, Republic of Korea, Japan) this exclusion makes a huge difference, while for others (e.g., Switzerland, EU) the difference is less pronounced. But it remains significant for all importers analysed (with at least 58.5% of 2005 PII values for each importer derived from trade with China). When excluding China the signs of progress between 1990 and 2005 diminishes sharply, with 5 of the 10 reported importers showing a decline in their PII figure during this period.

Table 18: $2/day poverty intensity of imports (PII)

	88 developing countries		Less China	
Importer	1990	2005	1990	2005
Australia	3.09	6.59	1.23	2.09
Canada	1.27	3.53	0.57	0.98
European Union	1.88	2.52	1.27	0.92
Iceland	0.47	2.13	0.16	0.40
Japan	6.51	8.71	2.93	1.79
Republic of Korea	1.38	6.15	1.38	1.29
New Zealand	1.51	4.78	0.67	1.20
Norway	2.94	2.47	2.51	0.63
Switzerland	0.82	1.21	0.52	0.50
United States	4.24	7.39	2.04	2.46

Similarly, calculations of PII are made that exclude developing countries that are major fuel exporters (and, again, China) to indicate whether any importer's PII is particularly dependent on the price of fuels or trade in mineral fuels that may be less employment-creating. The results show that across the ten importers fuels play an insignificant role in the PII calculation, with trends in growth between 1990 and 2005 the same across all importers, and actual PII figures at most declining by just over 5% (for Canada) with this exclusion (see table 19).

Table 19: $2/day poverty intensity of imports – excluding major fuel exporters

	79 developing countries		Less China	
Importer	1990	2005	1990	2005
Australia	3.06	6.58	1.20	2.08
Canada	1.24	3.34	0.55	0.79
European Union	1.67	2.43	1.06	0.83
Iceland	0.47	2.12	0.16	0.39
Japan	6.33	8.56	2.75	1.64
Republic of Korea	1.34	6.07	1.34	1.21
New Zealand	1.49	4.65	0.65	1.08
Norway	2.93	2.47	2.50	0.63
Switzerland	0.80	1.18	0.50	0.48
United States	4.06	7.22	1.86	2.29

Note: Nine major fuel exporters – those whose export values in the most recent year reported were composed of at least 50% mineral fuels are excluded.

Table 20: $2/day poverty intensity of imports – LDC

	33 LDCs	
Importer	1990	2005
Australia	0.09	0.05
Canada	0.07	0.12
European Union	0.27	0.18
Iceland	0.02	0.12
Japan	0.21	0.21
Republic of Korea	0.22	0.16
New Zealand	0.04	0.16
Norway	2.04	0.09
Switzerland	0.07	0.06
United States	0.23	0.23

Finally, PII is calculated for the 10 importers based on their trade solely with the 33 LDCs with available data (see table 20). The poor within LDCs, although the very poorest and most in need of revenues from abroad, in fact receive only a miniscule share of the money spent by developed countries on imports, an un-weighted average of 14 US cents per $100 of the imports. Moreover, progress between 1990 and 2005 was worse for LDCs than for developing countries as a whole, with 6 out of 10 importers seeing their PII for LDCs decline during this period. Among the ten importers the share of their total PII accounted for by LDCs was less than one-twentieth, at only 3.7 cents of every dollar to the poor via trade going towards those within LDCs. Australia was the lowest at 0.7% (0.7 cents per dollar to the poor via trade) and the European Union the highest at 7.1% (7.1 cents).

PII methodology

To determine the poverty reduction intensity of a given importer, two data sets are utilized. The first is a measure of the share of national income going towards those within these poverty groups below the $1.25 and $2.00 per day level, which are denoted as SIP1 and SIP2 (share of income to the poor). These are calculated based on the surveys and income distribution data used previously. The second dataset provides the share of import-value these 89 countries account for in 10 developed economies (with the EU as a single block), using the IMF's Direction of Trade database. These indicators are then cross multiplied and summed to estimate a given importer's PII.

Sample representativeness

While trade data is available for all countries either directly or via mirror statistics, detailed poverty data is dependent on income and consumption surveys, which are not always available in equal quality and frequency; available poverty data has been treated to ensure comparability across countries and over time, but even so only 88 developing countries have data sufficient for analysis. Given that our sample includes only 89 developing country exporters, including Mexico which became an OECD Member, including 33 LDCs (of 49), and the corresponding 10 importers, it is desirable to assess the degree to which these countries represent global population, poverty, and trade (for each importer).

Imports for the 10 developed importers are only partially sourced from the 88 developing countries, but the addition of more developing countries would not have a significant impact on the poverty intensity measure, because 98% of global poor below the $2/day line are in our sample of developing countries. The importer's share of imports represented implies the theoretical maximum PII for that importer, because it is assumed that the share of income accruing to the poor in exporting developing countries was proportional to the imports (which may be considered optimistic).

Table 21: Sample representativeness of selected developing countries

Measure	% represented
World population*	75.4%
Poverty headcount at $1.25/day line**	97.9%
Poverty headcount at $2.00/day line**	98.3%
Imports of…***	
- Australia	30.7%
- Canada	18.9%
- European Union	13.7%
- Iceland	9.7%
- Japan	41.0%
- Republic of Korea	28.7%
- New Zealand	22.7%
- Norway	12.0%
- Switzerland	6.3%
- United States	42.2%

Sources:

* World Bank World Development Indicators 2009, 2007 figures. Supplemented with CIA World Fact Book 2010 data for Afghanistan, Iraq, Nauru, and Tuvalu.

** Population data from 1 cross-multiplied with 2001-2007 estimated average poverty rates from the United Nations Development Programme – 2010 Human Development Report to determine global and sample headcounts of poverty.

*** International Monetary Fund – Direction of Trade Statistics 2009.

PII conclusions

The results of PII calculations reveal that on the whole, by 2005 the poor in developing countries captured a greater share of the money spent by developed countries on imports than they had in 1990. This observation raises important questions, not about the degree to which trade can be used to combat poverty, but rather the degree to which trade has been instrumental in reducing poverty over the last two decades. The PII provides developed importers with one measure of their efficacy in fighting poverty through trade channels, both relative to prior years and compared to other developed economies.

This progress, however, also needs some strong qualifications. LDCs received only a miniscule portion of the trade revenue going towards the poor, and in most cases their share has been flat or declining over the period. Main gains were indeed made by the poor in some successful countries, such as China, but its strong performance in both trade and poverty reduction has yet to be matched by any other developing and least developed countries' experiences. Furthermore, these estimates indicate that vast swathes of the global poor have been excluded from the benefits that trade holds, in some cases due to the market access issues discussed throughout Chapter 2 of this report and by numerous other studies. The results also suggest that those in poor countries are in need of further TRTA and Aid for Trade support programmes to ensure that going forward they do not continue to be excluded from the poverty-reducing potential of trade.

IMPLICATIONS FOR POLICY

While there is little dispute amongst economists and policymakers about the significance of sustainable export growth for long-term economic growth, as sketched above, opinions diverge when it comes to specific policies, particularly trade policies, that can operationalize the potential contributions of foreign trade to economic development. Such disagreements are unlikely to be resolved at a general theoretical level. Apart from policies that dictate the mode of integration of the developing economies into the global economy, the sustainability of growth depends on a host of other policies as well as the nature of the institutions and capabilities specific to each country. As a result of such institutional specificities, analysis that can lead to workable policy recommendations needs to be predominantly country-specific. It is, however, clear that such policies will not be workable if they do not guarantee an adequate growth of exports on a sustainable basis. Success depends on international measures:

- Aid for trade: As noted, most countries confronting mass poverty belong in the LDCs of sub-Saharan African list. Aid for trade is required not only to build capacities for export growth, but also to make it possible to have an inclusive growth process (e.g., finance and know-how for building infrastructure, factor and product mobility, information, etc.)
- Improved market access to major markets reduces poverty, especially in poorest countries, reinforces the focus of measures for LDCs and is consistent with achieving global fairness. It may be re-emphasized that measures that seek to promote fair trade must be consistent with the objective of facilitating market access not a hindrance.


-3.05
64.25
+6.02
-4.02
84.50
43.57
-0.58
42.58
+5.36
-2.06
52.20
-2.05
66.51
-1.56
65.36
56.35
+1.20
45.36
-3.21
-6.36
85.25
+3.65
15.36
-3.65
24.56
55.62
+0.25
71.02
-1.65
64.25
36.21
43.57
65.81
19.55
84.20
25.67
26.34
88.69
88.60
2.36
10,000
9,500
9,000
8,500
-509.39
Day's loss: -369.88
9:30A.M.
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CHAPTER IV

VOLUNTARY STANDARDS: BOOM OR BUST FOR DEVELOPING COUNTRIES?

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VOLUNTARY STANDARDS: BOOM OR BUST FOR DEVELOPING COUNTRIES?

This Chapter presents a detailed and in-depth analysis of the outcomes and impact of 'Fair Trade' voluntary standards on producers and exporters in developing countries. In assessing voluntary standards as one type of intervention in markets, it is important to understand that the policy choice is between different aspects of second-best solutions.[56]

So far the Fair Trade movement has concentrated mainly on trade in goods, particularly commodities. As early as a decade ago, however, Cleverdon and Kalisch examined the feasibility of 'fair trade' in tourism. The Preamble of the WTO General Agreement on Trade in Services (GATS) may be read as seeking to achieve 'fair trade' in the sense of a level playing field, of procedural fairness and perhaps even as consistent with the aims of the Fair Trade movement. Prima facie it should be possible to extend Fair Trade to include trade in at least some services.

The Fair Trade movement can be distinguished from 'fairness in trade' in being 'concerned with impoverished and exploited producers located primarily in developing countries – not with protecting domestic industries and corporations.'[57] On the other hand, the Fair Trade movement targets specific producers or groups of producers, rather than specific developing countries, groups of developing countries or developing countries as a whole. In this respect, it differs from 'fairness in trade' in the sense in which it is commonly used in the discourse of international organizations to mean equality of opportunity, or equity of distribution, or both, as goals to be achieved through trade negotiations and improved management of international trade.

In the past, economists often argued that the Fair Trade movement 'represents alternative socioeconomic behaviour which conflicts with concepts of rational action and efficient resource allocation.'[58] However, recent research in economics,[59] seriously questions the assumptions underlying these basic concepts. Research on the architecture of markets [60] and its adaptation in the field of international trade law[61] suggest that there is room for an alternative, more convincing analysis of the Fair Trade movement based on economic sociology. Patel (2009) observes that 'humans have evolved complex behaviours that include in-built desires for altruism and fairness as well as selfishness and avarice.'[62]

The introduction of voluntary standards and labelling starting in 1988 with Max Havelaar and then third-party certification, the inclusion of food products starting with coffee, the professionalization of shops and alternative trade movements and the creation of regional and international networks (EFTA, IFAT now WFTO, NEWS, FINE)[63] substantially altered the character, dynamics and reach of the movement.[64] For example, Fair Trade Labelling Organisations International (FLO) consists today of 24 organizations (19 labelling initiatives, 3 producer networks and 2 associate members).[65]

Over the past two decades, a new type of 'conscious consumer' has emerged as a powerful force, particularly in high-income economies, increasingly demanding more complete information on products. Non-governmental organizations (NGOs), consumers and the media have increased pressure on branded product manufacturers and retailers to act in a more environmentally conscious and socially responsible way. A plethora of voluntary labels[66] has emerged as a way to indicate the application of principles such as protecting social rights, conserving the environment, or promoting sustainable agriculture. From a small base, market shares of products carrying these claims have seen unprecedented growth, and demand is expected to increase further. Tapping into these high-growth markets presents an attractive opportunity for producers and exporters in developing countries and for traders and retailers. Yet, important questions remain as to the ability of producers from developing countries to successfully participate in and benefit from these programmes.

THE PRODUCER AND EXPORTER: OPPORTUNITIES AND RISKS

To what extent do voluntary standards represent opportunities or risks for producers in developing countries? From an exporter's perspective, the key questions include:

- Do voluntary standards facilitate market access or do they represent a new market barrier?
- Is participation in voluntary standards profitable?
- Do voluntary standards provide upgrading opportunities?

Other questions go beyond the producer:

- Do standards change the distribution of economic returns, power and institutional relations across the value chain?
- Are there significant social and environmental impacts from voluntary standards?
- When is a standard credible?
- Do governments have a role to play regarding voluntary standards?

THE PRODUCER'S PERSPECTIVE: FACILITATING MARKET ACCESS OR A NEW MARKET BARRIER?

Fair Trade and organic markets have grown at double or treble the rates of conventional markets in many categories. Between 2002 and 2007, sales of certified organic products doubled and reached $46 billion. By 2012, sales are expected to reach $67 billion. According to the International Coffee Organization (ICO), worldwide imports for organically certified coffee grew by an average of 41% annually in 2003/04–2007/08, while the overall imports for conventional coffee grew by only 2.6% annually in the same period. Fairtrade-labelled products, particularly bananas, flowers, sugar and coffee, increased sales by 38% over the period 2003/04–2007/08, according to FLO. Similarly, the forest area certified by the Forest Stewardship Council (FSC) grew by 250% over the same period.

A study by Araujo et al. (2009), identified consumer demand and market growth as strong incentives for producers of forestry products in Brazil to engage in certification. Besides being part of a growing market, producers also may benefit from the opportunity to get closer to buyers who better understand their needs. For example, Fairtrade has been recognized in various studies as a way to engage small-scale or disadvantaged producers in cooperatives and connect them to these expanding markets in the case of tea (Raynolds and Ngcwangu, 2010) as well as coffee (Giovannucci and Ponte, 2005). Overall, participating in global value chains through voluntary standards has the opportunity to translate into beneficial long-term trade relations and systems of 'preferred buyers' (Henson, 2006).

But what happens when these markets are not niche opportunities for producers to choose from but become a de facto requirement to export certain products? In categories such as fruits and vegetables, supposedly voluntary standards are becoming ubiquitous and unavoidable for accessing global value chains. Of the largest food retailing chains in Europe who require their suppliers to be GlobalG.A.P. [67] compliant, seven alone account for 76% of fresh fruit and vegetable sales and 70% to 90% of fresh-produce imports from Africa (Webber and Labaste, 2009).

In this context, questions have been raised about:

- Increased costs of compliance as criteria go beyond regulatory requirements (Henson, 2006);
- Potential anti-competitive behaviour of dominant firms (Casella, 2001);
- Governance at the national and international level, including the role of WTO (Henson, 2006; Nadvi and Waltring, 2003) (see Chapter II).

Voluntary standards have been criticized by some authors as being de facto non-tariff barriers to trade (Chang, 1997; Verbruggen, Kuik and Bennis, 1995) threatening the 'viability of the international food trade system, established by nation states; generating unintended but significant barriers to trade for small producers in developing countries and functioning without the accountability of a review body' (Roberts, 2009 p. 254).

VOLUNTARY STANDARDS AND PROFITABILITY

A major assumption behind the growth of voluntary standards is that they result in positive economic, social and environmental changes across the value chain, starting with the producer. But do they? Do the positive impacts of voluntary standards outweigh the costs of introducing and operating them? A recent report of the ISEAL Alliance, the global association for social and environmental standards, says that most impact assessment activities have been carried out as isolated exercises and 'suffer from a lack of broadly comparable data and a limited ability to draw system-wide conclusions about impacts.'[68] The report goes on to state that the field lacks consensus not only on what needs to be measured but also how it should be measured.

At the producer level, the impact on overall income needs to take into account both the increased revenue effects – through price premiums, reduction of inputs, increase in yield, increased productivity, and product quality – and also increased investments and ongoing costs of participation – including certification and auditing costs, additional labour, lower yields and change in farming practices. Costs of adopting standards and benefits reaped from doing so largely depend on producer circumstances, such as size, experience, administrative and technical capabilities and location.

In a review of studies on certification impacts, Blackman and Rivera (2010) analyse the conclusions of 37 studies spanning across the most frequently certified products (bananas, coffee, fish, timber and tourism) and find that only six studies provide what authors define as methodologically sound[69] evidence supporting the hypothesis that certification has positive socio-economic or environmental impacts at the producer levels. Eight studies found that certification did not have an observable impact and the remaining 23 are methodologically unsound according to the criteria set by the authors. Still, even accounting for limitations in the applicability of the data,[70] a number of studies provide insight into factors influencing economic impact at the producer level. It should be noted that with the exception of Fairtrade, voluntary standards do not guarantee a price premium, but the studies do indicate that higher prices can be paid for meeting other standards as well.

Beyond the immediate premium, however, some studies on organic certified coffee exporters highlight that increased income may also arise from other factors such as higher yields (Bolwig et al., 2008; Kilian et al., 2006; Nemes 2009). When certification did result in a higher net income for the producer, the additional revenues enhanced business prospects as they were invested in productive infrastructure, improved access to credit, enabled transition to organic production and facilitated technical improvements leading to higher productivity (Bacon, 2004; Fort and Ruben, 2008; Murray et al., 2003; Nelson and Pound, 2009).

The cost of compliance with a standard is an important issue for producers when considering certification. Several studies assessing the costs of compliance with the GlobalG.A.P. standard found that costs are significant, but vary greatly according to producer and exporter characteristics. Preparedness of exporters and economies of scale were found to be major factors in keeping costs manageable for farmers. Studying 11 exporters in Kenya, costs per small farmer certification were found to amount to over £1,000 (about $1,470).On average 36% was borne by the farmer, 44% paid for by the exporter and 20% funded by external agencies. A study of 439 small-scale export vegetable producers in Kenya concluded that initial and recurrent cost of GlobalG.A.P. certification amounted to one-third of farmers' annual income, although exporters and donors paid for external auditing, certification, training and soil analysis.

Overall, it is hard to generalize about the economic impact of certification for producers. Certain producers have indeed seen positive net income subsequent to their participation in voluntary standards, but this is not the case across all products, certifications and regions. Ultimately, results are highly variable and depend very much on local conditions and how standards are implemented.

VOLUNTARY STANDARDS AND EXPORT CAPABILITY

Standards, through their specific requirements, either encourage or prescribe changes in organizational processes and production practices that can help producers upgrade their skills. Several studies show that implementation of certification requirements leads producers to improve management and monitoring systems, to increase productivity, to implement good farming practices, to improve resource management and to have better access to credit.

Nevertheless, implementing standards requires resources and capabilities, which small producers in many cases do not have. Consequently, for a majority of standards, these producers face more problems to attain certification than larger ones, including higher production costs, infrastructure requirements or the need to implement control and management systems.

In addition to the possibility of upgrading, some of the standards have also been found to facilitate greater integration in global value chains, with opportunities to improve post-harvest processing, product quality and supply capacity. But this appears to be strongly influenced by the role that buyers chose to play. In the case of Fairtrade, Raynolds (2008) distinguishes among mission-driven, quality-driven and market-driven buyers according to the role they play in the value chain. In quality-driven buyer-seller relations, buyers collaborate with producers aiming to reach and maintain a certain quality level of the product. This relationship is characterized by more direct and stable

trading relations, income predictability and pre-financing. However, market-driven buyers pursue conventional business practices, promote competition among certified producers and mainly see certification as a traceability or reputation-enhancing tool.

VOLUNTARY STANDARDS AND DISTRIBUTIONAL IMPACT

An important question regarding voluntary standards is whether and how these modify the distribution of economic rents, power and institutional relations across the value chain. Much of the initial research on this topic has used the global commodity or global value-chains theory that provides a framework for analysing how economic value is created and how it is controlled along the chain. The model addresses the spatial dispersion of activities, the input-output structure, the power relations that coordinate the activities and the institutional frameworks in which production and exchange activities are embedded.

With regard to the spatial dispersion of activities, Sexsmith and Potts (2009) found evidence that standards do alter the territoriality of value chains by 'diverting products to markets that demonstrate greater demand – and may be willing to pay a premium price – for items that have been produced under sustainable conditions'. This, for example, is the case for the coffee market in the Netherlands, where 25% of coffee consumed in 2008 was certified, or the United Kingdom, where Fairtrade bananas achieved a market share of 27% in value in the first half of 2008.

The topic of input-output structure and the distribution of rents across the chain, however, is a more controversial one. Regarding the incremental market value of these products, some experts in the field propose that 'if supermarkets were interested in maximizing the sales of sustainable produce, they would accept an equal or lower margin on Fairtrade-labelled goods' (Vorley, 2003, p. 36). The limited research that exists today does not make it possible to draw firm conclusions on this issue. However, case studies in coffee and bananas point to the opposite being the case, with incremental value generated by certification being appropriated over-proportionately by processors and retailers, even taking into account higher stocking and developing costs for niche products.

In a study of Fairtrade coffee in Nicaragua, Mendoza and Bastiaensen (2003) found that while the final consumer price in Europe was 34% higher, the price paid to producers had increased by only 4%. In the case of bananas, a case study carried out in Central America by Kilian et al. (2005) found premiums at producer level for organic or Fairtrade bananas in 2004 ranging from 15-50%, while premiums at the retail level for these products in Europe oscillated between 50% and 100%. This is confirmed in another study of bananas carried out by the French agricultural research centre CIRAD, which found that supermarkets captured most of the retail value, with 33% in the fair-trade chain and as much as 40% in the organic chain in 2006.

On the distribution of costs, while Fairtrade does explicitly take account of higher compliance costs for buyers, this is not the case in most schemes. Some voluntary standards have been accused of being unfair in the balance of the burden of compliance costs and risks being borne by the producer, compared to those for developed country buyers or retailers, with no guarantee of financial benefits for producers even if they meet the necessary standards.

Depending on the standard, producers bear different proportions of these costs. But in the vast majority of cases the producer and exporter has to bear a considerable amount. In FSC and Programme for the Endorsement of Forest Certification (PEFC) certification, the majority of costs have to be borne by forest owners and certification and audit costs can become a 'critical cost barrier' to individual forest owners (Oy, 2005). The International Institute for Environment and Development (IIED) carried out a study on GlobalG.A.P. certifying producers of vegetables in Kenya and found that producers paid 36% of initial costs of certification and 14% of recurrent costs. Despite total costs being shared between farms, exporters and external agencies, a considerable number of producers in 2006 dropped out of GlobalG.A.P. certification, partly as a consequence of complying with the complexities of the standard but also due to the high costs of compliance.

A possible explanation of this outcome lies in another dimension of value-chain analysis: the distribution of power relations across the chain. In conventional markets, most agriculture-based commodities currently covered by sustainability certifications show evidence of an accumulation of power by large retailers in what are called buyer-driven value chains. Voluntary standards are thus impacted by broader industry dynamics and supply and demand conditions. Voluntary standards have the potential to change the rules of participation and the distribution of authority to make these rules. Fairtrade, for example, aims at transforming trading structures and practices in favour of the poor and disadvantaged, setting minimum prices, establishing long-term contracts and providing advance payments. A number of case studies point to Fairtrade increasing economic empowerment and providing important opportunities for otherwise disadvantaged small-scale producers in specific communities. However, even when improved conditions can be guaranteed under certain standards, the proportion of produce sold as certified is not. This can leave producers investing in the reforms and certification costs but ultimately selling most of their produce as conventional commodities.

In forestry, certification is increasingly seen as a normal part of doing business by large retailers seeking to manage their risk and reputation. Retailers rarely pay price premiums, as they have to remain competitive with non-certified sellers and, instead, use their purchasing volumes to obtain leverage over the market. Large buyers often have more

bargaining power as they can switch between suppliers relatively easily, while producers tend to compete with each other for the preference of fewer buyers.

A more general issue raised by critics is the business model under which voluntary standards operate. Since certification and auditing costs can present a barrier to small and less sophisticated farmers, NGOs, development organizations and in some cases downstream organizations have stepped in to help with external funding. Standards organizations themselves today represent an important source of support for producers, with organizations such as FLO and the Marine Stewardship Council (MSC) spending 57% and 38% respectively of their total budgets on these activities. In turn, donations from charitable, governmental or private entities fund anywhere from 34%, in the case of the FSC, to 86% of MSC's budget. This reliance on external and discontinuous funding makes the system fragile unless this can be systematically recognized and integrated by the market framework.

SOCIAL AND ENVIRONMENTAL IMPACT OF VOLUNTARY STANDARDS

Behind most voluntary standards lies is an explicit or implicit intention to extend the impact of such trade beyond specific producers to environmental conditions and to local communities. This extended view covers different areas depending on the type of certification but tends to include one or more of five key aspects:

- Impact on the local community
- The role of cooperatives
- Improving work conditions
- Protecting the rights of indigenous communities
- Increasing gender equality
- Ensuring environment conservation and biodiversity.

Some voluntary certifications, such as Fairtrade, explicitly address the issue of local communities and stipulate that part of the Fairtrade premium should be invested in a 'communal fund for workers and farmers to improve their social, economic and environmental conditions'. These conditions appear to be implemented broadly across regions and types of commodities. On the other hand, preliminary studies analysing community-based indicators across multiple certifications such as the Committee on Sustainability Assessment (COSA) on coffee suggest that the actual impact in terms of community, organizational infrastructure and governance mechanisms varies with different schemes, but is not yet significant, probably because the scale of operations limits impact at producer level.

Cooperatives have long been perceived as instruments for development with an economic and social function for small farmers. They can contribute to, for example, economies of scale, improved competitiveness, cost-sharing possibilities and improved access to credit and buyers. By requiring small-holder producers to organize in cooperatives or other democratically controlled producer organizations, Fairtrade aims to use the potential benefits for farmers provided by this form of organization. Yet it remains unclear whether cooperatives improve producers' situations and whether they are effective in delivering services to coffee farmers. Mixed evidence suggests that, again, outcomes depend on producer-specific factors such as experience and external circumstances.

Several studies describe cases where cooperatives did not improve producers' economic and social situation. A possible explanation is 'their democratic structure, which may prevent efficient control of management and a system that requires the active participation of members, whereby free riding can become a problem, more complex administration procedures, lack of working capital and because of a difficult economic situation, less effect on social development' (Milford 2004).

An alternative to cooperatives is the use of hired labour. A number of studies have analysed the effects of voluntary standards on labour conditions and workers' rights and found a positive relationship between these issues and the implementation, for example, of the Ethical Trade Initiative standard. Still, most of the requirements of standards refer to permanent hires, while for many agricultural crops, seasonally hired labour represents an important part of the workforce. Requirements of most standards do not generally cover these labourers.

Another issue concerns protection of indigenous communities. Voluntary certifications such as FSC stipulate the protection of rights of indigenous communities in logging concessions. Studies are few and present mixed evidence. But on certain occasions policing practices in forests have been found to go too far and to intimidate indigenous communities (Forest Peoples Programme, 2006).

Progress on the issue of gender balance is also stipulated in several certification schemes, but again appears not to show uniform results. Taylor and Leigh (2005) did not find indications that gender was considered an important internal issue in Fairtrade communities where men dominated in decision-making about coffee production. Lyon argues that 'the Fairtrade network is falling short of its goal to promote gender equity'.

With regards to the conservation of biodiversity, several case studies have found a positive impact on protected areas. For example, in a study of a biosphere reserve in Central America, Hughell and Butterfield (2008) found that the average annual deforestation rate over five years in the core protected areas was 20 times higher than the

deforestation rate for the FSC-certified concessions, and that the incidence of fires on the FSC-certified forests had dropped from 6.5% to 0.1% over the same period. Visseren-Hamakers and Glasbergen (2006) find that the most valuable contribution of voluntary forest standards with regards to conservation 'has been filling the gap when governments were not willing and/or able to regulate'. However, another study analysing deforestation in the state of Acre in Brazil, showed a very small impact for certification compared to a control group of forest operators who already used local forest management practices (de Lima et al., 2008).

All in all, though most certifications have the intention to generate positive change beyond the individual participating producers, enacting this type of change and establishing a causal relationship between this and changes at the community level are at best difficult tasks, and have only started to be addressed relatively recently.

CREDIBILITY OF VOLUNTARY STANDARDS

An important question on voluntary standards concerns the relative legitimacy of these schemes. The growing role of voluntary standards, particularly with respect to environmental protection and food safety, has led governments and inter-governmental bodies to express concern about the legitimacy of these standards, in general and in relation to existing regulatory standards and regulatory making processes.

Henson and Humphrey (2009) propose an independent set of criteria to measure the relative legitimacy of specific standards including:

- The influence of value-chain stakeholders on the standards-setting process
- The extent to which the standard-setting process is transparent
- The inclusion of developing country interests
- The scientific foundation on which they are based.

On this basis, the authors cite the lack of representation of smaller firms and marginalized groups as a challenge to the legitimacy of some standards. Another key concern regarding the legitimacy of the standards is whether they are science-based, questioning whether private food-safety standards provide higher levels of protection than those covered by the SPS Agreement.

A self-regulating initiative, the Code of Good Practice for Setting Social and Environmental Standards, has been developed by the ISEAL[71] Alliance as a tool to assess the credibility of voluntary standards systems. The association has also formulated codes of good practice covering impact measurement and verification practices and providing guidance to the association members for the implementation of credible standards systems.

Another important indication of a standard's credibility is the way in which a company's conformity with the standard is assessed. To ensure credible verification, it is important that conformity assessment be carried out by an independent organization not involved in standard setting and with no interest in the relation of the supplier and the buyer. This is called third-party verification, or certification. The certification body should also demonstrate its capacity to provide certification services by complying with internationally accepted guidelines for such bodies. These guidelines are set by the International Organization for Standardization, the European Union and other institutions such as the International Accreditation Service.

GOVERNMENTAL ROLE IN VOLUNTARY STANDARDS

Governments can play various roles when it comes to voluntary standards. Carey and Guttenstein (2009) describe three possibilities. Governments, they suggest, are supporters when they provide financial incentives and technical assistance to suppliers to obtain certification. Facilitators are governments that provide resources to encourage the development of a standard such as the East African Organic Products Standards (EAOPS), facilitated by governments of the East African Community. A third category is governments as users or buyers, when governments certify their own operations, explicitly requiring products purchased or imported to be certified to a specific standard or to comply with a certain standard.

Since buyers play an important role in developing sustainable supply chains, governments are significant as buyers of products and services in general and, increasingly, of those with sustainability claims. The OECD estimated a weighted average of 20% of GDP was spent on public purchasing in member countries between 1990 and 1997. The European Commission estimates public procurement at roughly €2,500 billion, accounting for 16% of Europe's GDP. This represents a huge opportunity, but it also imposes a certain responsibility on public purchasing.

Do voluntary standards really make public procurement more sustainable or greener? A study carried out by PricewaterhouseCoopers, Significant and Ecofys concludes that this can be the case. It found that environmentally responsible public procurement by seven pioneering EU member countries contributed to an average reduction of CO_2 emissions of about 25% in 2006-2007.[72]

MAKING VOLUNTARY STANDARDS WORK

Overall, there is a lack of evidence as to the circumstances under which certification is an efficient and effective tool to foster sustainable development and to improve livelihoods. Research carried out thus far is contradictory, lacks commonly accepted approaches and has not yet been directed towards achieving more broadly valid results. Still, several practitioners and researchers seem to agree that voluntary standards are a potential tool to foster development.

Producers need to be able to understand the key elements of voluntary standards and have the tools to assess whether one or more of these certifications represents an opportunity to increase income and improve well-being. Information and simplified decision-making tools are an important element in improving the ability of producers, cooperatives and exporters to select the most appropriate option for their particular circumstances. Voluntary standards make most sense when they present an opportunity to become integrated into global value chains, enhance income predictability and provide upgrading opportunities. Therefore, the role of retailers, manufacturers and importers is crucial in determining the success of voluntary standards. Standards organizations have initiated a process that includes agreeing on mutual recognition and equivalence arrangements. The ISEAL Alliance also fosters the harmonization of standards. But further measures, such as certification bodies offering official recognition against a number of standards, need to be implemented to reduce the costs and other requirements of multiple certifications.

Institutions supporting producers need to increase efforts to support farmers and exporters when engaging in voluntary standards since the ability of exporters to meet requirements set by voluntary standards largely depends on enhanced capabilities at farm level. This should include training on good production practices, efficient and productive farm management, quality improvement, and general business skills, such as financial risk management. Institutional support should also back regional and national producer organizations in knowledge sharing, organizing transport, pooling volumes, improving infrastructure, including storage facilities, and enhancing strategic decision-making by providing critical market information. It is also important that producers and exporters gain easier access to: credit, national extension services, testing equipment and laboratory facilities. The establishment and enforcement of national standards linked to market requirements should be supported.

In addition to their supporting institutional role, governments are increasingly becoming involved as buyers of sustainability certified products. Besides its direct impact, government purchasing can also play an important signalling role. International initiatives such as the International Green Purchasing Network, the Marrakech Process on Sustainable Public Procurement and the United Nations Environment Programme (UNEP) foster responsible public procurement by developing guidelines, raising awareness, fostering exchange of experiences and organizing training.

Another potential role for government lies in the regulatory arena. Voluntary standards are outside WTO jurisdiction and the SPS or TBT agreements. Concerns about voluntary standards acting as barriers to trade have been voiced, as they become an important form of governance over global agricultural and food-supply chains. Thus, voluntary standards may impact on the transparency of regulatory processes if countries lack a forum for discussion and exchange of positions on these standards. Implications of this development for WTO and the future handling of voluntary standards are currently being discussed within the framework of the Standards and Trade Development Facility (STDF).

Consumer willingness to pay for additional product attributes indicating the application of fair, social or environmentally friendly principles provides an opportunity for producers and exporters. The importance of voluntary standards will increase as the circumstances under which these standards evolved remain. In some sectors, certified production and trade have already moved beyond the niche market and growth rates seen in the past decade are likely to continue.

Voluntary standards have the potential to boost exports from developing countries and lead to increased well-being for farmers and their communities. However, standards can also be a bust, by burdening exporters and hindering export opportunities and chances of benefiting from participation in the standards. It is important for producers to learn how to deal with voluntary standards and their implications in order to harness opportunities and to meet challenges.

An increased understanding of how voluntary standards influence developing countries' exports and the opportunities and the risks they entail will be crucial in designing policies and support mechanisms that enable producers and exporters to deal effectively with this new paradigm in trade. There are important questions surrounding the role of voluntary standards in facilitating access to premium markets, or acting as market barriers. Key issues need to be addressed both at the producer as well as at national and international institutional levels to ensure that standards become a boost rather than a bust for producers in developing countries.

COMPARATIVE ANALYSIS OF VOLUNTARY STANDARDS

Table 22: Comparative analysis of voluntary standards

	Type of standard	Products certified	Certification and monitoring	Compliance with int'l. norms and guidelines	Count of criteria for compliance		Geographic scope of standard operation[a]
4C Association	Product/ process specific	Green coffee supply chain	Verification service by independent third-party approved by 4C	ISEAL CGSSb ILO CLC[c] ILO 169 WHO (pesticides)[d]	Reqd[e] Soc[g]: 34 Env[h]: 27 Econ[i]: 4	Recd[f] Soc: 0 Env: 12 Econ: 9	Total: 21 countries LDCs: 5 Developing: 16 Developed: 0
Better Sugar Cane Initiative (BSI)	Product/ process specific	Sugar cane and its derived products incl. energy and biofuels	Standard for certification is being tested	ISEAL CGSS ISO 65 ILO CLC ILO 169 WHO (pesticides)	Req[d] Soc: 2 Env: 12 Econ: 0	Recd Soc: 23 Env: 23 Econ: 5	No operations have been BSI certified
Fairtrade (FLO)	Product/ process specific	Agriculture, composite and manufactured goods incl. bananas, cocoa, coffee, cotton, flowers, fresh fruits, honey, juices, rice, spice and herbs, sport balls, sugar, tea, wine, some composite products	Inspection and certification by FLOCERT, an independent certification company controlled by a third-party organization	ISEAL CGSS ISO 62, 65, 67 ILO CLC ILO Safe Work[j] ILO 155 ILO 169	Reqd Soc: 34 Env: 26 Econ:12	Recd Soc: 8 Env: 30 Econ: 4	Total: 64 countries LDCs: 19 Developing: 45 Developed: 0
Flower Label Program (FLP)	Product/ process specific	More than 300 varieties of roses and other cut flowers (dahlias, gerberas, peonies, tulips, etc.) and plants (leatherleaf ferns, tree ferns, ming ferns, etc.)	Auditing by independent audit organizations. Certification by FLP Certification Committee based on audit report.	ISO 65 ILO CLC ILO 155 WHO (pesticides)	Reqd Soc: 31 Env: 15 Econ: 0	Recd Soc: 0 Env: 2 Econ: 0	Total: 4 countries LDCs: 0 Developing: 4 Developed: 0
Forest Stewardship Council (FSC)	Product/ process specific	Forests, wood and paper products e.g., books, brochures, envelopes, journals, furniture, building materials (lumber, plywood, flooring, doors, etc), guitars, wood toys, cosmetics and kitchenware	Third-party certification and monitoring by certification bodies that need to be accredited	ISEAL CGSS ISO 61 and 65 ILO CLC ILO 155 ILO 169 ILO Safe Work WTO TBT Agmt[k] CBD[l]	Reqd Soc: 10 Env: 2 Econ: 0	Recd Soc: 12 Env: 33 Econ: 2	Total: 80 countries LDCs: 5 Developing: 45 Developed: 30

	Type of standard	Products certified	Certification and monitoring	Compliance with int'l. norms and guidelines	Count of criteria for compliance		Geographic scope of standard operation[a]
GlobalG.A.P.	Integrated[m] and product/ process specific	Fruits, vegetables, livestock, aquaculture production, plant propagation materials and compound feed manufacturing	Third-party certification and monitoring by certification bodies that need to be accredited	ILO CLC ILO 169 WHO (pesticides)	Reqd Soc: 14 Env: 29 Econ: 5	Recd Soc: 0 Env: 11 Econ: 1	Total: 98 countries LDCs: 10 Developing: 59 Developed: 29
Marine Aquarium Council (MAC)	Product/ process specific	Aquarium ornamental fish and marine habitat	Third-party certification and monitoring by certification bodies that need to be accredited	ISEAL CGSS ISO 65 ILO CLC 138 CITES[n] CBD	Reqd Soc: 4 Env: 1 Econ: 0	Recd Soc: 0 Env: 9 Econ: 0	Total: 5 countries LDCs: 0 Developing: 3 Developed: 2
Marine Stewardship Council (MSC)	Product/ process specific	Over 67 species incl. cockles, cod, halibut, hake, herring, hoki, lobster, mackerel, salmon, scallops, sea bass, shrimp, sole and tuna	Third-party certification and monitoring by certification bodies that need to be accredited	ISEAL CGSS	Reqd Soc: 3 Env: 6 Econ: 2	Recd Soc: 0 Env: 1 Econ: 1	Total: 38 countries LDCs: 1 Developing: 12 Developed: 25
Organic (IFOAM)	Product/ process specific	Crop production, livestock, wild products, fibre processing and aquaculture	Third-party certification and monitoring by certification bodies that need to be accredited.	ISEAL CGSS ISO 59, 60, 61, 62, 65, 66, 67, 68 and 14000 WHO (pesticides) Codex Alimentarius CITES CBD	Reqd Soc: 5 Env: 26 Econ: 3	Recd Soc: 13 Env: 4 Econ: 0	Total: 111 countries LDCs: 15 Developing: 66 Developed: 30
Programme for the Endorsement of Forest Certification Schemes (PEFC)	Product/ process specific	Forests, wood and paper products (e.g., furniture, building material, books) and non-wood forest products	Third-party certification and monitoring by certification bodies that need to be accredited.	ISO 65, 14000, 17000, 19000 ILO CLC ILO Safe Work ILO 169 CITES	Reqd Soc: 9 Env: 7 Econ: 0	Recd Soc: 11 Env: 10 Econ: 1	Total: 44 countries LDCs: 0 Developing: 16 Developed: 28

	Type of standard	Products certified	Certification and monitoring	Compliance with int'l. norms and guidelines	Count of criteria for compliance		Geographic scope of standard operation[a]
Rainforest Alliance (RA)	Product/ process specific	Forestry products (incl. timber, paper) and agriculture products incl. cocoa, coffee, banana, pineapple, flowers, tea, citrus, avocado, grapes, guava, kiwi, mango, passion fruit, plantain, rubber and vanilla	RA-trained specialists measure compliance and write a report evaluated by an independent/ voluntary expert committee. RA decides on awarding seal of approval.	ISEAL CGSS ISO 14000 ILO CLC ILO 169 WHO (pesticides) CITES CBD	Reqd Soc: 22 Env: 21 Econ: 2	Recd Soc: 14 Env: 16 Econ: 0	Total: 43 countries LDCs: 5 Developing: 32 Developed: 6
Roundtable on Sustainable Biofuels (RSB)	Product/ process specific	Production and processing of biofuel feedstock and raw materials. Production, use and transportation of liquid biofuels.	RSB certification system is undergoing pilot testing. In future, compliance will be demonstrated by on-site audit by a third-party accredited certification body.	ISEAL CGSS ISO 59, 60, 61, 62, 65, 66 ILO CLC WTO TBT Agmt	Reqd Soc: 26 Env: 32 Econ: 3	Recd Soc: 0 Env: 5 Econ: 0	Standard will be implemented with no geographical restrictions. Pilot project locations as of April 2010 (no certificates issued during this phase): Total: 9 countries LDCs: 0 Developing: 4 Developed: 5
Social Account-ability International (SAI)	Generic[o]	Not restricted to any particular sector, product group or service activity	Third-party certification and monitoring by certification bodies that need to be accredited	ISEAL CGSS ISO 59, 60, 61, 65 ILO CLC ILO 155 ILO Safe Work	Reqd Soc: 31 Env: 0 Econ: 1	Recd Soc: 3 Env: 0 Econ: 0	Total: 35 countries LDCs: 6 Developing: 19 Developed: 10
Sustainable Agriculture Network (SAN)	Product/ process specific	Forestry products incl. timber and paper and forest-derived products. Agriculture products incl. cocoa, coffee, banana, pineapple, flowers, tea, citrus, avocado, grapes, guava, kiwi, mango, passion fruit, plantain, rubber and vanilla.	(for agriculture products) Audit report prepared by independent/ voluntary expert committee. Certification by SAN Committee based on audit report.	ISEAL CGSS ILO CLC ILO 169 WHO (pesticides) CITES CBD	Reqd Soc: 11 Env: 22 Econ: 0	Recd Soc: 26 Env: 15 Econ: 2	Total: 39 countries LDCs: 7 Developing: 32 Developed: 0

	Type of standard	Products certified	Certification and monitoring	Compliance with int'l. norms and guidelines	Count of criteria for compliance		Geographic scope of standard operation[a]
Sustainable Forestry Initiative (SFI)	Product/ process specific	Forests, wood and paper products, including wood building, print and packaging products.	Third-party certification and monitoring by certification bodies that need to be accredited	ISO 62, 65 ILO CLC 29, 87, 98, 105, 111 and 182 ILO 169	Reqd Soc: 11 Env: 14 Econ: 0	Recd Soc: 0 Env: 0 Econ: 0	Total: 2 countries LDCs: 0 Developing: 0 Developed: 2
Union for Ethical BioTrade (UEBT)	Generic	Natural ingredients that are either collected from their native wild environment or harvested in the area where they are naturally distributed	(for trading members) After the Membership Committee approves application, candidate undergoes third-party audit by qualified verification body	ISEAL CGSS ISO 65 ILO CLC WHO (pesticides) CBD	Reqd Soc: 26 Env: 23 Econ: 7	Recd Soc: 0 Env: 0 Econ: 0	Total: 10 countries LDCs: 1 Developing: 6 Developed: 3
UTZ Certified	Product/ process specific	Coffee, cocoa and tea production and sourcing. UTZ Certified contributes to developing traceability systems in sectors incl. palm oil, soy, biofuels and sugar cane.	Third-party certification and monitoring by certification bodies that need to be approved by UTZ Certified	ISEAL CGSS ILO CLC 29, 87, 98, 105, 100, 111 and 138	Reqd Soc: 36 Env: 29 Econ: 6	Recd Soc: 1 Env: 3 Econ: 1	Total: 21 countries LDCs: 5 Developing: 16 Developed: 0

Notes:

(a) Countries of operation refer to those countries where standard bodies certify producers/exporters. Country classification based on UN Statistics Division categorization. Available at: http://unstats.un.org/unsd/methods/m49/m49regin.htm.
(b) ISEAL CGSS: ISEAL Code of good standard setting
(c) ILO CLC: ILO Core Labour Convention (No. 29, 87, 98, 100, 105, 111, 138 and 182)
(d) WHO (pesticides): WHO classification of pesticides
(e) Reqd: Required
(f) Recd: Recommended
(g) Soc: Social criteria
(h) Env: Environmental criteria
(i) Econ: Economic criteria
(j) ILO Safe Work: ILO Code of Safe Work
(k) WTO TBT Agmt: WTO Agreement on Technical Barriers to Trade
(l) CBD: Convention on Biological Diversity
(m) Certification of entire companies
(n) CITES: Convention on International Trade in Endangered Species of Wild Flora and Fauna
(o) Not limited to any particular product or process


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CHAPTER V

THE TRADE VULNERABILITY OF EMERGING AND DEVELOPING COUNTRIES

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THE TRADE VULNERABILITY OF EMERGING AND DEVELOPING COUNTRIES

Economic vulnerability arises when a country is prone to a sudden and prolonged break in its growth pattern (crisis); this needs to be distinguished from the mere notion of economic shock. It is important to ascertain whether some trigger points (such as large account deficits) are merely precursor signs of shocks or whether they announce a crisis. Most countries do indeed experience major shocks – to their terms of trade for example – but not all shocks materialize in a crisis. However, it is important to note that dependence and interdependence do not equate with economic vulnerability. Trade linkages per se do not render the trading countries more vulnerable. It is argued in this section that it is the type of trade structure (or export structure) that makes a country vulnerable rather than its mere openness through trade.

Vulnerability is analysed in this report with the help of indicators that are normally found in the literature on economic vulnerability, such as export price instability and export concentration, combined with other indicators. This section assesses economic vulnerability over the 1995-2008 period for LDCs, other developing countries and emerging economies.

The modern wave of globalization has created a multi-polar and interdependent world. Increasing balanced trade linkages between countries lead to mutual dependence (i.e., interdependence). Linkages can be represented by inter- or intra-industry trade flows and by foreign direct investment (FDI) bilateral flows in the same or different industries and across countries. Dependence implies the disengagement by an economy from an entire production activity, which is only of minor importance to this economy (Andreosso-O'Callaghan, 2007), with the degree of 'importance of an economic activity' being assessed and measured through input-output analysis (see for example Schultz, 1977, and Sonis et al. (2000), for an elaboration of the notion of 'key industry'). For example, during the 'knowledge economy era', the United States economy was dependent on China in the area of consumer goods industries; this does not, understandably, make the United States vulnerable.

Vulnerability arises only when dependence is beyond the control of national policy. This is the case of countries with a very concentrated export structure (mono-agricultural exporters for LDCs) and when dependence permeates industries or sectors of economic activity that are not minor, but that are 'key' sectors in the case of emerging economies. Table 23 gives an insight into the dependence of emerging economies in high-tech products.

Table 23: Trade balance/GDP ratio (in %; calculated with respect to the world)

	Year	
	1996	2008
Emerging economies (total high tech)	-3.5	-2.1
China (total high tech)	-2.3	4.7

Source: IMF World Economic Outlook dataset April 2010.

The table shows the decreasing dependence of the group of emerging countries (and of China therein) on high-tech products vis-à-vis the rest of the world. This suggests a specialization up the value-chain for these countries, and a potentially greater ability to withstand shocks. Hitherto the study of economic vulnerability has been widely applied to the case of low-income and commodity-dependent countries (Guillaumont, 1999 and 2004). In the same vein, the concept has been used to describe and analyse the challenges facing small island developing states as well as small open economies, both developing and developed. The recent study by Shafaeddin (2005) discusses the case of developing countries' increased vulnerability in the aftermath of trade liberalization. Dependence on a narrow range of exports, combined with a lack of export diversification, exacerbates vulnerability associated with economic openness.

Briguglio et al. (2009: 229) define vulnerability as 'the exposure of an economy to exogenous shocks, arising out of economic openness, while economic resilience is defined as the policy-induced ability of an economy to withstand or recover from the effects of such shocks.'

TRADITIONAL VULNERABILITY INDICATORS: EXPORT DIVERSIFICATION AND PRICE INSTABILITY

Export diversification is measured by the inverse of the Herfindahl-Hirschman Index (HHI), a commonly accepted measure of market concentration, calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers, in this case, the share of a specific export product in the total exports (n products) of a given country or group of countries. This ratio is calculated for each individual country belonging to any of the three groups (a table for all countries is presented in the Statistical Annex to this report). The results show for example that some LDCs such as Madagascar, Djibouti, Gambia or Nepal have managed to diversify their export structure over the period under study (1996-2008), whereas others (Haiti and Guinea-Bissau) have tended to have an increasingly concentrated export structure. For most LDCs however, export concentration is very high (conversely export diversification is very low); this is denoted by a low inverse HHI over the entire period. Countries such as Angola, Burkina Faso, Chad Guinea-Bissau or Mali still rely heavily on only a few export items for their foreign exchange earnings. Emerging countries display on average higher export diversification indices (with the exception of Kuwait, Oman and Qatar, all three heavily dependent upon energy exports).

Table 24 below displays the weighted HHI export diversification indices for the three aggregate country groups. It is clear that the group of emerging economies enjoys a much more diversified export structure than either the LDCs or the other developing countries. This more diversified export structure allows the emerging countries to be less subject to a world-wide contraction in one particular market.

Table 24: Export diversification per group of countries: emerging economies, LDCs and other developing countries (selected years, 1996–2008)

	1995	2000	2008
Emerging economies	76.24	53.88	33.89
LDCs	2.89	8.56	3.1
Other developing countries	6.07	3.46	2.85

Source: ITC calculations based on COMTRADE data.

Another traditional trade-related indicator measures the instability of exports and imports over time.

Table 25 summarizes this indicator for the three groups of countries over the period 1996-2008. For all three groups, price instability is higher in the case of exports, implying a rather high volatility of foreign exchange derived from trade.

Table 25: Price instability of trade, emerging countries, LDCs and other developing countries (selected years, 1996–2008)

	Exports	Imports
Emerging economies	22.66	14.32
LDCs	66.30	3.80
Other developing countries	74.82	9.03

Source: ITC calculations based on COMTRADE data.

Again a contrasting picture opposes the emerging countries and the other two groups of countries. The emerging countries enjoy overall lower price instability in trade, the other two groups of countries are clearly price-takers on export markets, such as for primary commodities and energy. In particular, export earnings for the other developing countries have been substantially volatile over the period considered. This is the case for Iraq, Kazakhstan and Azerbaijan, results that are in perfect contrast to stable export prices of developed economies such as the European Union and the United States.

OTHER VULNERABILITY INDICATORS: GDP-MINUS-PRIVATE CONSUMPTION AND GRUBEL-LLOYD INDEX

Here we chose a number of indicators that readily inform us of the relative healthiness and sustainability of an economy. This second group of indicators informs on the likelihood of countries to cushion themselves against shocks and crises because they relate to the resources that are available to these countries.

Data on GDP-minus-private consumption inform on the ability of a country to use the wealth it creates to engage favourably in trade (net trade component), to build up financial reserves in the form of savings (S component), and to spend on public projects such as infrastructure or education (G component).[73] **Table 26** shows how this indicator has evolved over time for the three groups of countries.

Table 26: GDP – Private consumption group of countries, emerging economies, LDCs and other developing countries (selected years, 1995–2008, $ billion)

	1995	2000	2005	2008
Emerging economies	1 701	2 042	3 784	6 432
LDCs	22.4	33.8	61.3	93.0
Other developing countries	93.0	119.0	258.1	321.1

Source: World Development Indicators 2009, World Bank, Washington.

The staggering gap between the emerging countries and the other two groups of countries can be noted. The increase of this indicator has been roughly the same for all three groups of countries. However, some countries in the 'other developing group' have seen an impressive increase in this indicator. This is the case for Armenia, Malawi and Mozambique. All LDCs, with the exception of Burundi, Central African Republic and Comoros, managed to experience an increase in this indicator during the period under analysis, even though it was small in some cases (Mauritius for example). For some countries in this group, the increase in GDP minus private consumption was rather impressive (Chad and Equatorial Guinea). This might augur the start of a new period of catching up for the African continent. In 2008, GDP-private consumption was roughly nine times greater than in 1995; this compares with only a threefold increase for the other two groups of countries.

With regard to trade-related indicators, an economy that is narrowly specialized in a given product group (narrowly defined) will engage in inter-industry trade with the rest of the world. In this case, intra-industry trade (IIT) is low, dependency is high and vulnerability eventually increases. Conversely, if IIT is high (narrowly defined), vulnerability is low. Grubel-Lloyd (GL) indices, which measure the similarity of economic trends within an industrial sector across countries, are used for the analysis of IIT patterns between any economy and the rest of the world. The results for the three groups of countries are depicted in table 27. In the case of the emerging economies, IIT has increased over time and it is relatively high (at par with the index for developed economies such as the United States or the EU). This contrasts with relatively low and declining IIT indices for the other two groups of countries; IIT indices are lower for the LDCs than for the other developing countries over the period. In the case of emerging countries, IIT is relatively low for energy dependent countries such as Qatar (0.05 in 2008), Oman (0.16) and the Russian Federation (0.17). For the LDCs and for other developing countries, vulnerability as appraised by this indicator is quite high (low IIT index), vulnerability is particularly high for Angola (0.03 in 2008), Burkina Faso (0.07), Equatorial Guinea (0.05), Guinea-Bissau (0.03), Maldives and Sudan (0.01), as well as for Iraq (0.01) and Turkmenistan (0.03) respectively. Again, these low figures mirror the dependence of these countries either on energy products or on primary commodities, and a parallel lack of diversification in these countries' productive and export structures.

Table 27: GL indices per group of countries, emerging economies, LDCs and other developing countries (selected years, 1996–2008)

	1996	2000	2008
Emerging economies	0.68	0.72	0.76
LDCs	0.30	0.33	0.28
Other developing countries	0.36	0.35	0.34

Source: ITC calculations based on COMTRADE data.

By going one step further, we compute GL indices for the group of high-tech or 'key' industries, namely chemicals, machinery (including computers) and motor vehicles, given their importance in emerging economies (for a list of high-tech industries, see below). Table 28 shows the high and growing incidence of IIT in high-tech products for the group of emerging countries. By contrast, the index decreased during the period for LDCs, whereas it only marginally increased in the case of other developing countries.

Table 28: Intra-industry trade (IIT) in high-tech industries (1996-2008)

GL ratio	1996	2000	2008
Emerging economies / world	0.70	0.78	0.77
Least developed countries/world	0.13	0.14	0.09
Other developing countries/world	0.17	0.24	0.23

Source: IMF World Economic Outlook dataset April 2010.

These further results substantiate the fact that emerging countries tend to be able to trade competitively with the rest of the world by increasingly engaging in industries that were traditionally controlled by the developed countries. By contrast, developing countries (and in

particular LDCs) still engage primarily in Ricardian-type (one-way) trade by supplying the rest of the world with low-value-added manufacturing commodities as well as primary products. These results indicate the following stylized facts.

First, export diversification is generally higher for the emerging economies than it is for the other two groups of countries over the period, although some LDCs, such as Bangladesh, have been able to successfully diversify their export structure over time, making them less vulnerable. A high export concentration ratio increases economic vulnerability. Indeed, countries dependent on only a few commodities for their export earnings are more prone to being destabilized by a sudden contraction in a particular market. Conversely, countries with a more diversified export structure can more easily shift resources away from contracting to expanding markets.

Second, emerging economies enjoy a lower degree of price instability for exports over the time period analysed here, compared with the other two groups, and in particular compared with the 'other developing countries' category. With more stable export earnings, emerging economies are less vulnerable than the other two groups.

Third, the growth of GDP-private consumption has been roughly the same across the three groups. In the case of some countries of the LDCs, this indicator has either grown moderately or has fallen.

Finally, intra-industry trade, measured by the standard GL indices over time, is relatively high (and increasing) for the emerging economies, whereas it is low and decreasing for the other two groups of countries. Here again, low IIT indices imply Ricardian-type industrialization and export specialization patterns and therefore a relatively vulnerable position. It should be noted that, although the emerging economies do have an industrial and export structure that allows them to withstand economic shocks and crises, some countries in this group also display low IIT indices and low export diversification indices (Qatar, Oman and the Russian Federation).

Economic vulnerability in a wider sense would also look at savings ratios; these are higher and rising for emerging economies; they are stable for LDCs and slightly declining for other developing countries. It seems therefore that there has been an increasing savings gap between emerging economies on the one hand and the other two groups on the other, giving emerging economies a greater ability to use their financial reserves in times of economic downturn or crises.

It follows from the analysis that the appropriate policy measures would encompass a number of actions in different areas including, but not limited to, trade policy. Export diversification, increasing IIT and finding greater resources for cushioning the adverse external effects imply a number of policy measures in other areas such as industrial and technology policy, financial policy and educational policy.

STATISTICAL ANNEX

STATISTICAL ANNEX

In this annex a number of detailed tables on trade are presented to further elaborate trends observed and conclusions reached within this report. In most cases methodologies have been elaborated within the relevant chapters of the report.

TECHNICAL NOTES

EXPORT DIVERSIFICATION PROFILE

A diversified country is understood to be less vulnerable to adverse terms of trade shocks by stabilizing exports revenues (Ghos and Ostry, 1994). Export diversification can take two main forms, (i) product diversification and (ii) market diversification. Each form can be driven through two other channels: expansion of a set of new items (extensive margin) or upgrading the quantity of the existing items (intensive margin).

In this section we will give one of the definitions to measure the export diversification derived from a concentration index (Herfindhal Index) and a ranking of all observed countries by their level of export diversification over a period of time will be presented. The higher the number, the more diversified the exports. It can also measure the size of items to which country's exports are dispersed. Therefore it shows an indication of an exporting country's vulnerability to economic changes in a small number of product markets.

METHODOLOGY

THE HERFINDHAL INDEX (HI)

The Herfindhal index (HI) is equal to the sum of the squared shares of the exporting products or exporting destinations in a country's total exports. The HI is commonly used to measure a market or an industry concentration. Higher index values indicate more diversification on the number of trade products, trade partners, etc.

How to calculate it?

Equation 1: Product diversification index

$$HI^{t}_{Pc} = \sum_{i} \left(\frac{\sum_{m} X^{t}_{icm}}{\sum_{m} X^{t}_{.cm}} \right)^{2}$$

Equation 2: Market-destination diversification index

$$HI^{t}_{Mc} = \sum_{m} \left(\frac{\sum_{i} X^{t}_{icm}}{\sum_{i} X^{t}_{ic.}} \right)^{2}$$

Where c is the country of interest, market destination m for the product i and exports value between c and m on the product i. While the nominator corresponds to the total exports from c to m during the period of time t, the denominator corresponds to the total exports of the product i from the country c to world for the period of time t.

LIMITATIONS

This index has the advantage of being simple to calculate and is solely relying on export values. However, making cross-country comparisons can be problematic as the index does not consider the size of the economies, supposing all the export-destinations have the same size. Subsequently, dissimilar exporters, either in terms of number of partners, share per partner or overall value, may receive similar scores. The following example helps to illustrate this situation.

	Country 1		Country 2	
	Exports ($ '000)	Share (%)	Exports ($ '000)	Share (%)
Destination A	50	0.5	60'000	0.60
Destination B	50	0.5	38'000	0.38
Destination C	0	0.0	2'000	0.02
HI		5'000		5'048

Data sources

The trade data is from on the ITC-Trade Map datasets, from 1996 to 2008, with all developing countries analysed.

INTRA-INDUSTRY TRADE

To measure intra-industry trade we utilize the Grubel-Lloyd Index, measuring if a country simultaneously exports and imports similar types of goods (at various stages of processing) that are within the same sector. The index ranges between zero and one. A higher value (closer to one) indicates a higher degree of trade between industries in the same sector. A low value (close to zero) indicates a country's trade with international markets is unidirectional.

METHODOLOGY

We define intra-industry trade using the Grubel-Lloyd Index (GLI) as one minus the ratio of the absolute value of the trade deficit in a given sector to the total trade in the same sector. GLI is computed as follow:

Equation 3: Grubel-Lloyd Index

$$GLI_{js} = \mathbf{1} - \left(\frac{|\sum_i X_{js_i} - \sum_i M_{js_i}|}{\sum_i X_{js_i} + \sum_i M_{js_i}} \right)$$

Where:

X_{js_i} and M_{js_i} represents exports and imports of industry i from sector s in country j to world and for a given period of years.

The index is subject to aggregation bias across and within the sectors. This can be inherent to the type of classification used: the industries or product groups are lumped together for a same sector (whether from HS or SITC classification); on the other hand there are structural differences across sectors. The magnitude of the index decreases from an aggregated level to more detailed levels of aggregation. In the calculations presented below a definition of the high-tech sector has been used to highlight which countries are most dependent, or vulnerable, to supply and demand conditions in high value-added sectors.[74]

INTERPRETATION

There are two interpretations of the index that provide further insight into the topics of this report, particularly the issue of vulnerability from trade. First, high index values indicate a high degree of interdependence between countries in the specific sector calculated. This is because as the value of exports and the value of imports come closer to each other so will the value of the right hand side of our index approach zero, with the result being a maximum index value of 1. Conversely, as either exports or imports outpace the other, with an extreme being only exports or only imports, the index will approach 0. This measure of interdependence in trade can be used to also draw conclusions about the relative trade vulnerability of economies; those with low GLI values are highly dependent either on the supply or demand of global markets, and thus presumed as more vulnerable than countries with high GLI values, who have relative level of balance in national supply and demand in that selected sector (assuming sectors or industries are adequately defined). Notably, because of the method of calculation (taking the absolute value of the trade balance in the numerator) no conclusion can be reached on the direction of vulnerability from strictly the value of the index; this requires assessment of the sector trade balance as well as the relative risk of supply or demand shocks in the given sector.

DATA SOURCES

Results are based on ITC staff calculations utilizing the COMTRADE database.

PRICE INSTABILITY IN TRADE

METHODOLOGY

To calculate price instability in trade two datasets are drawn upon. First, the IMF's Primary Commodity Prices dataset is used to calculate price volatility, and second, ITC's Trade Map database is used to calculate shares of each product (with price data available) in a given country's import and export baskets. The IMF database contains monthly price data on 54 primary commodities from 1980 to present. For comparability across goods, monthly prices for each good are indexed with a base period of January 1996, and the average deviation for each product is calculated between January 1996 and May 2010. These 54 products are then matched to 64 codes in the Harmonized System (ranging in scale from the 2- to 6-digit level), with the aim of matching products as closely as possible. Inevitably, some direct price measures provided by the IMF are more specific than those codes available in the Harmonized System, and in some cases multiple HS codes are applicable to a single IMF price measure. Where the IMF differentiates several product types within a broad overall category (i.e., seafood, natural gas, sugar, coffee, wool, wood) for which a similar level of disaggregation is not possible in the Harmonized System, these products' price deviations are averaged together into a overall average deviation for that group of products. In the end, 39 product price deviations are coupled with the import and export shares of 64 HS codes for each country between 2004-2008, with 11 products having more than 1 HS code. The period used from price deviations and export shares are different to maximize relevance – price data is only used for the prior 15 years, and not longer, and included the most recent periods to ensure that large shifts in prices over time are measured, but that steady growth in prices that occurs over time does not overly influence the measure. Shares of trade are based on the four most recent complete years available to ensure that the conclusions reached are applicable to countries' current export patterns, and not to their export patterns in prior decades (as some developed countries have had significant changes in their export baskets over time). For each product the share of trade is multiplied by its average price deviation, and then summed for all 39 product groups, producing one measure for import and one for export price volatility for each country or aggregate group of countries (see equation 4).

Equation 4: Price instability in trade

$$PI_i = \sum_j x_j \times pd_j$$

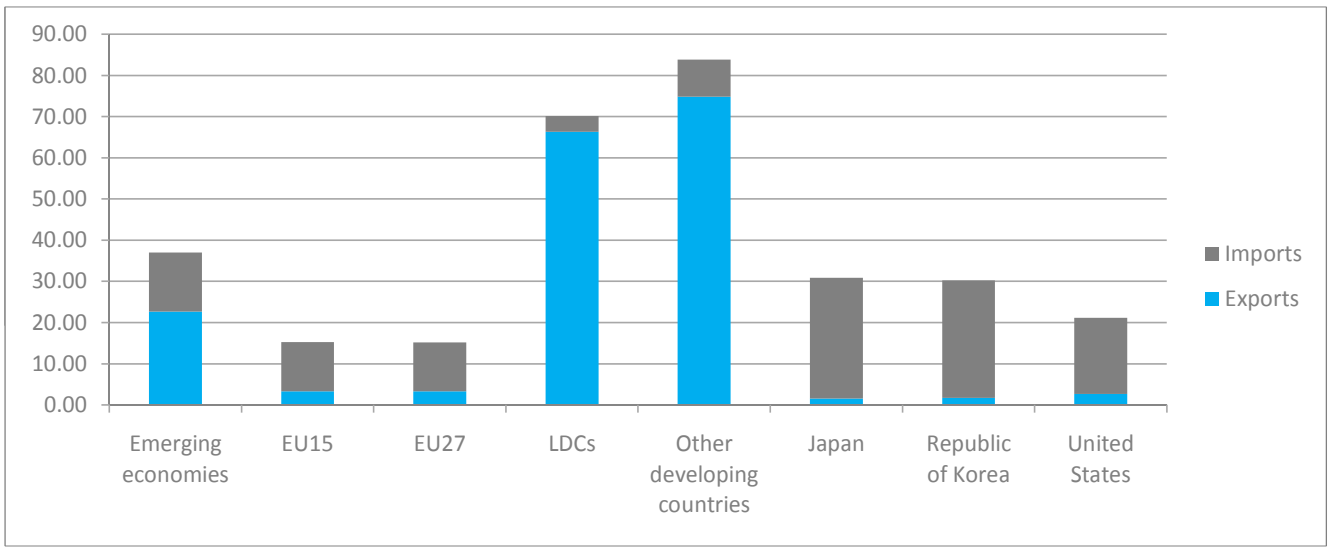
PI_i – price instability of trade, either exports or imports, for country i

x_j – the share of trade (either imports or exports) for country i composed of goods j

pd_j – the average price deviation of good j over a chosen time, indexed with the first period for each good equal to 100

INTERPRETATION

Figure 40: Price instability in trade for major traders (lower is better)



Source: ITC.

Results of the calculation confirm a trend of high price instability in LDC and other developing country export baskets, and a concurrently high price-instability in developed country import baskets. Presumably this can be attributed primarily to the price of crude oil. The commodity had the most volatility in historic prices, and in value terms dominates the aggregate exports of LDCs and other developing countries and the imports of developed economies. This is also seen in individual results, with Iraq, Angola, Nigeria, Equatorial Guinea and Libyan Arab Jamahiriya at the top five price-instable countries, all primarily due to their export instability.

Relatively higher price stability is found in emerging economies compared to other developing countries and LDCs. This may be due to price stability in exports, or more likely due to a relative dominance of manufactured goods in trade, which do not impact the price instability measure (the IMF database includes prices for only primary commodities). Countries with the lowest export instability include Antigua and Barbuda, Israel, Lesotho, Cayman Islands and Comoros.

PRODUCT AND MARKET DIVERSIFICATION

Table 29: Global ranking of product and market diversification (2008)

	Exported products (HS 6)		Export destinations			Inverse Herfindahl index	
Economy	(within 100%)	(within 75%)	(within 100%)	(within 75%)	Total exports ($)	Exported products	Export destinations
Italy	4 613	563	202	23	537 075 481	216	21
Germany	4 546	486	207	16	1 466 137 703	111	23
China	4 559	463	201	19	1 430 693 328	157	15
France	4 544	442	206	18	594 496 870	142	17
Spain	4 628	434	205	14	279 229 914	106	14
United States	4 735	419	205	18	1 299 922 049	140	14
Belgium	4 613	385	205	10	477 185 982	76	10
Austria	4 382	371	201	14	172 226 039	220	10
Poland	4 431	321	195	13	171 858 303	178	11
United Kingdom	4 635	309	206	16	455 594 594	67	17
Denmark	4 389	301	205	13	115 658 980	126	13
Czech Republic	4 439	300	191	10	146 085 381	175	8
Netherlands	4 578	294	206	11	545 852 265	27	11
Sweden	4 391	260	202	14	183 878 890	79	20
Slovenia	3 959	251	170	11	29 252 015	104	13
Turkey	4 302	241	198	25	132 000 979	80	28
Portugal	4 066	222	188	8	55 939 626	72	9
Serbia and Montenegro	3 722	221	149	11	11 641 820	173	15
Switzerland	4 432	220	206	14	200 613 002	49	14
Japan	4 440	217	204	14	781 411 967	72	13
India	4 780	214	205	24	181 859 014	25	24
Romania	3 742	196	176	14	49 538 265	81	14
Greece	3 942	195	184	16	25 508 948	64	20
Thailand	4 259	186	203	17	175 905 980	75	19
Chinese Taipei	4 516	183	203	10	255 054 207	51	9
Croatia	3 628	183	155	10	14 123 161	61	11
Latvia	3 320	183	169	10	9 280 239	89	13
Estonia	3 341	182	159	9	13 697 561	61	11
Bulgaria	3 696	178	179	16	22 477 124	39	20
Finland	3 842	176	198	15	96 895 169	54	20
Lithuania	3 763	175	162	12	23 769 277	18	15
Slovakia	2 999	158	174	9	70 188 203	43	12
Canada	4 573	157	201	0	455 716 447	31	2
Hong Kong (SAR China)	4 206	147	188	7	370 241 370	44	4

Economy	Exported products (HS 6)		Export destinations			Inverse Herfindahl index	
	(within 100%)	(within 75%)	(within 100%)	(within 75%)	Total exports ($)	Exported products	Export destinations
Hungary	3 121	146	182	12	108 211 162	47	11
Mexico	4 226	143	186	0	291 263 794	29	2
Lebanon	2 827	127	164	19	3 477 898	47	22
Republic of Korea	4 272	121	204	20	422 002 872	41	14
Indonesia	4 008	115	203	11	137 019 674	34	12
Viet Nam	3 320	115	146	13	62 685 233	28	13
Ukraine	3 710	112	179	24	66 951 797	71	14
Malaysia	4 404	106	204	11	198 846 653	32	14
Bosnia and Herzegovina	2 671	105	112	5	5 020 793	59	9
South Africa	4 422	104	196	18	73 963 643	55	21
Brazil	4 149	96	198	21	197 944 097	55	21
Luxembourg	3 187	91	175	7	17 659 486	68	8
New Zealand	3 768	89	199	16	30 577 256	47	12
Republic of Moldova	1 772	88	102	7	1 591 306	67	9
Guatemala	3 089	83	116	5	7 736 271	44	5
Democratic People's Republic of Korea	2 199	78	112	9	2 191 952	38	7
Singapore	4 376	74	138	12	338 175 176	14	16
Tunisia	2 675	74	154	7	19 319 807	32	7
Pakistan	2 862	72	192	18	20 278 525	39	16
the former Yugoslav Republic of Macedonia	2 148	71	87	8	3 825 893	47	11
Sri Lanka	2 149	70	183	14	8 176 314	45	11
Palestine	965	70	52	0	558 446	44	1
Jordan	2 497	68	143	9	7 781 676	36	11
Kenya	3 070	68	157	15	5 000 638	21	18
Argentina	3 756	65	176	19	70 019 716	34	16
El Salvador	2 279	64	104	3	4 548 923	24	4
Andorra	1 268	63	92	2	175 601	28	4
Israel	3 114	60	191	13	61 337 485	13	8
Tokelau	435	56	55	5	21 416	40	7
Morocco	2 698	55	157	13	20 305 315	23	11
Costa Rica	2 494	55	138	10	9 744 314	25	6
Belarus	2 831	54	134	6	32 902 614	8	7
Nepal	1 313	54	100	2	961 678	42	2
Colombia	3 298	49	173	11	37 625 488	11	6
Egypt	2 738	49	166	19	26 223 593	15	25
Ireland	3 545	44	192	7	127 111 129	29	9

Economy	Exported products (HS 6)		Export destinations			Inverse Herfindahl index	
	(within 100%)	(within 75%)	(within 100%)	(within 75%)	Total exports ($)	Exported products	Export destinations
Dominican Republic	1 465	44	133	3	5 617 318	37	3
Albania	1 232	44	72	2	1 354 895	39	2
Macao (SAR China)	2 030	40	93	3	1 998 066	25	4
Uruguay	1 540	38	163	15	5 941 809	25	17
Cyprus	1 410	38	156	15	1 713 204	17	10
Philippines	2 376	31	180	7	49 077 457	16	11
Honduras	2 044	31	114	3	6 671 093	25	2
United Republic of Tanzania	1 860	30	146	12	3 120 943	18	13
Uganda	1 731	29	122	10	1 724 145	16	15
Barbados	1 361	29	115	6	453 954	15	7
Turks and Caicos Islands	397	29	57	5	31 912	22	6
Swaziland	1 509	28	109	15	973 159	18	18
Netherlands Antilles	835	28	78	3	146 174	22	5
Zimbabwe	1 248	27	115	6	1 693 801	27	5
Nicaragua	1 393	26	94	4	2 537 448	24	5
Senegal	1 644	26	134	8	2 170 373	8	9
Australia	4 329	25	199	9	186 852 973	13	11
Madagascar	1 499	25	129	3	1 666 309	21	4
Bouvet Island	142	25	19	0	41 048	7	1
Bangladesh	1 813	24	129	8	16 666 796	16	9
Chile	3 174	21	155	12	69 084 695	8	15
Fiji	1 208	21	66	3	685 361	12	6
Niue	208	21	35	1	9 518	16	2
Mauritius	2 202	20	138	6	2 401 205	15	7
Georgia	1 276	20	91	8	1 497 316	19	12
Gambia	232	19	40	6	13 920	15	9
Panama	490	18	80	6	1 144 732	21	5
Peru	2 870	15	160	11	31 162 260	13	13
Bahrain	1 603	15	107	17	7 326 211	6	24
Malta	1 362	15	145	8	3 028 391	6	13
Kyrgyzstan	1 260	15	66	4	1 617 490	6	7
Gibraltar	590	15	72	8	229 146	15	12
Eritrea	255	15	64	6	24 399	13	7
Namibia	2 739	14	139	6	4 728 828	11	7
Antigua and Barbuda	807	13	87	4	370 872	7	6
Côte d'Ivoire	1 369	12	138	14	9 778 633	9	16
Uzbekistan	1 134	12	87	6	7 176 041	8	7
Cambodia	577	12	135	4	4 358 149	11	4

Economy	Exported products (HS 6)		Export destinations			Inverse Herfindahl index	
	(within 100%)	(within 75%)	(within 100%)	(within 75%)	Total exports ($)	Exported products	Export destinations
Tuvalu	114	12	38	2	3 756	6	4
Iceland	1250	11	124	7	5 355 185	6	6
Lao People's Democratic Republic	866	11	90	3	1 407 675	6	4
Faroe Islands	292	11	57	8	852 087	11	10
Djibouti	271	11	72	7	132 296	12	11
Ethiopia	970	10	137	13	1 601 623	7	20
Armenia	1149	10	79	6	1 054 932	11	9
St. Vincent and the Grenadines	393	10	31	4	52 159	13	7
Tonga	121	10	37	4	16 976	13	6
Myanmar	1031	9	94	2	6 387 474	4	3
Sierra Leone	886	9	102	6	357 297	9	7
Somalia	297	9	60	3	174 182	12	4
Grenada	308	9	39	7	30 495	10	9
Other developing countries	4664	8	174	13	472 306 689	3	17
Norway	3690	8	195	7	167 811 378	5	8
Bahamas	942	8	77	2	701 462	9	2
Guam	330	8	48	3	84 285	9	4
Russian Federation	3964	7	173	14	467 993 225	6	16
Haiti	543	7	89	1	657 388	6	2
Cape Verde	311	7	65	2	51 412	6	4
Kazakhstan	2070	6	117	9	71 171 720	3	11
Paraguay	980	6	112	8	4 389 928	6	10
Togo	1073	6	73	6	1 765 997	5	4
Guyana	722	6	87	7	830 043	8	8
Afghanistan	33	6	34	2	540 068	7	3
Dominica	201	6	24	5	39 957	8	9
Anguilla	193	6	21	1	11 458	5	3
Bolivia	735	5	88	5	6 899 237	4	4
Papua New Guinea	523	5	72	5	6 024 974	7	5
Mongolia	632	5	72	1	2 055 406	5	2
Tajikistan	586	5	69	7	936 090	4	9
Benin	384	5	70	10	682 557	7	12
American Samoa	410	5	63	3	70 762	3	3
United Arab Emirates	4247	4	181	3	209 999 856	5	5
Trinidad and Tobago	2004	4	118	8	18 650 171	6	4
Ecuador	2011	4	140	6	18 510 469	3	4
Syrian Arab Republic	2793	4	119	8	8 227 059	3	10

Economy	Exported products (HS 6)		Export destinations			Inverse Herfindahl index	
	(within 100%)	(within 75%)	(within 100%)	(within 75%)	Total exports ($)	Exported products	Export destinations
Cameroon	1 075	4	114	6	5 370 998	3	9
Ghana	1 202	4	137	7	4 032 753	4	5
Democratic Republic of the Congo	694	4	86	3	3 732 644	7	4
Cuba	828	4	117	7	3 134 072	6	6
Liberia	371	4	83	6	1 120 574	7	8
Lesotho	155	4	59	1	668 562	5	2
Niger	466	4	73	4	503 071	3	6
Rwanda	501	4	79	5	398 319	6	6
Central African Republic	288	4	72	8	170 226	7	12
Comoros	109	4	50	4	36 951	7	6
Kiribati	96	4	38	4	16 695	4	5
Zambia	1 810	3	111	4	5 098 575	4	4
Mozambique	1 194	3	106	2	2 653 199	3	3
Jamaica	1256	3	97	5	2 438 615	3	5
Malawi	794	3	113	14	878 859	4	18
Greenland	392	3	55	2	762 496	5	2
Belize	102	3	41	2	295 057	5	4
Maldives	29	3	31	3	126 363	4	4
Federated States of Micronesia	95	3	28	1	28 557	3	2
Algeria	788	2	102	6	79 297 542	3	9
Oman	1 272	2	149	5	37 719 108	3	7
Botswana	1 998	2	111	1	4 837 877	3	3
Mauritania	30	2	44	5	1 627 121	3	7
Guinea	255	2	71	5	1 486 832	4	7
Bermuda	353	2	72	3	515 355	5	6
Cayman Islands	322	2	66	2	508 488	4	4
Burkina Faso	519	2	72	8	439 453	3	11
Solomon Islands	162	2	50	3	384 488	2	3
Burundi	218	2	52	5	141 788	4	4
Solomon Islands	50	2	15	1	11 301	4	2
Kuwait	1 847	1	108	6	84 404 957	2	10
Venezuela (Bolivarian Republic of)	2 096	1	117	2	83 477 465	2	4
Qatar	1 617	1	105	3	54 911 998	3	5
Brunei Darussalam	705	1	75	2	11 182 510	2	4
Turkmenistan	410	1	72	2	9 085 233	2	2
Gabon	753	1	106	5	7 961 366	2	6

Economy	Exported products (HS 6)		Export destinations			Inverse Herfindahl index	
	(within 100%)	(within 75%)	(within 100%)	(within 75%)	Total exports ($)	Exported products	Export destinations
Mali	650	1	78	1	1 918 240	2	2
Marshall Islands	159	1	50	2	1 647 482	2	4
New Caledonia	1112	1	53	5	1 631 965	3	6
Vanuatu	240	1	48	0	559 466	3	1
Bhutan	93	1	27	0	521 404	2	1
Seychelles	255	1	72	3	340 600	3	5
Falkland Islands	89	1	52	1	194 976	2	2
Timor-Leste	233	1	50	0	169 611	3	1
Palau	84	1	23	0	30 175	2	1
Sao Tome and Principe	70	1	15	2	10 624	2	3
Saudia	3 718	0	134	9	323 291 696	2	11
Islamic Republic of Iran	2 990	0	130	7	106 338 890	2	10
Nigeria	875	0	137	7	81 820 509	1	5
Angola	688	0	93	4	66 672 565	1	5
Libyan Arab Jamahiriya	649	0	88	6	62 441 076	1	6
Iraq	466	0	75	5	60 334 832	1	5
Azerbaijan	841	0	87	6	47 756 141	1	5
Equatorial Guinea	214	0	55	5	15 977 114	2	8
Republic of the Congo	502	0	97	2	12 683 410	1	4
Sudan	248	0	91	0	9 500 959	1	2
Yemen	1 133	0	113	4	7 583 752	2	6
Aruba	1 377	0	72	3	5 467 044	1	3
Chad	295	0	56	0	3 934 489	1	1
Suriname	567	0	77	3	1 743 607	1	4
Guinea-Bissau	105	0	42	0	134 821	1	2
Nauru	227	0	40	1	126 477	1	2
Samoa	155	0	22	0	71 973	2	1
Wallis and Futuna Islands	70	0	25	0	18 715	1	1

Source: ITC databases.

Notes: Where the number of products or markets within 75% is equal to zero this implies that a single product or market accounts for more than 75% of exports.

EXPORTS OF PROCESSED GOODS

Table 30: Increased share of exports of processed goods (absolute percentage change 1996–2008)

Country	Share of processing stage (% total), 1996	Share of processing stage (% total), 2008	Change 1996-2008
Aruba	5.3%	94.8%	89.5%
Marshall Islands	14.8%	94.5%	79.6%
Madagascar	7.9%	73.5%	65.6%
Netherlands Antilles	15.6%	78.3%	62.7%
Dominican Republic	3.4%	64.8%	61.4%
Belarus	20.5%	70.7%	50.2%
Bhutan	7.3%	49.6%	42.2%
Senegal	13.8%	55.4%	41.6%
Eritrea	12.1%	53.7%	41.6%
Honduras	25.1%	66.1%	41.0%
Cambodia	54.6%	95.6%	40.9%
Turks and Caicos Islands	5.1%	45.9%	40.8%
Cayman Islands	58.6%	97.3%	38.7%
Costa Rica	31.3%	69.9%	38.7%
El Salvador	39.8%	78.0%	38.2%
Sao Tome and Principe	14.5%	51.8%	37.3%
Anguilla	44.2%	76.3%	32.1%
Jordan	22.8%	54.4%	31.6%
Wallis and Futuna Islands	70.2%	97.6%	27.4%
Bahrain	25.3%	51.9%	26.6%
Kiribati	0.2%	26.0%	25.8%
Vanuatu	32.4%	57.0%	24.6%
Uganda	9.1%	32.6%	23.5%
Benin	5.2%	27.4%	22.3%
Comoros	4.4%	26.3%	22.0%
St Vincent and the Grenadines	20.9%	42.1%	21.3%
Grenada	24.2%	45.1%	20.9%
Paraguay	26.7%	46.0%	19.3%
Egypt	26.6%	44.9%	18.3%
Zimbabwe	17.0%	34.4%	17.4%
Guatemala	32.6%	50.0%	17.4%
Côte d'Ivoire	20.9%	37.8%	16.8%
Bangladesh	73.4%	90.0%	16.6%
Kuwait	7.1%	22.8%	15.7%
Gibraltar	65.9%	81.7%	15.7%
Yemen	1.9%	16.6%	14.8%

Country	Share of processing stage (% total), 1996	Share of processing stage (% total), 2008	Change 1996-2008
Niue	66.4%	80.8%	14.3%
Syrian Arab Republic	7.6%	21.7%	14.0%
Suriname	1.2%	15.0%	13.8%
Slovakia	65.8%	79.4%	13.6%
Pakistan	42.1%	55.4%	13.3%
Western Sahara	2.5%	15.6%	13.1%
Haiti	68.9%	81.9%	13.0%
Gambia	13.8%	26.8%	13.0%
Kenya	25.4%	38.0%	12.6%
United Arab Emirates	13.4%	25.8%	12.4%
Colombia	21.0%	32.9%	11.9%
Burundi	1.7%	13.5%	11.8%
Turkmenistan	2.5%	14.2%	11.7%
India	45.9%	57.5%	11.6%
Cuba	12.7%	24.3%	11.6%
Czech Republic	69.4%	80.9%	11.5%
Barbados	70.6%	81.9%	11.3%
United Republic of Tanzania	9.0%	20.1%	11.1%
Afghanistan	22.3%	33.3%	11.1%
Brunei	12.8%	23.1%	10.3%
Argentina	45.7%	55.5%	9.8%
Trinidad and Tobago	23.9%	33.1%	9.2%
New Zealand	53.5%	62.6%	9.2%
Romania	63.5%	72.4%	9.0%
Morocco	36.9%	45.7%	8.9%
Antigua and Barbuda	71.7%	80.6%	8.8%
Poland	69.2%	77.6%	8.4%
Finland	56.8%	65.0%	8.3%
Uruguay	44.6%	52.9%	8.3%
Mozambique	8.6%	16.7%	8.1%
Papua New Guinea	7.5%	15.3%	7.7%
Somalia	2.1%	9.7%	7.6%
Nicaragua	43.9%	51.3%	7.4%
South Africa	27.3%	34.6%	7.3%
Greece	53.8%	61.1%	7.3%
Ecuador	12.7%	19.9%	7.1%
Faeroe Islands	15.3%	22.3%	6.9%
Uzbekistan	11.8%	18.3%	6.5%
China	76.0%	82.5%	6.5%

Country	Share of processing stage (% total), 1996	Share of processing stage (% total), 2008	Change 1996-2008
Algeria	2.4%	8.7%	6.2%
Republic of Korea	72.0%	77.9%	5.9%
Sierra Leone	9.5%	15.1%	5.7%
Saudi Arabia	3.8%	9.4%	5.6%
Bosnia and Herzegovina	52.6%	58.1%	5.5%
Bulgaria	52.8%	58.2%	5.4%
Hungary	74.6%	79.9%	5.3%
Hong Kong (SAR China)	79.2%	84.2%	5.0%
Serbia and Montenegro	49.9%	54.6%	4.7%
Switzerland	78.8%	83.4%	4.6%
Viet Nam	46.9%	51.5%	4.6%
Jamaica	30.2%	34.5%	4.3%
Denmark	72.0%	76.1%	4.1%
Tonga	4.3%	8.2%	3.9%
Guinea	6.6%	10.6%	3.9%
Falkland Islands	6.5%	10.4%	3.9%
Fiji	40.8%	44.6%	3.8%
Lithuania	67.9%	71.5%	3.6%
Estonia	68.5%	72.1%	3.6%
Macao (SAR China)	87.7%	91.1%	3.4%
Indonesia	38.0%	41.3%	3.3%
Nigeria	1.0%	3.9%	2.9%
Thailand	69.8%	72.4%	2.6%
Croatia	72.6%	74.8%	2.2%
Turkey	64.3%	66.5%	2.2%
Sweden	66.4%	68.5%	2.1%
Qatar	3.0%	4.9%	1.8%
Gabon	1.0%	2.8%	1.8%
Germany	72.8%	74.5%	1.7%
Rwanda	11.3%	12.9%	1.6%
France	74.4%	75.9%	1.5%
New Caledonia	1.2%	2.4%	1.2%
Solomon Islands	11.2%	12.2%	1.1%
Spain	71.8%	72.7%	0.9%
Democratic Republic of the Congo	1.6%	2.5%	0.9%
Philippines	86.8%	87.5%	0.7%
Guinea-Bissau	0.6%	1.3%	0.6%
Angola	0.4%	1.0%	0.5%
Liberia	46.2%	46.7%	0.5%

Country	Share of processing stage (% total), 1996	Share of processing stage (% total), 2008	Change 1996-2008
Mali	5.3%	5.7%	0.4%
Dominica	49.7%	50.1%	0.4%
Norway	19.4%	19.8%	0.3%
Congo	1.2%	1.4%	0.2%
Zambia	5.5%	5.7%	0.1%
Slovenia	79.1%	78.8%	-0.3%
Ghana	7.9%	7.5%	-0.4%
Islamic Republic of Iran	5.1%	4.6%	-0.5%
Netherlands	61.5%	61.0%	-0.5%
Libyan Arab Jamahiriya	7.2%	6.7%	-0.5%
Equatorial Guinea	0.8%	0.3%	-0.6%
Malawi	8.4%	7.7%	-0.7%
Cyprus	78.9%	78.2%	-0.7%
Mexico	73.2%	72.5%	-0.7%
Guyana	8.6%	7.6%	-0.9%
Tokelau	70.4%	69.1%	-1.3%
Albania	63.4%	62.0%	-1.4%
Samoa	90.2%	88.8%	-1.5%
Cameroon	6.8%	5.2%	-1.6%
Chinese Taipei	76.3%	74.7%	-1.7%
Ukraine	37.1%	35.4%	-1.7%
Mauritania	2.0%	0.3%	-1.7%
Latvia	56.7%	54.8%	-1.9%
Austria	74.8%	72.8%	-2.0%
Italy	80.1%	77.8%	-2.2%
Mauritius	64.5%	62.1%	-2.4%
Oman	15.8%	13.2%	-2.6%
Centra African Republic	14.0%	11.4%	-2.6%
United States of America	72.2%	69.4%	-2.8%
Lebanon	53.6%	50.6%	-3.0%
Israel	52.0%	48.9%	-3.2%
Tajikistan	9.3%	6.0%	-3.2%
Peru	29.1%	25.7%	-3.4%
Brazil	50.4%	46.4%	-4.0%
Armenia	34.4%	30.2%	-4.1%
Republic of Moldova	77.1%	72.8%	-4.3%
Chad	8.8%	3.9%	-4.8%
Mongolia	10.4%	5.5%	-4.9%
Burkina Faso	10.5%	5.5%	-5.0%

Country	Share of processing stage (% total), 1996	Share of processing stage (% total), 2008	Change 1996-2008
Tunisia	69.1%	63.6%	-5.5%
Kazakhstan	10.9%	5.3%	-5.7%
Ethiopia	13.2%	7.1%	-6.1%
Tuvalu	82.8%	76.4%	-6.4%
Singapore	87.5%	80.9%	-6.7%
Iceland	30.4%	23.6%	-6.8%
Japan	83.5%	76.6%	-6.9%
Myanmar	17.4%	10.3%	-7.1%
Democratic People's Republic of Korea	57.6%	50.4%	-7.1%
Chile	19.8%	12.3%	-7.4%
United Kingdom	75.1%	67.6%	-7.5%
Ireland	82.7%	75.1%	-7.6%
Malta	96.9%	89.2%	-7.7%
Iraq	8.4%	0.6%	-7.9%
Nauru	11.5%	2.6%	-8.9%
Sudan	12.4%	3.1%	-9.3%
Australia	30.8%	21.4%	-9.4%
Canada	52.8%	43.4%	-9.4%
Panama	25.1%	15.6%	-9.5%
Georgia	41.0%	31.5%	-9.6%
Sri Lanka	71.5%	61.8%	-9.7%
Greenland	35.3%	25.4%	-10.0%
Venezuela (Bolivarian Republic of)	31.5%	21.5%	-10.0%
the former Yugoslav Republic of Macedonia	55.7%	45.2%	-10.5%
Andorra	93.2%	82.6%	-10.6%
Portugal	82.9%	71.7%	-11.2%
Bolivia	27.6%	13.3%	-14.3%
Bahamas	65.3%	50.0%	-15.3%
Malaysia	76.2%	60.5%	-15.8%
Federated States of Micronesia	21.2%	5.2%	-16.0%
Belize	37.9%	20.8%	-17.1%
Brunei Darussalam	20.9%	1.7%	-19.1%
Togo	31.1%	11.0%	-20.1%
Bermuda	60.4%	38.6%	-21.8%
Kyrgyzstan	45.6%	20.7%	-24.9%
Niger	36.6%	10.1%	-26.5%
Lao People's Democratic Republic	57.9%	29.7%	-28.2%
Djibouti	65.8%	35.8%	-30.0%
Palau	37.4%	5.0%	-32.3%

Country	Share of processing stage (% total), 1996	Share of processing stage (% total), 2008	Change 1996-2008
Nepal	85.5%	52.2%	-33.2%
Cape Verde	76.4%	39.6%	-36.8%
Maldives	47.6%	8.7%	-38.9%
Seychelles	93.7%	31.3%	-62.3%
Timor-Leste	80.2%	10.1%	-70.1%
Azerbaijan	79.2%	5.6%	-73.6%

Source: ITC databases.

Notes: Change of value share of processed exports.

INTRA-INDUSTRY TRADE INDEX

Table 31: Intra-industry trade index (1996–2009, ranked by 2009 processed trade)

Economy	1996			2009		
	Primary	Semi-processed	Processed	Primary	Semi-processed	Processed
Belgium*	0.712	0.696	0.818	0.618	0.777	0.898
Hong Kong (SAR China)	0.541	0.622	0.857	0.569	0.788	0.890
Singapore	0.375	0.657	0.765	0.119	0.210	0.849
Austria	0.515	0.524	0.795	0.441	0.555	0.830
Netherlands	0.472	0.707	0.834	0.526	0.689	0.809
Czech Republic	0.413	0.556	0.768	0.415	0.573	0.806
France	0.467	0.753	0.831	0.396	0.665	0.798
Estonia	0.500	0.498	0.597	0.621	0.552	0.797
Sweden	0.372	0.564	0.696	0.288	0.497	0.795
Slovenia	0.275	0.544	0.789	0.276	0.531	0.779
Hungary	0.190	0.540	0.690	0.318	0.496	0.776
United Kingdom	0.576	0.714	0.843	0.716	0.739	0.768
Denmark	0.517	0.511	0.679	0.537	0.471	0.760
Germany	0.447	0.792	0.736	0.435	0.828	0.757
Poland	0.209	0.553	0.555	0.423	0.522	0.737
Malaysia	0.305	0.405	0.627	0.470	0.577	0.730
Mexico	0.214	0.359	0.663	0.194	0.344	0.730
Netherlands Antilles	0.110	0.099	0.617	0.045	0.461	0.727
Spain	0.368	0.666	0.769	0.394	0.678	0.721
Latvia	0.241	0.334	0.458	0.268	0.420	0.710
United States of America	0.398	0.549	0.737	0.320	0.579	0.709
Canada	0.525	0.553	0.743	0.562	0.651	0.706
Slovakia	0.191	0.658	0.637	0.230	0.609	0.681
Finland	0.245	0.366	0.625	0.164	0.453	0.679
Portugal	0.347	0.381	0.605	0.258	0.579	0.673
Italy	0.243	0.588	0.645	0.275	0.620	0.671
Switzerland	0.533	0.601	0.620	0.410	0.497	0.669
Bulgaria	0.223	0.512	0.561	0.229	0.428	0.663
Thailand	0.368	0.427	0.536	0.336	0.391	0.659
Chinese Taipei	0.414	0.499	0.641	0.099	0.345	0.654
Romania	0.126	0.348	0.447	0.290	0.361	0.647
Serbia and Montenegro	0.232	0.341	0.504	0.259	0.454	0.644
Ukraine	0.161	0.337	0.674	0.213	0.340	0.642
Croatia	0.215	0.429	0.578	0.254	0.296	0.642
Philippines	0.195	0.391	0.596	0.253	0.129	0.641

Economy	1996			2009		
	Primary	Semi-processed	Processed	Primary	Semi-processed	Processed
Luxembourg*	0.712	0.696	0.818	0.335	0.466	0.636
Iraq	0.020	0.074	0.024	0.004	0.622	0.625
Turkey	0.258	0.363	0.360	0.273	0.413	0.620
South Africa	0.261	0.495	0.532	0.198	0.457	0.615
Republic of Korea	0.149	0.502	0.641	0.217	0.367	0.595
Norway	0.103	0.334	0.597	0.048	0.162	0.592
Lithuania	0.294	0.509	0.628	0.248	0.605	0.583
Brazil	0.183	0.433	0.518	0.395	0.429	0.581
Tunisia	0.338	0.255	0.425	0.371	0.201	0.570
China	0.431	0.600	0.432	0.207	0.338	0.565
Gabon	0.004	0.021	0.021	0.003	0.014	0.565
Israel	0.679	0.377	0.550	0.420	0.401	0.562
Costa Rica	0.094	0.238	0.407	0.113	0.155	0.552
Japan	0.070	0.508	0.511	0.137	0.442	0.516
Bahamas	0.277	0.238	0.175	0.012	0.269	0.505
Angola	0.002	0.010	0.321	0.003	0.005	0.503
Sudan	0.079	0.072	0.025	0.011	0.240	0.501
India	0.340	0.419	0.357	0.306	0.480	0.493
Libyan Arab Jamahiriya	0.009	0.054	0.241	0.002	0.015	0.492
Colombia	0.095	0.419	0.303	0.078	0.458	0.480
Guatemala	0.181	0.296	0.521	0.128	0.252	0.476
Jordan	0.168	0.098	0.184	0.173	0.443	0.475
Belarus	0.216	0.404	0.463	0.180	0.357	0.471
Argentina	0.171	0.353	0.411	0.145	0.387	0.471
El Salvador	0.088	0.435	0.442	0.088	0.297	0.468
Malta	0.077	0.076	0.669	0.122	0.077	0.461
Senegal	0.100	0.175	0.102	0.181	0.283	0.450
Indonesia	0.271	0.370	0.351	0.461	0.519	0.439
Kazakhstan	0.329	0.341	0.206	0.124	0.503	0.439
Greece	0.386	0.390	0.356	0.367	0.458	0.438
Bosnia and Herzegovina	0.297	0.282	0.246	0.203	0.384	0.434
Ireland	0.523	0.367	0.638	0.374	0.373	0.426
Syrian Arab Republic	0.071	0.101	0.399	0.119	0.390	0.426
the former Yugoslav Republic of Macedonia	0.274	0.393	0.485	0.353	0.343	0.417
Oman	0.047	0.066	0.737	0.059	0.149	0.404
Tokelau	0.000	0.127	0.275	0.037	0.148	0.401
Egypt	0.192	0.195	0.208	0.244	0.243	0.393

Economy	1996			2009		
	Primary	Semi-processed	Processed	Primary	Semi-processed	Processed
United Arab Emirates	0.067	0.218	0.306	0.304	0.405	0.386
Republic of Moldova	0.291	0.349	0.322	0.219	0.141	0.385
Viet Nam	0.175	0.133	0.198	0.256	0.311	0.385
New Zealand	0.168	0.345	0.376	0.261	0.504	0.384
Islamic Republic of Iran	0.029	0.504	0.165	0.055	0.402	0.381
Ecuador	0.090	0.122	0.202	0.198	0.051	0.369
Dominican Republic	0.161	0.161	0.095	0.151	0.222	0.362
Australia	0.208	0.261	0.475	0.245	0.232	0.360
Peru	0.246	0.287	0.149	0.182	0.270	0.358
Barbados	0.187	0.188	0.403	0.406	0.217	0.356
Belize	0.145	0.031	0.157	0.124	0.347	0.352
Faroe Islands	0.080	0.006	0.160	0.027	0.013	0.345
Sri Lanka	0.454	0.252	0.400	0.369	0.218	0.342
Côte d'Ivoire	0.097	0.188	0.216	0.282	0.184	0.342
Sierra Leone	0.080	0.075	0.391	0.032	0.084	0.337
Macao (SAR China)	0.244	0.336	0.245	0.191	0.206	0.334
Anguilla	0.079	0.060	0.324	0.066	0.180	0.331
Botswana				0.138	0.514	0.325
Democratic People's Republic of Korea	0.266	0.461	0.405	0.244	0.286	0.321
Morocco	0.147	0.273	0.197	0.188	0.160	0.315
Zambia	0.324	0.100	0.161	0.452	0.152	0.311
Yemen	0.063	0.185	0.332	0.068	0.501	0.310
Marshall Islands	0.021	0.014	0.015	0.028	0.231	0.310
Chile	0.112	0.240	0.208	0.132	0.169	0.307
Swaziland				0.054	0.181	0.307
Cayman Islands	0.072	0.228	0.351	0.099	0.011	0.300
Jamaica	0.065	0.128	0.301	0.095	0.173	0.296
Uruguay	0.219	0.362	0.266	0.127	0.415	0.294
Congo	0.057	0.011	0.072	0.003	0.007	0.289
Liberia	0.070	0.025	0.258	0.018	0.047	0.280
Namibia				0.279	0.197	0.272
Kyrgyzstan	0.261	0.358	0.440	0.203	0.036	0.270
Andorra	0.010	0.026	0.083	0.105	0.136	0.268
Pakistan	0.537	0.114	0.154	0.187	0.267	0.266
Cyprus	0.248	0.179	0.493	0.323	0.161	0.264
Honduras	0.117	0.282	0.286	0.165	0.123	0.263
Georgia	0.256	0.139	0.267	0.085	0.189	0.256

Economy	1996			2009		
	Primary	Semi-processed	Processed	Primary	Semi-processed	Processed
Antigua y Barbuda	0.107	0.069	0.260	0.200	0.258	0.249
Saudi Arabia	0.020	0.564	0.147	0.024	0.468	0.245
Uzbekistan	0.070	0.267	0.167	0.072	0.147	0.245
Palestine				0.100	0.087	0.239
Iceland	0.173	0.092	0.102	0.181	0.084	0.235
Fiji	0.123	0.048	0.374	0.234	0.131	0.234
Mozambique	0.168	0.311	0.072	0.186	0.173	0.233
Kenya	0.151	0.282	0.303	0.115	0.143	0.227
Nepal	0.294	0.188	0.171	0.284	0.319	0.226
Trinidad and Tobago	0.640	0.237	0.288	0.390	0.473	0.226
Albania	0.189	0.187	0.256	0.243	0.219	0.222
Mauritius	0.168	0.191	0.212	0.384	0.274	0.221
Gambia	0.244	0.054	0.073	0.235	0.174	0.221
Russian Federation	0.152	0.311	0.431	0.061	0.644	0.211
Madagascar	0.068	0.096	0.110	0.119	0.116	0.208
United Republic of Tanzania	0.190	0.190	0.208	0.326	0.195	0.183
Cameroon	0.207	0.118	0.261	0.397	0.103	0.182
Aruba	0.028	0.021	0.310	0.006	0.074	0.181
American Samoa				0.076	0.170	0.166
Qatar	0.004	0.098	0.039	0.019	0.036	0.163
Bahrain	0.275	0.188	0.321	0.240	0.361	0.161
Lebanon	0.364	0.082	0.156	0.245	0.131	0.156
Nicaragua	0.122	0.134	0.237	0.096	0.139	0.155
Papua New Guinea	0.023	0.062	0.024	0.288	0.073	0.150
Dominica	0.080	0.229	0.165	0.115	0.345	0.147
Guyana	0.069	0.060	0.170	0.189	0.073	0.144
Afghanistan	0.101	0.066	0.068	0.086	0.000	0.143
Bangladesh	0.113	0.131	0.187	0.161	0.148	0.143
Zimbabwe	0.164	0.379	0.219	0.107	0.267	0.140
Cuba	0.082	0.076	0.083	0.083	0.080	0.136
Armenia	0.406	0.280	0.262	0.383	0.319	0.135
Malawi	0.100	0.094	0.430	0.213	0.159	0.135
Bolivia	0.188	0.157	0.177	0.078	0.073	0.132
Suriname	0.057	0.116	0.024	0.045	0.119	0.122
Cambodia	0.268	0.069	0.065	0.107	0.095	0.117
Lao People's Democratic Republic	0.128	0.067	0.103	0.083	0.093	0.108
Azerbaijan	0.137	0.127	0.205	0.026	0.354	0.108

Economy	1996			2009		
	Primary	Semi-processed	Processed	Primary	Semi-processed	Processed
St. Vincent and the Grenadines	0.283	0.066	0.165	0.175	0.033	0.104
Falkland Islands	0.019	0.095	0.067	0.034	0.024	0.102
Ghana	0.049	0.069	0.239	0.102	0.035	0.100
Paraguay	0.310	0.217	0.055	0.087	0.180	0.095
Eritrea	0.040	0.012	0.042	0.023	0.052	0.094
Bhutan	0.085	0.080	0.061	0.159	0.278	0.091
Nigeria	0.014	0.467	0.319	0.031	0.092	0.089
Myanmar	0.153	0.153	0.082	0.056	0.113	0.088
Seychelles	0.241	0.051	0.313	0.770	0.128	0.086
Niue	0.171	0.031	0.034	0.007	0.034	0.086
Vanuatu	0.033	0.069	0.188	0.018	0.056	0.084
Comoros	0.009	0.005	0.010	0.013	0.005	0.083
Bouvet Island				0.000	0.133	0.083
Sao Tome and Principe	0.024	0.073	0.066	0.018	0.038	0.081
Bermuda	0.103	0.055	0.344	0.008	0.016	0.079
Samoa	0.215	0.046	0.477	0.076	0.003	0.079
Ethiopia	0.054	0.045	0.100	0.058	0.036	0.077
Turks and Caicos Islands	0.045	0.010	0.042	0.026	0.035	0.076
Haiti	0.108	0.056	0.116	0.109	0.073	0.068
Solomon Islands	0.020	0.012	0.051	0.013	0.100	0.067
Timor-Leste	0.000	0.054	0.189	0.070	0.004	0.066
Tajikistan	0.024	0.156	0.247	0.053	0.098	0.064
Tonga	0.041	0.030	0.077	0.164	0.037	0.060
Grenada	0.084	0.086	0.069	0.128	0.112	0.058
Uganda	0.170	0.098	0.113	0.101	0.332	0.056
Turkmenistan	0.007	0.141	0.150	0.056	0.153	0.055
Centra African Republic	0.363	0.059	0.168	0.059	0.058	0.048
Brunei Darussalam	0.022	0.029	0.176	0.003	0.010	0.048
Tuvalu	0.141	0.084	0.196	0.019	0.078	0.045
Chad	0.126	0.070	0.139	0.006	0.004	0.043
Panama	0.082	0.148	0.113	0.138	0.083	0.042
Niger	0.084	0.528	0.488	0.009	0.025	0.041
Algeria	0.025	0.102	0.130	0.010	0.048	0.041
Mauritania	0.019	0.109	0.380	0.001	0.003	0.041
New Caledonia	0.046	0.059	0.015	0.046	0.081	0.040
Mali	0.045	0.038	0.073	0.380	0.014	0.039
Kiribati	0.008	0.002	0.000	0.000	0.004	0.037

Economy	1996			2009		
	Primary	Semi-processed	Processed	Primary	Semi-processed	Processed
Guam				0.134	0.007	0.035
Gibraltar	0.100	0.053	0.161	0.080	0.004	0.034
Djibouti	0.047	0.052	0.045	0.025	0.003	0.034
Mongolia	0.020	0.053	0.055	0.018	0.028	0.033
Nauru	0.013	0.171	0.222	0.004	0.075	0.032
Greenland	0.011	0.291	0.086	0.053	0.072	0.029
Venezuela (Bolivarian Republic of)	0.033	0.195	0.120	0.043	0.164	0.029
Kuwait	0.016	0.063	0.041	0.010	0.021	0.028
Cape Verde	0.006	0.065	0.054	0.026	0.000	0.028
Federated States of Micronesia	0.128	0.005	0.099	0.084	0.012	0.027
Guinea	0.047	0.028	0.128	0.042	0.008	0.025
Democratic Republic of the Congo	0.045	0.126	0.038	0.031	0.053	0.023
Guinea-Bissau	0.023	0.166	0.007	0.007	0.018	0.021
Lesotho				0.012	0.045	0.021
Maldives	0.035	0.005	0.035	0.023	0.164	0.020
Burundi	0.030	0.021	0.041	0.022	0.025	0.018
Rwanda	0.127	0.033	0.015	0.030	0.006	0.018
Togo	0.104	0.408	0.379	0.200	0.006	0.017
Somalia	0.037	0.039	0.030	0.112	0.076	0.015
Burkina Faso	0.045	0.041	0.091	0.066	0.024	0.015
Palau	0.267	0.027	0.097	0.010	0.015	0.013
Wallis and Futuna Islands	0.029	0.004	0.047	0.000	0.009	0.010
Western Sahara	0.000	0.000	0.030	0.000	0.000	0.004
Benin	0.193	0.060	0.053	0.133	0.033	0.003
Equatorial Guinea	0.024	0.013	0.032	0.704	0.001	0.002

Source: ITC databases.

* Belgium and Luxembourg reported as a single exporter for 1996 data.

AVERAGE APPLIED TARIFFS BY COUNTRY

Table 32: Weighted tariffs by trade pattern of reference group

Global		Global		Agriculture		Industry		
Rank	Country Name	Average	Rank	Average	Rank	Average	Rank	Year
1	Hong Kong (SAR China)	0.0%	1	0.0%	1	0.0%	1	2009
2	Libyan Arab Jamahiriya	0.0%	2	0.0%	2	0.0%	2	2006
3	Macao (SAR China)	0.0%	3	0.0%	3	0.0%	3	2009
4	Singapore	0.0%	4	0.6%	4	0.0%	4	2008
5	Georgia	0.7%	5	9.3%	35	0.1%	5	2009
6	European Union	0.8%	6	6.2%	26	0.5%	8	2009
7	Mauritius	1.2%	7	1.7%	7	1.2%	11	2009
8	United States of America	1.4%	8	5.1%	14	1.2%	12	2009
9	New Zealand	1.6%	9	1.0%	5	1.6%	15	2008
10	Armenia	2.2%	10	8.4%	30	1.8%	17	2008
11	Switzerland	2.3%	11	33.5%	144	0.2%	7	2009
12	Republic of Moldova	2.5%	12	12.9%	78	1.8%	16	2008
13	Japan	2.7%	13	25.3%	136	1.2%	13	2008
14	Palau	2.8%	14	2.6%	8	2.8%	25	2005
15	Peru	2.9%	15	5.0%	13	2.7%	23	2009
16	Ukraine	2.9%	16	8.8%	34	2.5%	21	2009
17	Canada	2.9%	17	24.9%	134	1.4%	14	2009
18	Croatia	3.0%	18	11.5%	57	2.4%	20	2009
19	Haiti	3.2%	19	3.9%	10	3.1%	27	2009
20	Norway	3.2%	20	48.5%	155	0.1%	6	2009
21	Iceland	3.3%	21	35.9%	148	1.0%	10	2009
22	Albania	3.4%	22	6.8%	27	3.2%	29	2008
23	Costa Rica	3.4%	23	12.3%	70	2.8%	24	2009
24	Papua New Guinea	3.6%	24	12.2%	69	2.2%	18	2008
25	Myanmar	3.6%	25	7.8%	28	3.3%	31	2007
26	Mayotte	3.6%	26	5.8%	22	3.4%	32	2009
27	Montenegro	3.7%	27	12.8%	76	2.5%	22	2009
28	Turkmenistan	3.7%	28	23.2%	130	2.3%	19	2002
29	Nicaragua	3.7%	29	10.9%	52	3.2%	28	2009
30	Philippines	3.8%	30	11.5%	56	3.4%	33	2007
31	Indonesia	3.9%	31	12.7%	74	3.3%	30	2009
32	Australia	3.9%	32	1.0%	6	4.1%	45	2009
33	El Salvador	4.1%	33	12.0%	68	3.5%	35	2009
34	Saudi Arabia	4.1%	34	5.3%	18	4.0%	41	2009
35	Kuwait	4.1%	35	5.3%	19	4.0%	40	2009

Global		Global		Agriculture		Industry		
Rank	Country Name	Average	Rank	Average	Rank	Average	Rank	Year
36	Guatemala	4.1%	36	9.6%	39	3.7%	37	2009
37	United Arab Emirates	4.2%	37	5.6%	20	4.0%	43	2009
38	Honduras	4.2%	38	10.4%	48	3.7%	36	2008
39	Bahrain	4.2%	39	5.8%	21	4.0%	38	2009
40	Israel	4.2%	40	23.2%	131	2.9%	26	2008
41	Oman	4.2%	41	5.9%	24	4.0%	39	2009
42	Qatar	4.2%	42	6.0%	25	4.0%	42	2009
43	Kazakhstan	4.2%	43	15.8%	97	3.5%	34	2008
44	Federated States of Micronesia	4.4%	44	5.2%	15	4.3%	46	2006
45	Mongolia	4.6%	45	5.2%	17	4.6%	50	2008
46	Chile	4.7%	46	5.2%	16	4.6%	51	2008
47	Turkey	4.7%	47	61.3%	158	1.0%	9	2009
48	Tajikistan	5.0%	48	9.4%	38	4.7%	52	2006
49	Bosnia and Herzegovina	5.2%	49	17.8%	111	4.3%	47	2009
50	Brunei Darussalam	5.3%	50	26.1%	138	4.1%	44	2007
51	Serbia	5.4%	51	18.6%	117	4.5%	49	2009
52	the former Yugoslav Republic of Macedonia	5.5%	52	16.7%	106	4.7%	53	2009
53	South Africa	5.5%	53	9.4%	37	5.1%	58	2009
54	Swaziland	5.6%	54	10.0%	44	5.2%	61	2009
55	Botswana	5.6%	55	10.0%	45	5.2%	59	2009
56	Lesotho	5.6%	56	10.0%	43	5.2%	60	2009
57	Namibia	5.6%	57	10.0%	46	5.2%	63	2009
58	Yemen	5.7%	58	4.8%	12	5.8%	67	2009
59	Thailand	5.8%	59	21.3%	124	4.8%	54	2006
60	Afghanistan	5.8%	60	4.5%	11	6.1%	68	2008
61	Eritrea	5.9%	61	8.5%	32	5.7%	65	2006
62	Chinese Taipei	6.1%	62	20.3%	121	5.1%	57	2008
63	Saint Lucia	6.2%	63	15.2%	90	4.9%	56	2007
64	Malaysia	6.2%	64	22.8%	129	5.2%	62	2007
65	Lebanon	6.2%	65	16.1%	99	4.9%	55	2007
66	Panama	6.5%	66	19.0%	118	5.7%	66	2008
67	Paraguay	6.8%	67	10.0%	41	6.6%	71	2009
68	Azerbaijan	6.9%	68	12.9%	77	6.5%	70	2009
69	Republic of Korea	6.9%	69	43.9%	153	4.4%	48	2007
70	Dominican Republic	7.1%	70	13.8%	82	6.6%	73	2008
71	Mozambique	7.1%	71	11.3%	55	6.7%	75	2009
72	Jamaica	7.4%	72	19.7%	119	5.6%	64	2006
73	Ecuador	7.4%	73	17.7%	110	6.6%	72	2009

Global		Global		Agriculture		Industry		
Rank	Country Name	Average	Rank	Average	Rank	Average	Rank	Year
74	Tonga	7.4%	74	10.6%	49	6.9%	78	2009
75	Uruguay	7.7%	75	9.9%	40	7.5%	84	2009
76	Kosovo	7.9%	76	7.9%	29	7.9%	89	2009
77	Mexico	7.9%	77	22.6%	127	6.8%	76	2009
78	French Polynesia	8.0%	78	5.9%	23	8.2%	92	2009
79	Lao People's Democratic Republic	8.0%	79	14.6%	86	7.6%	86	2007
80	Antigua and Barbuda	8.1%	80	15.3%	92	6.9%	77	2008
81	Bolivia	8.2%	81	11.0%	54	8.0%	91	2009
82	Saint Kitts and Nevis	8.2%	82	13.7%	81	7.2%	82	2008
83	Viet Nam	8.4%	83	22.8%	128	7.6%	85	2008
84	Dominica	8.5%	84	21.9%	125	6.7%	74	2007
85	Madagascar	8.7%	85	11.5%	58	8.5%	94	2008
86	Kenya	8.8%	86	27.0%	140	6.9%	80	2009
87	Uganda	8.8%	87	26.1%	137	7.0%	81	2009
88	Angola	8.8%	88	9.4%	36	8.8%	96	2009
89	Saint Vincent and the Grenadines	9.0%	89	15.5%	93	7.9%	88	2007
90	Grenada	9.2%	90	16.1%	100	8.0%	90	2008
91	United Republic of Tanzania	9.3%	91	27.6%	141	7.4%	83	2009
92	Jordan	9.5%	92	10.7%	50	9.3%	98	2007
93	Congo, Democratic Republic of	10.1%	93	12.4%	71	9.8%	101	2009
94	Ghana	10.1%	94	16.5%	105	8.9%	97	2009
95	Solomon Islands	10.1%	95	18.5%	116	8.7%	95	2008
96	Comoros	10.1%	96	3.8%	9	11.1%	124	2008
97	Suriname	10.2%	97	21.3%	123	8.3%	93	2007
98	Guinea-Bissau	10.3%	98	11.6%	60	10.1%	105	2009
99	Niger	10.3%	99	11.6%	62	10.1%	106	2009
100	Togo	10.3%	100	11.6%	64	10.1%	107	2009
101	Benin	10.3%	101	11.6%	63	10.1%	108	2009
102	Mali	10.3%	102	11.6%	66	10.1%	109	2009
103	Burkina Faso	10.3%	103	11.6%	61	10.1%	110	2009
104	Senegal	10.3%	104	11.6%	65	10.1%	111	2009
105	Côte d'Ivoire	10.3%	105	11.6%	67	10.1%	112	2009
106	Guyana	10.4%	106	29.8%	143	7.7%	87	2008
107	Belize	10.5%	107	36.0%	149	6.9%	79	2008
108	Argentina	10.5%	108	10.3%	47	10.5%	116	2009
109	Cape Verde	10.5%	109	8.8%	33	10.9%	121	2009
110	Mauritania	10.6%	110	10.0%	42	10.7%	119	2007
111	Zambia	10.6%	111	15.7%	95	10.1%	104	2009

Global		Global		Agriculture		Industry		
Rank	Country Name	Average	Rank	Average	Rank	Average	Rank	Year
112	Nigeria	10.7%	112	14.7%	87	9.9%	102	2009
113	Malawi	10.8%	113	15.6%	94	10.3%	113	2009
114	Cuba	10.8%	114	13.6%	80	10.6%	117	2009
115	Colombia	11.0%	115	18.3%	115	10.5%	115	2009
116	Kyrgyzstan	11.1%	116	12.9%	79	11.0%	123	2009
117	Brazil	11.1%	117	10.7%	51	11.2%	127	2009
118	Guinea	11.2%	118	12.7%	75	10.8%	120	2009
119	Syrian Arab Republic	11.5%	119	10.9%	53	11.6%	132	2009
120	Belarus	11.5%	120	17.6%	109	11.1%	125	2009
121	Russian Federation	11.6%	121	20.8%	122	10.9%	122	2009
122	China	11.7%	122	20.2%	120	11.2%	126	2009
123	Sri Lanka	11.8%	123	24.9%	135	10.0%	103	2009
124	Venezuela (Bolivarian Republic of)	11.9%	124	15.7%	96	11.7%	133	2009
125	Ethiopia	12.0%	125	18.1%	112	11.4%	129	2009
126	Cambodia	12.3%	126	14.3%	85	12.1%	134	2007
127	Bangladesh	12.7%	127	12.6%	73	12.7%	135	2007
128	Trinidad and Tobago	12.7%	128	59.8%	157	6.2%	69	2008
129	Burundi	12.8%	129	11.6%	59	12.9%	136	2008
130	Seychelles	12.8%	130	40.9%	152	9.8%	100	2007
131	India	13.2%	131	39.3%	151	11.4%	128	2008
132	Algeria	13.5%	132	13.9%	83	13.4%	139	2009
133	Egypt	13.5%	133	34.0%	145	10.6%	118	2009
134	Sierra Leone	13.7%	134	15.3%	91	13.3%	138	2006
135	Fiji	13.9%	135	35.8%	147	10.4%	114	2009
136	Vanuatu	14.0%	136	29.1%	142	11.5%	131	2009
137	Gabon	14.4%	137	16.1%	98	14.2%	140	2009
138	Equatorial Guinea	14.6%	138	16.2%	102	14.4%	143	2007
139	Central African Republic	14.6%	139	16.2%	104	14.4%	144	2007
140	Congo	14.6%	140	16.2%	103	14.4%	142	2007
141	Chad	14.7%	141	16.2%	101	14.4%	145	2009
142	Cameroon	14.7%	142	17.4%	107	14.2%	141	2009
143	Tunisia	15.7%	143	34.4%	146	13.1%	137	2008
144	Rwanda	15.9%	144	18.2%	114	15.7%	147	2008
145	Kiribati	16.1%	145	26.4%	139	14.4%	146	2006
146	Morocco	16.1%	146	48.6%	156	11.5%	130	2009
147	Nepal	16.4%	147	14.0%	84	16.8%	149	2009
148	Sudan	16.8%	148	23.6%	132	15.8%	148	2009
149	Pakistan	17.1%	149	14.7%	88	17.5%	150	2008

Global		Global		Agriculture		Industry		
Rank	Country Name	Average	Rank	Average	Rank	Average	Rank	Year
150	Gambia	17.5%	150	12.6%	72	18.5%	153	2009
151	Zimbabwe	18.7%	151	22.2%	126	18.3%	152	2007
152	Barbados	19.0%	152	86.5%	159	9.5%	99	2007
153	Djibouti	19.9%	153	8.4%	31	21.5%	154	2009
154	Bhutan	21.6%	154	48.4%	154	17.8%	151	2007
155	Islamic Republic of Iran	22.9%	155	18.2%	113	23.5%	155	2008
156	Maldives	26.1%	156	15.2%	89	27.6%	156	2009
157	Bahamas	27.2%	157	17.5%	108	28.5%	158	2007
158	Uzbekistan	27.3%	158	23.8%	133	27.8%	157	2009
159	Bermuda	48.7%	159	38.6%	150	49.9%	159	2009

Source: ITC databases.

EXPORTS ELIGIBLE FOR PREFERENCES

Table 33: Exports eligible for preferences and tariff margins in Australia, Canada, EU and United States (2008)

Country	Australia		Canada		EU 27		United States	
	Share of exports eligible	Weighted tariff margins	Share of exports eligible	Weighted tariff margins	Share of exports eligible	Weighted tariff margins	Share of exports eligible	Weighted tariff margins
Afghanistan	61.4	3.1	35.9	3.0	7.5	0.3	2.4	0.1
Angola	92.5	5.6	0.0	0.0	1.3	0.0	96.6	0.2
Bangladesh	69.7	11.5	98.1	17.1	99.1	11.7	0.9	0.1
Benin	no trade	no trade	17.4	1.2	45.1	7.2	98.0	0.1
Bhutan	90.8	7.0	70.9	5.4	92.3	5.0	65.6	1.6
Burkina Faso	75.3	3.8	6.7	0.5	13.3	0.7	22.3	0.6
Burundi	100.0	5.0	6.0	0.2	5.2	0.5	0.3	0.0
Cambodia	99.0	16.0	99.7	17.7	99.7	11.7	0.4	0.0
Cape Verde	100.0	5.0	7.5	1.0	90.6	14.2	30.4	1.2
Central African Republic	no trade	no trade	7.6	0.6	0.7	0.1	5.7	0.3
Chad	no trade	no trade	13.9	1.2	8.4	0.3	99.2	0.1
Comoros	100.0	10.0	3.5	0.4	25.5	1.7	0.0	0.0
Democratic Republic of the Congo	76.0	3.8	5.0	0.8	2.5	0.5	42.2	0.1
Djibouti	0.0	0.0	0.5	0.1	54.1	4.5	24.2	2.7
Equatorial Guinea	98.0	4.9	0.0	0.0	3.7	0.1	96.4	0.5
Eritrea	0.0	0.0	52.1	8.7	59.5	4.9	2.1×	0.0
Ethiopia	1.0	0.1	3.7	0.4	38.6	3.6	14.4	2.6
Gambia	79.8	4.0	16.6	1.3	59.5	5.1	24.7	2.4
Guinea	12.2	0.6	0.2	0.0	0.6	0.0	0.7	0.0
Guinea-Bissau	no trade	no trade	64.7	3.0	12.9	1.3	0.0	0.0
Haiti	99.9	17.2	95.2	13.6	50.9	5.7	95.6	17.3
Kiribati	0.3	0.0	79.8	6.2	13.0	0.6	0.0	0.0
Lao People's Democratic Republic	58.5	5.8	96.6	16.7	84.6	10.2	0.0†	0.0
Lesotho	96.0	16.8	99.9	17.4	1.3	0.2	91.7	17.7
Liberia	27.1	4.3	0.0	0.0	1.4	0.1	0.1	0.0
Madagascar	27.7	4.2	62.1	10.6	87.5	10.6	87.5	16.7
Malawi	0.1	0.0	27.0	1.4	87.8	19.2	91.0	33.6
Maldives	47.7	7.7	42.9	6.5	98.3	18.3	0.0†	0.0
Mali	66.8	3.7	37.3	3.1	16.9	0.7	9.8	0.4
Mauritania	0.0	0.0	54.8	5.0	15.4	1.5	96.7	0.2
Mozambique	78.3	3.9	74.8	6.0	93.8	6.4	2.8	0.2
Myanmar	34.8	5.6	no trade†	no trade	88.9	10.1	no trade†	no trade
Nepal	40.9	4.9	93.1	11.4	91.1	8.9	9.5	0.4
Niger	83.6	4.2	35.7	2.7	87.0	4.0	34.4	0.9

Country	Australia		Canada		EU 27		United States	
	Share of exports eligible	Weighted tariff margins	Share of exports eligible	Weighted tariff margins	Share of exports eligible	Weighted tariff margins	Share of exports eligible	Weighted tariff margins
Rwanda	89.8	4.5	0.1	0.0	2.1	0.1	9.4	0.4
Samoa	98.9	9.9	52.4	3.7	76.6	3.4	46.3	0.6
Sao Tome and Principe	80.0	4.1	85.7	6.0	6.6	0.5	58.9	2.3
Senegal	56.9	2.9	9.2	0.6	67.3	8.1	73.7×	0.2
Sierra Leone	54.4	3.4	25.5	2.1	6.6	1.6	2.5	0.1
Solomon Islands	35.2	1.8	76.0	5.8	96.0	11.1	0.8	0.0
Somalia	12.9	0.8	2.4	0.1	53.3	1.4	38.8	1.0
Sudan	49.2	3.2	0.1	0.0	27.5	5.1	0.0†	0.0
United Republic of Tanzania	6.4	0.5	5.6	0.5	63.3	7.1	4.6	0.6
Timor-Leste	1.0	0.0	0.4	0.0	1.1	0.0	no trade	no trade
Togo	88.2	4.4	6.6	0.7	13.6	1.4	1.8	0.1
Tuvalu	23.4	1.2	no trade	no trade	92.4	3.4	34.6	1.4
Uganda	1.1	0.1	1.1	0.1	37.5	3.3	5.9	0.5
Vanuatu	14.9	1.3	36.6	2.7	88.4	5.7	4.6	0.3
Yemen	90.7	4.5	24.2	1.1	81.4	7.6	0.7	0.0
Zambia	0.4	0.0	35.1	2.3	23.9	4.4	21.5	0.4

Source: Australia Statistics Office, Canada Statistics Office, USITC website (www.usitc.gov), and Eurostat; ITC calculations. Note: ‡ 'weighted tariff margins' refers to the preferential margin (MFN minus applied preferential rates). Countries with '†' were not eligible for any preference programmes in 2008. Countries with '×', Senegal and Eritrea, are given a regular GSP status only in the United States, not treated GSP LDC status.

PRICE INSTABILITY IN TRADE

Table 34: Price instability in trade

	Exports	Imports
Iraq	119.45	2.71
Angola	117.50	2.07
Nigeria	113.06	2.77
Equatorial Guinea	108.51	1.82
Chad	108.18	1.20
Libyan Arab Jamahiriya	106.36	3.80
Republic of the Congo	105.81	2.32
Yemen	101.33	2.60
Brunei Darussalam	100.77	2.64
Azerbaijan	100.56	4.69
Islamic Republic of Iran	99.11	3.81
Saudi Arabia	94.78	4.71
Gabon	93.24	2.20
Algeria	87.68	3.30
Venezuela (Bolivarian Republic of)	87.09	2.16
Oman	86.82	4.18
Kazakhstan	83.38	10.35
Niger	82.08	4.76
Kuwait	79.10	2.44
Sudan	78.12	1.20
Qatar	75.05	1.66
Ecuador	73.32	1.84
Norway	68.52	5.90
Cameroon	65.26	25.57
Mauritania	64.62	2.09
Turkmenistan	57.54	1.38
Russian Federation	52.63	3.37
United Arab Emirates	51.68	2.08
Syrian Arab Republic	51.22	4.36
Zambia	48.85	11.08
Bolivia	43.29	2.25
Belize	42.13	0.94
Myanmar	39.68	3.13
Trinidad and Tobago	39.29	41.98
Colombia	35.99	4.17
Papua New Guinea	34.92	17.50

	Exports	Imports
Australia	33.16	10.75
Lao People's Democratic Republic	30.52	1.72
Indonesia	30.42	15.64
Viet Nam	30.01	3.24
Namibia	29.48	2.56
Chile	29.03	18.67
Cuba	28.84	9.35
Côte d'Ivoire	27.23	38.56
Uzbekistan	23.29	6.97
Kiribati	21.86	2.62
Egypt	21.81	9.71
Canada	21.63	10.33
Sao Tome and Principe	21.32	3.89
Palau	21.19	4.30
Federated States of Micronesia.	20.30	2.92
Mozambique	19.78	2.98
Bermuda	19.56	2.44
Faeroe Islands	19.18	1.86
Brazil	18.94	16.87
Democratic Republic of the Congo	18.28	2.86
Mexico	17.97	3.63
Tajikistan	17.94	5.58
New Caledonia	17.80	2.18
Liberia	17.40	0.58
Maldives	17.32	2.54
Paraguay	16.91	2.13
Iceland	16.63	2.12
Tunisia	16.02	7.58
Peru	15.95	11.93
Saint Vincent and the Grenadines	15.81	2.59
Panama	15.45	10.72
Greenland	14.67	1.88
Malaysia	14.51	8.12
Mongolia	13.98	1.93
Solomon Islands	13.66	1.23
Ghana	13.62	15.94

	Exports	Imports
Democratic People's Republic of Korea	13.58	23.22
Argentina	13.36	4.67
Guatemala	13.30	2.38
Uruguay	12.15	22.89
Barbados	11.84	2.36
Botswana	11.63	2.30
Nicaragua	10.79	14.68
South Africa	10.77	19.58
Uganda	10.75	2.56
Ethiopia	10.71	2.01
Bulgaria	10.63	15.33
Togo	10.59	3.38
Denmark	9.86	4.69
Rwanda	9.85	2.18
New Zealand	9.67	10.94
Zimbabwe	9.57	10.41
Honduras	9.32	2.05
Guyana	9.27	0.95
Burkina Faso	8.91	2.52
United Kingdom	8.75	8.60
Benin	8.74	6.23
Serbia	8.69	14.98
Sierra Leone	8.22	4.33
Vanuatu	8.17	1.76
Albania	8.00	3.11
Senegal	7.84	16.48
Dominica	7.71	2.49
Sri Lanka	7.62	14.78
Grenada	7.47	2.53
Tonga	7.21	2.42
Bhutan	7.09	4.73
Bosnia and Herzegovina	6.99	5.00
India	6.94	35.66
Burundi	6.72	4.16
Armenia	6.50	7.47
Kenya	6.49	15.91
Central African Republic	6.43	3.07
Ukraine	6.39	22.92
Gambia	6.31	4.51

	Exports	Imports
Cape Verde	6.06	2.79
Thailand	6.05	22.35
Bahrain	6.00	49.10
Fiji	5.78	2.42
Costa Rica	5.77	5.80
Georgia	5.66	5.93
Greece	5.63	18.36
Pakistan	5.59	18.92
United Republic of Tanzania	5.56	3.00
Marshall Islands	5.56	0.30
Somalia	5.17	6.40
Malawi	5.15	2.05
American Samoa	4.76	6.83
Poland	4.73	11.83
Republic of Moldova	4.66	7.01
Belarus	4.65	36.64
Croatia	4.37	13.55
Latvia	4.34	3.82
Guam	4.34	1.46
Lebanon	4.25	2.37
Palestine	4.25	6.83
Bahamas	4.23	2.10
Belgium	4.05	10.48
Djibouti	3.95	2.72
Philippines	3.80	13.51
Afghanistan	3.75	3.54
Luxembourg	3.73	2.51
Madagascar	3.67	4.03
Finland	3.63	14.17
Samoa	3.59	3.60
Slovenia	3.32	4.36
Swaziland	3.28	3.10
Estonia	3.21	3.43
Mauritius	3.19	4.47
Morocco	3.09	17.07
Romania	3.06	14.32
Spain	3.04	14.85
Sweden	3.03	11.52
Nepal	2.97	3.48

	Exports	Imports
Austria	2.84	8.34
Andorra	2.80	1.63
United States	2.70	18.48
Suriname	2.68	1.80
France	2.62	13.84
Cyprus	2.58	3.29
Czech Republic	2.50	9.47
Slovak Republic	2.48	13.01
Kyrgyzstan	2.47	6.43
Italy	2.29	14.99
Portugal	2.28	14.73
Tuvalu	2.27	3.04
Guinea-Bissau	2.26	5.32
Mali	2.25	2.72
Turkey	2.25	13.17
Lithuania	2.22	24.91
Timor-Leste	2.22	5.90
El Salvador	2.20	8.04
China	2.01	17.76
Macao (SAR China)	2.01	1.69
Guinea	2.00	3.18
Germany	2.00	12.21
Hungary	1.95	8.28
Netherlands	1.95	12.35
Malta	1.86	1.53
Eritrea	1.84	3.36
Bangladesh	1.80	6.44
Dominican Republic	1.78	12.36
Republic of Korea.	1.75	28.51
Netherlands Antilles	1.53	51.58
Jamaica	1.53	11.12
Japan	1.53	29.38
Jordan	1.39	24.19
Aruba	1.27	67.57
Hong Kong (SAR China)	1.24	1.83
Seychelles	1.12	4.65
Haiti	1.12	6.57
Cambodia	1.11	2.19
the former Yugoslav Republic of Macedonia	1.04	18.03
Switzerland	1.03	4.50
Singapore	0.96	12.25
Ireland	0.78	4.80
Antigua and Barbuda	0.70	1.11
Israel	0.61	14.41
Lesotho	0.50	5.73
Cayman Islands	0.31	10.80
Comoros	0.28	3.61

Source: ITC databases.

ENDNOTES, BIBLIOGRAPHY AND CITED REFERENCES

ENDNOTES

1 *WTO Press release 616*, 20 September 2010.

2 The recent WTO report on G20 trade measures notes a welcome decline of newly initiated measures, while raising concern about the limited progress made towards 'unwinding measures as the circumstances that led to their imposition recede'. WTO, 2010, *Report on G20 trade measures* (May 2010 to October 2010), p2.

3 The WTO in its report on the G20 trade measures notes the higher risks for the world economy generated 'by government decisions that some may perceive as a deliberate pursuit of an exchange-rate-induced comparative advantage.' WTO, 2010, *Report on G20 trade measures* (May 2010 to October 2010), p3.

4 WTO *Press release 616*, 20 September 2010.

5 This approach is in line with WTO Agreements, which do not operate in isolation and should not conflict with international obligations taken by governments. For example, Article 2.5 of the Agreement on Technical Barriers to Trade refers to the use of applying relevant international standards when governments seek to achieve legitimate objectives. See also Snyder 2010: 402-423.

6 Sen, 2009: 26.

7 The meaning of terms in international legal instruments is usually determined according to well-known and widely accepted means of interpretation. The principal means used in such interpretation is the Vienna Convention on the Law of Treaty. It distinguishes three methods of interpretation: i) the literal method, based on the plain meaning of the words in question; ii) the contextual method, referring to the treaty text including preamble and annexes, other agreements between the parties relating to the treaty or its interpretation and subsequent practice of the parties, which establishes the agreement of the parties about the interpretation of the treaty; and iii) The teleological method, which refers to the objectives and purposes of the treaty.

8 For definitions of transparency, see the *Compact Oxford English Dictionary* available from http://www.askoxford.com/concise_oed/transparency?view=uk. WTO panels and the WTO Appellate Body frequently use dictionaries in interpreting the WTO agreements

9 See Snyder, 1993:19-54.

10 In some cases the clauses indicate exceptions to obligations to notify, but these are not obligations not to notify. One example is the *Government Procurement Agreement*, which provides that: '*Entities shall not provide* to any supplier *information* with regard to a specific procurement in a manner which would have the effect of precluding competition' (Article VII.2 GPA). This is neither an obligation not to notify nor an exception to a principle of obligation to notify. Instead, it is analysed best as a prohibition on providing certain information; the prohibition exists in order to promote competition in public procurement.

11 This strategy is often known among lawyers and political philosophers as 'imminent critique', a critique from within that evaluates the practices and results of an institution in terms of its own legal framework and normative terms of reference.

12 One commentator, Miguel Ceara, a former Director of the Association of Caribbean States, has written: 'In fact, SDT treatment has been transformed into statements of good intentions with little concrete content, as shown by the most of the 145 SDT measures in the WTO Treaty.' Available online at http://www.acs-aec.org/column/index21.htm.

13 Zhou Chongshan, 2007.

14 Yang Fangyi, 2006.

15 Qu Ruxiao and Zhang Fangrong, 2009.

16 Huang Anqui, 2008.

17 Yang Yumo, 2007.

18 Initially such measures were potentially within the GATT 1947 multilateral Tokyo Round Standards Code, which came into effect for its signatories on 1 January 1980. After 1 January 1995 they fell within the World Trade Organization (WTO) multilateral Agreement on Technical Barriers to Trade (TBT Agreement).

19 General Agreement on Tariffs and Trade - in 1995 the WTO was created to replace GATT.

20 There have been eight GATT negotiation rounds since 1947: Geneva 1947, Annecy 1949, Torquay 1950, Geneva II 1956, Dillon 1962, Kennedy 1967, Tokyo 1979, Uruguay 1993. The WTO round under the Doha Development Agenda started in November 2001.

21 NAMAs are all tariff lines not covered by the Agreement on Agriculture.

22 Agreed maximum ad valorem tariff equivalent ceilings that countries have agreed on each product. These are based on a domestic historical level. As a result, bound tariffs differ between countries.

23 The WTO defines peaks as an instance when ad-valorem duties are greater than three times the national average. Both OECD and WTO calculate tariff peaks at Harmonized System (HS) six-digit sub-headings. The six-digit coding used to identify products under the Harmonized System of the World Customs Organization (WCO) differentiates over 5,000 items in international trade and allows countries to classify traded goods on a common basis.

24 Maximum tariff line ad valorem duties.

25 66 countries based on the World Bank ranking (http://data.worldbank.org/about/country-classifications/country-and-lending-groups#High_income, last accessed 1 July 2010).

26 Applied tariffs reflect much better the effective protection. In practice, many bound tariffs are not applied.

27 TRQs are often not used in full. De Gorter and Kliauga (2006) show that the way TRQs are managed determines their importance as a market access tool to the EU. The scope for fully using quotas depends critically on the specific administrative regime, i.e., first come first served, auction, by season, etc. The WTO (2006) reports a tariff quota fill of only 60% in 2004. In the European Union the fill rate was 59% in 2003 and had been falling since 1995. The fill rate of the United States was 64% and Japan 66%.

28 The economic effect of certain measures, and therefore their protectionist potential, can be very significant. A recent study estimates that for 55% of tariff lines the ad-valorem equivalent (AVE) of NTMs is higher than the applied tariffs, with simple average AVEs ranging from zero to 51% (Kee et al. 2009).

29 ITC Clients' Perceptions Survey 2008. ITC, Dalberg, and Globescan 2009. The 2009 client survey revealed that NTMs remain one of the most important challenges to developing exports, especially in the aftermath of the recent financial crisis.

30 Unless stated otherwise, the NTM-related data comes from the NTM survey results; trade statistics and tariffs are quoted from ITC's market analysis tools 'Trade Map' and 'Market Access Map' (www.intracen.org/marketanalysis). Arms and minerals are excluded from trade figures to keep them consistent with the coverage of NTM surveys.

31 In Burkina Faso, Morocco and Sri Lanka small companies were defined as those with fewer than 10 employees; in Peru and Paraguay the definition is based on the value of exports, which should not exceed $30,000 per year.

32 Regulation (EC) No. 178/2002, *Official Journal of the European Communities* and RASFF Portal https://webgate.ec.europa.eu/rasff-window/portal/.

33 World Bank, Doing Business Project 2010: http://data.worldbank.org/indicator/IC.BUS.EASE.XQ.

34 Countries such as Switzerland, New Zealand and advanced developing countries such as China and the Russian Federation also provide preferential treatments to LDCs. However, due to availability of data for preference utilization, the report only focuses on four markets: Australia, Canada, the EU and the USA.

35 The classification of countries in the table is for 2008 to allow for a match with the available trade data. The Maldives was not a GSP beneficiary that year, although as of 2010 the US re-designated the Maldives as GSP beneficiary (not GSP LDC).

36 For example, Canada provides duty-free and quota-free access for all products except dairy, poultry and eggs.

37 Comprehensive studies related to rules of origin provide detailed assessments. These include The Origin of Goods Rules of Origin in Regional Trade Agreements edited by Olivier Cadot, Antoni Estavadeoral, Akiko Suwa Eisenmann and Thierry Verdier, ëRules of Origin, Trade and Customsí in The Customs Modernization Handbook edited by De Wulf, L. and J. Sokol, et al.

38 For instance, in the case of a value-added requirement method, the US requires a beneficiary country to ensure that at least 35% of the value is added to the export goods within an eligible country, while the EU requires that at least 60% of the value added to the final products be completed in the beneficiary country or region (partial commutation). In the case of the US, AGOA for apparels, AGOA permits certain AGOA beneficiaries to source fabrics from a third-country (i.e., outside the preference region) to manufacture apparel and still benefit from AGOA preferences; this rule does not apply to Asian countries. Information is from EC GSP GUIDE FOR USERS (EC), US GSP Guidebook (USTR), and AGOA website (www.agoa.gov).

39 The EU dataset contains five different kinds of import categories: Imports entering under MFN with zero rates, imports entering under MFN with non-zero rates, preferential 'Any preference non-zero (i.e., partial tariff reduction under the scheme)', 'Any preference zero (i.e., full tariff reduction)', and imports whose status is unknown. In our calculations, the category 'unknown' will be treated as 'eligible' and 'not' receiving preferences products if the MFN rate is not equal to zero and a preferential tariff rate is available. Due to the treatments of tariff lines of 'unknown', the figure of $2.7

billion (exports eligible for preferences but not claimed) might be considered as an overestimate, but even after removing 'unknown' categories from the calculations, the amount of exports in this category was about $2.3 billion.

40 Excluding countries with non-GSP beneficiaries including Lao People's Democratic Republic, Myanmar, the Maldives and Sudan and countries with exports subjected to only MFN-duty-free rate. Since the analysis is based on 2008 data, the Maldives is considered as non-GSP beneficiary. As of 2010, the Maldives has been re-designated a US GSP beneficiary.

41 Malawi did not fully utilize preferences for exports of board and panels (Australian market), dried beans (Canadian market), tobacco (EU market).

42 The calculations are derived by multiplying the value of exports to Australia, Canada, the EU and the USA, where preferences were requested, by the preferential margin (MFN – applied preferential rates) for each product at the tariff line level. It has been assumed that the amount of tariff revenue avoided is captured by beneficiary countries, although in practice these savings may actually accrue to importers in preference-giving countries. See 'Economic Partnership Agreements: Does Preferential Access of Non-LDC African Countries Increase?' by Mombert Hoppe and 'AGOA and Apparel: Who Captures the Tariff Rent in the Presence of Preferential Market Access?' by Marcelo Olarreaga and Caglar Ozden.

43 The duties paid are calculated by multiplying the import value by the applicable rates of duty (MFN or preferential rates where preferential rates are claimed) at the HS 8-digit level. This overall calculation on duties paid covers all 50 developing countries (except for Myanmar in Canada: we requested all preferential beneficial countries, and since Myanmar is not part of GSP beneficiaries, we could not estimate duties paid) regardless of GSP eligible. In the case of the USA, USITC Dataweb provides information on calculated duties, and this information is taken into account in US estimated duties paid.

44 Over the past two decades research into the determinants of economic growth has been revisited and expanded, driven by availability of more comprehensive datasets coupled with new methods of empirical analysis. While debate continues on the importance of various potential determinants of growth, consensus has grown among analysts on several critical issues, among them the positive impact of trade. Supporting conclusions are that openness and international integration improve growth, that globalizing developing countries have grown faster than their non-globalizing counterparts (and thus reduced inequality among developed and developing countries within the ëglobalizedí category), and that there are multiple channels through which trade affects growth, including through bolstered investment, deeper specialization and better allocation of labour and capital, and possible knock-on effects of trade on research and development and technology transfers. Nonetheless, some researchers note that trade is not a panacea, and must be accompanied by other economic and governance reforms, such as monetary and fiscal policy reform, reduced corruption and improved government efficacy. Important references include:

- Snowden, Brandon. The Enduring Elixir of Economic Growth. *World Economics*, Vol 7, No 1, Jan-March 2006, pp 81-84.
- Sachs, Jeffery, Andrew Warner. Economic Reform and the Process of Global Integration. Brookings Papers on Economic Activity – Macroeconomics, 1995.
- Doppelhofer, Gernot, Ronald Miller, Xavier Sala-i-Martin. Determinants of Long-Term Growth: A Bayesian Averaging of Classical Estimates (BACE) Approach. OECD Economics Department Working Papers, No 266, 2000, pp 17-18
- Baldwin, Richard. Trade and Growth – Still disagreements about the relationships. OECD Economics Department Working Papers, No 264, 2000, pp 13-16.
- Dollar, David; Aart Kraay. Trade, Growth, and Poverty. World Bank Development Research Group, June 2001, pp 25.
- Nordas, Hildegunn, Sebastien Miroudot, Pyzemyslaw Kowalski. Dynamic Gains from Trade. OECD Trade Policy Working Papers No 43, 2006.

45 Comprehensive surveys of the literature on poverty and trade are provided by Winters Makay, etc. On methodological criticism of some of literature on trade and growth see Rodrigues and Rodrik.

46 The poverty data is an extended dataset based on methodology discussed in Karshenas (2010a), which uses national accounts averages to calibrate household-survey means. Since in Karshenas's method surveys are assumed to be on average correct, the aggregate global estimates remain very close to the World Bank estimates but individual country data can be very different, depending on the measurement errors as proxy measured by the distance between the survey mean and national accounts consumption averages. For more details see Karshenas 2010a and 2010b.

47 For example Salai Martin (2002) and Bhalla (2003) substitute national accounts means for survey means, or in other words give zero weighting to survey averages, and hence overstate the impact of growth on poverty reduction (see, Deaton 2005, Karshenas 2003 and 2010).

48 As shown in the previous section, during the years when observations for both datasets are available, the relationship between per capita GDP and poverty does not appear to be significantly different using the World Bank poverty data or Karshenasís estimates. The results reported in this section are therefore unlikely to be due to specificities of the dataset used.

49 Poverty distribution is projected assuming specific distribution functions such as the lognormal distribution with given mean and distribution parameters. This prejudges the outcome.

50 The population shares here refer to the percentage of total population of developing countries for which global poverty estimates are available.

51 Strictly speaking for such poverty comparisons one needs to make distributional assumptions about the shape of the Lorenz curve. But empirical evidence shows that headcount poverty can be predicted to a high degree of accuracy as a function of the Gini coefficient and mean-income and higher powers of the two (see, Karshenas, 2010a).

52 Bacchetta, Marc. Globalization and Informal Jobs in Developing Countries. International Labour Office-World Trade Organization Joint Study, 2009, pp 60-79.

53 Here only PII calculations for the $2/day line are provided, although it was found that the same measure at the $1.25/day line was consistently about 40% of the $2 PII calculation.

54 This is based on a strong assumption that the share of national income going towards the poor and the share of trade income going towards the poor is equivalent.

55 Liberia is the primary reason for the significant shift in Norway's figure. Liberia's unique status in world trade as a 'supplier' of flagged shipping vessels has in some years accounted for a high value of trade with Norway; presumably the two civil wars in the African country from 1989-1996 and 1999-2003 have led to a decline in flagged shipping services or exports in general.

56 Smith 2009: 459, 462: 'the comparison of Fair Trade governance and perfect market operation becomes inappropriate'. For example, Smith 2009: 466-470, see especially Table 2 at p 466.

57 Groos, 1999: 388

58 Archer and Fritsch, 2010: 105.

59 Reverchon, 2010; Barker, 2010.

60 Fligstein, 2001.

61 Snyder, 2010, Chapter 4.

62 Raj Patel, 2009:32.

63 See Wilkinson, 2007.

64 See Renard, 2005; Fisher, 2009: 988-990.

65 Fisher, 2007: 988 note 5, citing http:/www.fairtrade.net.

66 For an overview of these standards see: Alvarez, G. (2010), 'Fair trade and beyond: Voluntary standards and sustainable supply chains', in Mena, C. and Stevens, G. (eds.) Delivering performance in food supply chains, Woodhead Publishing Limited, Cambridge, UK, pp. 478-510 or www.tradestandards.org.

67 GlobalG.A.P. (Global Good Agricultural Practices) was built on the basis of the previous EurepG.A.P. and is a business-to-business standard (not communicated directly to consumers) focusing on processes along the entire value chain to manage mainly health and safety risks.

68 ISEAL 2008.

69 Impact evaluations that construct a reasonably credible counterfactual outcome to identify impacts of certification. A counterfactual outcome is an estimate of what the socioeconomic outcomes for certified entities would have been had they not been certified.

70 Results cannot be generalized and need to be understood as instructive and indicative: authors use different methodologies, and control for different producer-related (internal) and non-producer-related (external) factors. Studies also vary significantly in the way they calculate gains in productivity, aggregate total variable and fixed production costs and how opportunity costs are being accounted for.

71 ISEAL is the global association for social and environmental standards.

72 As the authors state, these results are only indicative and need to be interpreted cautiously as the study is not based on a full life cycle analysis (LCA).

73 This stems from the following macro-economic identity: GDP = Private Consumption + G + S + Net Trade.

74 This definition includes SITC 2-digit level chapters 54, 71-79, 87-88.

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