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WORLD TRADE INDICATORS 2008

Benchmarking Policy and Performance

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Preface

The World Trade Indicators (WTI) database and ranking tool cover country-level indicators of trade performance and policies and institutions that affect trade. The purpose of this initiative by the World Bank is to benchmark progress in these areas while highlighting important data gaps. The value of timely, good-quality data for policy making and effective international negotiations cannot be underestimated. Such data are also needed for reducing transactions costs for businesses.

This publication summarizes patterns in world trade policy and trade outcomes revealed by the WTI database, focusing mainly on regional and income-level variations and providing the context to help evaluate individual country progress. It is hoped that this initiative, by benchmarking country performance in various policy and outcome areas, will enhance the ability of policy makers to design and implement the needed trade-related reforms. It is also hoped that countries will be further encouraged to produce better and more up-to-date data and make it publicly available, both domestically and in international databases, in a timely manner.

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Abbreviations

APTDEA	Andean Pact Trade and Drug Enforcement Agreement
ASEAN	Association of Southeast Asian Nations
CIS	Commonwealth of Independent States
COMTRADE	United Nations Commodity Trade Statistics Database
EAP	East Asia and the Pacific
ECA	Europe and Central Asia
EIU	Economic Intelligence Unit
EU	European Union
EUROSTAT	European Statistics Database
FDI	foreign direct investment
FTA	free trade agreement
GATS	General Agreement on Trade in Services (WTO)
GDP	gross domestic product
HS	Harmonized Schedule
IDA	International Development Association
IMF	International Monetary Fund
ITC	International Trade Centre
ITCI	International Trade and Competitiveness Indicators
ITU	International Telecommunication Union
LAC	Latin America and the Caribbean
LDC	least developed countries
LPI	Logistics Performance Index
MA	Market Access
MA-TTRI	Market Access Trade Tariff Restrictiveness Index
MFN TTRI	Trade (MFN only) Tariff Restrictiveness Index
MFN	most favored nation
MNA	Middle East and North Africa
NAFTA	North American Free Trade Agreement
OECD	Organisation for Economic Co-operation and Development
OTRI	Overall Trade Restrictiveness Index

PCA	Principal Component Analysis
RFNI	raw food net importers
ROW	rest of the world
SAS	South Asia
SPS	Sanitary and Phytosanitary Standards
SSA	Sub-Saharan Africa
TAAG	Trade-At-A-Glance
TBT	technical barriers to trade
TCI	Trade Competitiveness Index
TDI	Trade and Development Index
TPI	Trade Performance Index
TRAINS	Trade Analysis and Information System
TRI	Trade Restrictiveness Index
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
USITC	United States International Trade Commission
WB	World Bank
WBI	World Bank Institute
WDI	World Development Indicators
WITS	World Integrated Trade Solution
WTI	World Trade Indicators
WTO	World Trade Organization

Countries and Customs Territories in the WTI Database

For all countries and customs territories listed below, there are Trade-At-A-Glance (TAAG) tables in the WTI database that provide a snapshot of a country's policy and performance. For countries and customs territories marked with an *, the database includes a trade brief that also reflects the key findings from available analytical work.

Afghanistan*
Albania*
Algeria*
American Samoa
Andorra
Angola*
Antigua and Barbuda*
Argentina*
Armenia*
Aruba
Australia
Austria
Azerbaijan*
Bahamas, The
Bahrain*
Bangladesh*
Barbados
Belarus*
Belgium
Belize*
Benin*
Bermuda
Bhutan*
Bolivia*
Bosnia and Herzegovina*
Botswana*
Brazil*
Brunei Darussalem
Bulgaria
Burkina Faso*
Burundi*
Cambodia*
Cameroon*
Canada
Cape Verde*
Cayman Islands
Central African Republic*
Chad*
Channel Islands
Chile*
China*
Colombia*
Comoros*
Congo, Democratic Republic of*
Congo, Republic of*
Costa Rica*
Cote d'Ivoire*
Croatia*
Cuba
Cyprus
Czech Republic
Denmark
Djibouti*
Dominica*
Dominican Republic*
Ecuador*
Egypt, Arab Republic of*
El Salvador*
Equatorial Guinea*
Eritrea*
Estonia
Ethiopia*
Faeroe Islands
Fiji*
Finland
France
French Polynesia
Gabon*
Gambia, The*
Georgia*
Germany
Ghana*
Greece
Greenland
Grenada*
Guam
Guatemala*
Guinea*
Guinea-Bissau*
Guyana*
Haiti*
Honduras*
Hong Kong, China
Hungary
Iceland
India*
Indonesia*
Iran, Islamic Republic of*
Iraq*
Ireland
Isle of Man
Israel
Italy
Jamaica*
Japan
Jordan*
Kazakhstan*
Kenya*
Kiribati*
Korea, Democratic People's Republic of
Korea, Republic of*
Kuwait
Kyrgyz Republic*

Lao People's Democratic Republic*
Latvia
Lebanon*
Lesotho*
Liberia*
Libya*
Liechtenstein
Lithuania
Luxembourg
Macao, China
Macedonia, Former Yugoslav Republic of*
Madagascar*
Malawi*
Malaysia*
Maldives*
Mali*
Malta
Marshall Islands*
Mauritania*
Mauritius*
Mayotte
Mexico*
Micronesia, Federated States of*
Moldova*
Monaco
Mongolia*
Montenegro*
Morocco*
Mozambique*
Myanmar*
Namibia*
Nepal*
Netherlands
Netherlands Antilles
New Caledonia
New Zealand
Nicaragua*
Niger*
Nigeria*
Northern Mariana Islands
Norway
Oman*
Pakistan*
Palau*
Panama*
Papua New Guinea*
Paraguay*
Peru*
Philippines*
Poland
Portugal
Puerto Rico
Qatar
Romania
Russian Federation*
Rwanda*
Samoa*
San Marino
São Tomé and Principe*
Saudi Arabia
Senegal*
Serbia*
Seychelles*
Sierra Leone*
Singapore
Slovak Republic
Slovenia
Solomon Islands*
Somalia*
South Africa*
Spain
Sri Lanka*
St. Kitts and Nevis*
St. Lucia*
St. Vincent and the Grenadines*
Sudan*
Suriname*
Swaziland*
Sweden
Switzerland
Syrian Arab Republic of*
Taiwan, China
Tajikistan*
Tanzania*
Thailand*
Timor-Leste
Togo*
Tonga*
Trinidad and Tobago*
Tunisia*
Turkey*
Turkmenistan*
Uganda*
Ukraine*
United Arab Emirates
United Kingdom
United States
Uruguay*
Uzbekistan*
Vanuatu*
Venezuela, República Bolivariana de*
Vietnam*
Virgin Islands (U.S.)
West Bank and Gaza
Yemen, Republic of*
Zambia*
Zimbabwe*

Executive Summary

Over the last decade, countries have improved many aspects of policy relevant for trade. Worldwide, Most Favored Nation (MFN) average tariffs have fallen from 14.1 percent during 1995–99 to 11.7 percent during 2000–04 and further to 9.4 percent in 2007—a decline of more than 33 percent. In addition, a substantial amount of trade is conducted at a zero MFN tariff rate (MFN-0) or through preferential trade agreements. Both the severity of remaining restrictions and the importance of trade flows at duty-free or preferential rates vary among countries. The most recent estimates indicate that all regions and income groups have witnessed substantial real growth in trade during this time. In 2007, average real growth in trade, 7.7 percent for the world as a whole, is within the 7–9 percent growth range of the last decade. Groups that have the best policies and institutions overall also tend to have stronger and more consistent trade performance.

The trade reform agenda going forward is about rationalizing substantial tariff peaks (particularly in agriculture), reducing overall tariff levels in some groups or countries, reducing tariff escalation aimed at protecting special goods, liberalizing services trade, and improving the other behind-the-border factors that affect trade expansion and the gains from it. Tariff rationalization is particularly needed in high-income countries where there are high tariffs on products of particular interest to developing countries. In the Middle East and North Africa (MNA), South Asia (SAS), and Sub-Saharan Africa (SSA) regions, average MFN-applied tariffs are also greater than 10 percent (for MNA, more than 15 percent). Trade in services has not been liberalized to the same extent as trade in goods, especially in low-income countries. Locking in current levels of liberalization through the General Agreement on Trade in Services (GATS) would be a first important step toward a more ambitious reform agenda, especially for low-income countries. Improvements in domestic institutions could boost export performance, particularly in manufacturing and services, and help support new markets and new products. Overcoming

inefficiencies in trade facilitation in developing countries would have a high payoff for trade performance, especially as tariffs have been reduced below trade costs in most countries.

Trade Policy

Tariff protection, both with and without the inclusion of preferences, has fallen consistently in all regions and income groups from the mid-1990s to 2007, and especially in low-income countries, where average MFN applied tariffs fell 46 percent (10 percentage points). High-income countries, which were earlier reformers, still have the lowest average tariffs at 6 percent compared to a developing country average of 11 percent. Other measures, such as the World Bank's Trade (MFN) Tariff Restrictiveness Index (MFN TTRI), confirm this pattern.

- Among developing countries, the EAP and SAS regions' performance is noteworthy for the large declines in their (simple) average MFN tariffs, which fell by 50 and 47 percent (10 and 12 percentage points) respectively. Although SAS's percentage decline is the largest, it also had the highest tariff levels, averaging 26 percent. Among developing regions, the smallest decline was in MNA (22 percent), which is the most restrictive region with average tariffs around 16 percent. It is followed by the SAS and SSA regions. The ECA region has the lowest average tariff (7 percent), followed by the LAC region (9 percent). When including preferences, applied trade-weighted tariffs are on average about 20 percent lower for high-income countries and 14 percent lower for developing countries than MFN counterparts, but trends over time and regional patterns are broadly similar.
- Developing countries that have seen the largest falls in import restrictions since the early 2000s as measured by MFN simple tariffs include the Arab Republic of Egypt (from 47 to 17 percent), the Seychelles (28 to 8 percent), India (32 to 15 percent), and Mauritius (18 to 3.5 percent). In China, tariffs also decreased from 14 to 10 percent. Among developed countries, overall tariff restrictions in the European Union (EU), Canada, Japan, and the United States came down slightly, but from already low levels.
- While the overall trend has been toward liberalization, in some years, some countries have raised their tariffs on particular products (and thus their average tariffs as well). Between 2005–06 and 2007, three countries raised tariffs by more than 1 percentage point: Mauritania raised the average MFN tariff from 11 to 12 percent, El Salvador's tariff went from 6 to 7 percent, and St. Vincent and the Grenadines raised its tariff from 4 to 10 percent. With respect to the early 2000s, 31 countries have increased their tariffs, of which 14 had increases between 17 and 42 percent. Kazakhstan almost tripled its tariffs, increasing the average from 2.8 to 7.8 percent.

But average tariffs do not reveal the whole pattern of protection. High-income countries have higher nontariff barriers, greater tariff escalation and dispersion, and much higher maximum tariffs than low-income countries; that is, they protect certain sectors much more than others. Many of these protected sectors and goods are of special interest to developing-country exporters.

- All countries on average have higher trade barriers in the agriculture sector relative to mining and manufacturing; the SAS and EAP regions have the most restrictive policies, followed by the high-income Organisation for Economic Co-operation and Development (OECD) countries. The low-income countries' import-weighted average tariff on agriculture (including preferences) is 1.4 times that on other goods. For the high-income OECD group, it is 9 times higher. Among developing countries, the EAP and ECA regions protect agriculture 4 and 3.3 times more, respectively, than all other goods on average. By comparison, SSA protects agriculture just 1.4 times more than other sectors. Net food importers on average protect agriculture more relative to nonagricultural sectors than countries that are not net food importers.
- The level of protection may be significantly affected by nontariff measures, but information about nontariff measures is only available on a cross-country basis for 2001 or earlier. When considering these measures, the pattern of restrictiveness in agriculture changes: the most restrictive region is MNA, followed by the high-income OECD group, and the least restrictive is SSA.
- OECD countries have high maximum MFN-applied tariffs, averaging 347 percent (having dropped from 1,488 percent in the latter half of the 1990s), and low-income countries have the lowest at 122 percent. MFN tariff dispersion is 2.4 times higher in high-income countries than in low-income ones. Among developing regions, MNA has the highest MFN maximum tariff, averaging 716 percent in 2007, followed by EAP at 335 percent.
- Developing country exporters face higher export hurdles at the upper end of production than at the lower end. Most countries protect finished goods more than unfinished goods, but tariff escalation is higher in the high-income OECD countries than in developing countries. This pattern is amplified in the agriculture sector. However, tariff escalation is highest in the MNA region. The SAS region has the lowest tariff escalation both in agriculture and overall. It is followed by the LAC and SSA regions.

Tariff reform is closely linked to fiscal outcomes in many developing countries because of their high reliance on trade taxes for fiscal revenues.

- Revenues from import duties account for almost a quarter of fiscal revenues for low-income countries, compared to the high-income average of only 7 percent. In 2007, the SAS region obtained 26 percent of its fiscal

revenues from import duties followed by the SSA region at 23 percent, compared with 0.8 percent for high-income OECD countries. In many cases, exemptions and inability to collect full tariffs mean lower revenues than implied by the statutory tariffs.

Barriers to services trade are still high across countries and especially in the low-income countries.

- Services trade liberalization can confer large gains to developing countries but low-income countries have made the fewest commitments to liberalize services in the World Trade Organization (WTO). Commitments under the General Agreement on Trade in Services (GATS) do not reflect actual liberalization since some countries have liberalized unilaterally or in the context of bilateral or regional agreements. However, GATS commitments do indicate whether countries are bound to a certain level of liberalization. Among the 20 countries that have made the most commitments to liberalize, at least half are in ECA.
- In terms of sectors, fewer commitments by all income groups were made in health and social services and transport sectors than in others. In other sectors, there is some variation by income group. For example, high-income countries have made stronger commitments in financial services, business, and distributional services but weaker commitments in tourism sectors. Many countries already allow a large degree of foreign participation in telecommunications, with the ECA countries being fully open and most other regions being very open except EAP.

Market Access

A substantial share of exports is subject to an MFN-0 tariff level. In addition, trade preferences, free trade agreements (FTA), or customs unions (CU) have lowered trade restrictions for many countries. But there are large differences across regions and income and product country groups in how much trade is restricted or conducted under a zero MFN tariff rate or through preferential arrangements. For instance, low-income country exporters face a weighted average tariff including preferences of 3.7 percent, which is higher than that faced by high-income country exporters at 2.8 percent. And garment exporters in developing countries face restrictions on their exports on average that are more than double those faced by the rest of the developing world.

- MFN-0 trade accounts for 26–45 percent of world exports; MNA and SSA have the highest percentage of exports at the MFN-0 tariff level, while SAS and LAC have the lowest. High-income countries have 40 percent of their exports in this category.
- MNA faces the lowest applied tariffs inclusive of preferences (1.2 percent) and SAS has the highest (4.7 percent). The value of EU and U.S. preferences, for which more complete data are available, is modest for low-income

countries, equivalent to only 3.2 percent of their exports to these two preference-granting countries. The average Latin American country benefits the most from such preferences and ECA the least. The value of such preferences is above 10 percent of bilateral exports for less than two dozen countries, with a high of 48 percent for Anguilla and 33 percent for Swaziland.

- Not only do the SSA and SAS regions have less favorable market access but they also have the lowest proportion of their total exports going to countries with which they have an FTA or CU. For the SAS region it is around 2 percent for 2006 and for SSA it is under 10 percent. EAP countries have 38 percent of their exports in this category, ECA has 43 percent, and high-income OECD countries have 57 percent.

Behind the Border

Improvements in countries institutional environments and in the quality of trade facilitation could support trade and export growth. The institutional environment varies widely across regional and income groups and among countries in the same group. Countries whose institutional environments are better tend to have a higher share of manufactures in their goods exports, have lower export concentration, and tend to be more integrated in the world economy.

- Among developing countries, the SSA, SAS, and MNA regions rank below the world average on institutional dimensions related to the business climate and general governance indicators as measured by the Doing Business (DB) indicators and the Worldwide Governance Indicators (WGI) of the World Bank.

There is a significant gap in the quality of trade facilitation between the high-income countries and even the best-performing developing countries. Better trade logistics, as measured by the World Bank's Logistics Performance Index (LPI), are correlated with positive changes in trade integration.

- At the bottom of the rankings are low-income countries that are geographically isolated or beset by conflict or other internal problems. Landlocked developing countries, especially in Africa and in Central Asia, are the most constrained in terms of trade logistics, as they typically suffer from difficult geography, poor access to logistics services in neighboring countries, and high coordination and transportation costs. Among developing regions, the ECA and EAP regions score the highest, while the SAR and SSA regions lag significantly behind them.

Trade Performance

According to World Bank preliminary estimates as of December, developing countries' trade growth slowed down in 2007 while developed countries' trade growth increased, so that for both groups on average trade grew at 7.7 percent in real

terms. There has been some change in the structure of world exports, with agriculture's share falling 31 percent over the last decade.

- In the early years of the 2000s developing countries' trade and export growth (both around 8 percent) was significantly higher than that of high-income countries (both around 6 percent). In 2007, the ECA region had the fastest growth in trade and exports (10 percent) on an unweighted basis, followed by the EAP region (both just under 9 percent). The developing region with the lowest estimated growth in trade during 2007 was the SSA region, followed by the SAS region.
- The weakest export performance was exhibited by the MNA region, followed by SSA and LAC. China with 23 percent real growth and Sudan, a mineral exporter, with 39 percent are among the countries with the highest export growth. Algeria and Mauritania are at the bottom (−6 and −17 percent, respectively).
- For the world as a whole, real growth in services exports has been higher than growth in merchandise exports until the mid 2000s but has slowed down in recent years. The largest services exporters in 2007 were Poland, with real growth in services exports estimated at 48 percent, Azerbaijan at 30 percent, and the Czech Republic at 25 percent. Low-income countries with growth above 10 percent included the Democratic Republic of Congo, Bangladesh, Haiti, Burundi, and India. Several African countries, among them Eritrea, Sudan, and Angola, have seen declines in services exports.
- High growth in trade has meant increasing levels of integration: MNA's increase of 39 percent in its trade-to-GDP ratio since 1995–99 is the highest among the regions, and ECA and OECD countries follow with a 21 percent increase. Surprisingly, the slowest integrators have been the LAC (6 percent) and SAS (13 percent, despite its recent high export and trade growth rates) regions. Differences in integration among regions and income groups are large: SAS, the least integrated region (73 percent of GDP) is about half as integrated as the EAP (116 percent) or ECA regions (105 percent). As expected, smaller economies tend to be more integrated than larger ones. Among the larger countries that have the lowest trade-to-GDP ratios are Brazil, the United States, Australia, and India. Among the smaller countries that are the most integrated are Singapore, Hong Kong (China), Malaysia, and Swaziland.
- The composition of world and regional exports has changed over the last decade. Agriculture's share in world exports has dropped 31 percent from 1995–99 to 2006 (and 19 percent since the early part of this decade). Manufacturing and mining have grown while services exports have remained fairly constant as a share of total exports (and relative to GDP). In 2005–06 services have accounted for 28 percent and manufacturing for 34 percent of world exports. The LAC and SSA regions and high-income

OECD countries (from a low base) have seen the largest increase in the mining share of exports. EAP and OECD countries have the highest share of manufacturing in exports (just over 50 percent) and SSA has the lowest (not quite 18 percent). The SSA and SAS regions have the highest share of agricultural exports at 27 and 21 percent, respectively. High-income non-OECD countries have the highest share of services exports (37.4 percent), followed by SAS, EAP, and MNA (around 30 percent).

- Countries seek to diversify their export structures to manage risk arising from volatility of export earnings as demand or supply conditions change. Export concentration tends to change only slowly over time, and countries with higher income tend to be more diversified. Among developing countries, the SSA and MNA regions have the most concentrated export structures. In the former, the top five exports have accounted for almost 80 percent of exports, in the latter almost 70 percent for SSA. Export concentration is positively and significantly correlated with volatility in real export growth. The 20 least diversified countries have 2.3 times greater volatility in real export growth relative to the 20 most diversified countries. The most specialized countries tend to be either mineral resource-abundant economies or very small islands.

Effective assessments of global trade policies and outcomes are dependent on good-quality data. The WTI database is useful in highlighting in one place the many policy factors that together influence trade as well as data gaps and fluctuations in country coverage. The existing data show that countries with poor endowments and geographical constraints can overcome bottlenecks to trade. The database, by allowing benchmarking and ranking of country performance in various policy and outcome areas, provides a clearer picture of where each country stands and should support incentives to implement policy reforms.

CHAPTER 1

Introduction

Since the mid-1990s, world trade in goods and services has expanded at almost double gross domestic product (GDP) growth rates for developing countries and customs territories, with even higher increases in recent years. Historically, the growth of trade and the move to diversify exports have been uneven. Brazil, China, India, the Russian Federation, and some East Asian countries have been among the strongest long-term performers. In the last dozen years, trade and export growth have become more even across regions and income groups (see figure 3.1 in chapter 3). The long-term expansion of trade is likely to continue and, according to a recent World Bank forecast, global trade in goods and services, growing faster than output, is likely to rise more than threefold to US$27 trillion by 2030. Roughly half that increase is expected to come from developing countries (World Bank 2006a).

Countries and customs territories[1] will be seeking to gain from the increasing global integration. Each country's share of the world market and benefits from increased integration will naturally be influenced by its initial position, the policies it adopts, and its endowments relative to other participants in world trade. The availability of relevant data and indicators on trade-related policies and outcomes is a critical input into the policy-making process, helping to assess the status quo and to appraise each country's standing relative to its competitors and trading partners.

The World Trade Indicators (WTI) is a comprehensive database that compiles about 300 trade-related policy, institutional, and outcome indicators, with the following objectives:

- enhancing awareness of the different policy factors that work together to influence a country's trade outcomes
- providing incentives for reform by benchmarking and highlighting a country's policy position relative to competitors

- allowing comparisons over time in order to better design policy
- highlighting important gaps in the existing data.

The data sources are chosen to maximize coverage, cross-country comparability, and quality. The indicators are drawn from international databases and are presented for each year between 1995 and 2007 (online only) and also for four time periods: 1995–99, 2000–4, 2005–6, and "latest," usually 2007.[2] The WTI database covers 210 countries and customs territories, though data on all indicators for all time periods and countries are not available.[3] The indicators have been organized into five main categories:

- trade policy or border protection, reflecting tariffs and nontariff barriers on goods and (to a more limited extent) services
- the external environment, consisting of market access for a country's exports and the evolution of the real exchange rate
- the overall institutional environment, in terms of business and governance
- trade facilitation, including logistics, trade costs, and some infrastructure and human capital
- trade outcomes, consisting of trade growth in goods and services, structure of trade flows, and export diversification.[4]

When relevant and feasible, broad sectoral breakdowns (for example, agriculture versus nonagriculture, and various services sectors) for WTI indicators are provided.[5] Within each category, a representative indicator is highlighted in the database and in the country tables for default-ranking purposes. It is supplemented by other indicators, whose pairwise correlations with the representative indicators are usually significant and have the expected signs. Users of the WTI Web site can rank countries by their performance on any of the indicators in the WTI database.

The WTI project has focused mostly on assembling and organizing existing data and indicators from the World Bank and other organizations in a compact, user-friendly, and easily accessible format. In addition, the WTI 2008 database also includes some new indicators:

- production-weighted average tariffs[6]
- the share of tariff lines with a zero most favored nation tariff rate (MFN-0)
- MFN zero-duty imports and exports
- imports and exports to and from partners in free trade areas (FTAs) and customs unions (CUs)
- take-up rates, utilization rates, and value of European Union (EU) and U.S. preferences under unilateral schemes or reciprocal arrangements
- an index of services trade commitments in the general agreement on trade in services (GATS), with a breakdown by (a) national treatment, (b) market access (barriers to entry), and (c) 12 sectors

- an index of logistics performance, based on a new World Bank survey of logistics operators
- an index of import concentration provided by the United Nations Conference on Trade and Development (UNCTAD) to supplement UNCTAD's established export concentration index
- export and import destination concentration indices
- the share of the top five exports in total exports.

This report uses the WTI database to highlight some patterns in world trade and trade policy, complementing existing World Bank publications that focus either on a small subset of such indicators or specific regions or sectors. It averages the country-level indicators in the database to concentrate mainly on the global and regional levels, providing the broader context to country-level analyses. Chapter 2 presents a comparative analysis of the various trade-related policy, market access, institutional, and trade facilitation indicators across income and regional groups and for selected countries. Chapter 3 provides a broad picture of trade outcomes for country groups and for some top and bottom performing countries. Chapter 4 investigates the patterns of key indicators within each region. Appendix A provides a definition of the indicators discussed in this report and their sources, Appendix B addresses the selection criteria used for the indicators, and Appendix C surveys existing databases and benchmarking initiatives by other international organizations. Appendix D provides Trade-At-A-Glance (TAAG) tables for five income groups, patterned after the individual country TAAG tables available online on the WTI Web site.

All period, regional, and income country group averages mentioned in this report are simple averages of annual and country observations.[7] In the analysis of stylized patterns revealed by the data that follows, the term "significant" indicates statistical significance at least at the 10 percent level, based on two-sided t-tests. Country reporting in the international databases often suffers from gaps and sometimes from inconsistencies. Thus, indicators and group averages are sometimes affected by missing observations for a country for a single year or for entire time periods. In addition, some countries began reporting data after 1995. If their performance is different than the rest of their regional or income groups, their addition to the group can affect the group averages, sometimes substantially. In some cases, explanations as to the possible source of a problem in the level of or the change in a particular indicator are discussed, based on available information regarding weaknesses in primary data or on feedback provided by country and trade economists at the World Bank and at the International Trade Centre (ITC). In other cases, explaining puzzling trends or patterns will require further feedback by users of the database and of the country trade briefs (including TAAG tables), as well as further update and revision work by the WTI team.

The regional groupings discussed here are East Asia and the Pacific (EAP), Europe and Central Asia (ECA), Latin America and the Caribbean (LAC),

Middle East and North Africa (MNA), South Asia (SAS), Sub-Saharan Africa (SSA), high-income Organisation for Economic and Co-operation and Development countries (HI OECD), and high-income non-OECD countries (HI non-OECD). The World Bank regional and income group classifications are used throughout the paper (see complete country listings at http://go.worldbank.org/D7SN0B8YU0). Thus, most West European countries are not included in the ECA regional group, and countries such as Bahrain, Hong Kong (China), Israel, Kuwait, Singapore, or Slovenia are grouped as high-income non-OECD rather than in their respective geographical regions. Low-income and lower-middle-income countries account for more than four-fifths of the EAP countries. In the ECA and MNA regions, most countries are in the lower-middle-income category, with upper-middle-income countries second in importance. In LAC, half of the countries are upper-middle-income ones and only a fifth are low-income. Finally, more than three-quarters of the countries in the SAS and SSA regions are low-income countries.

CHAPTER 2

Policy-Related Trade Indicators

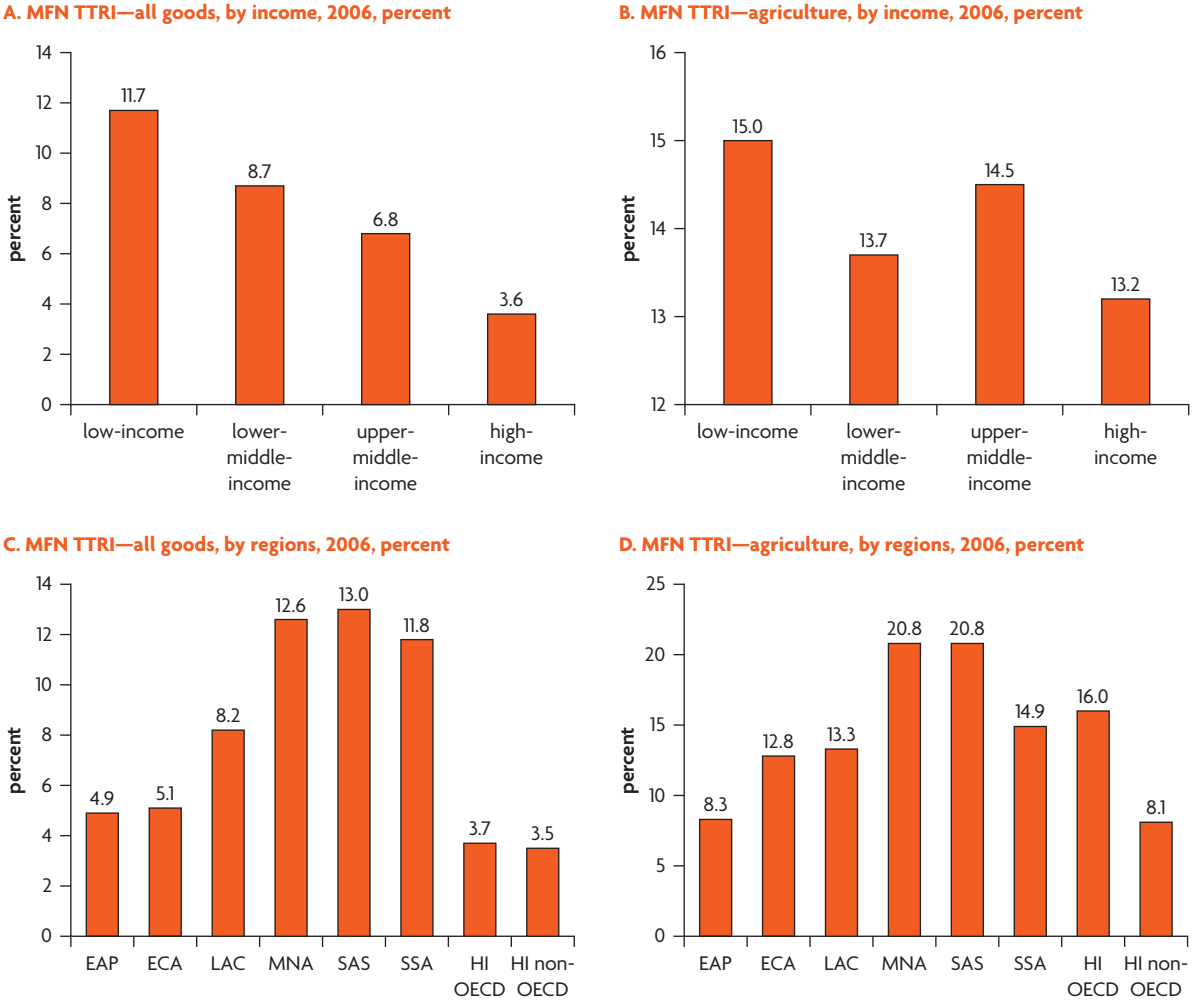
A number of nonpolicy factors such as country size, physical location, and endowments also influence trade outcomes, but the focus of this report is on policy and institutional constraints. This chapter highlights some regularities revealed by the WTI database in the four policy categories of indicators that directly or indirectly may influence a country's trade outcomes (the latter are discussed in chapter 3).[1] Although there are several indicators in each category that measure different aspects of policy (for example, the restrictiveness of a tariff regime), only some key indicators are highlighted in the following discussion. Most indicators within a group tend to be correlated with each other and give broadly similar rankings for the groups discussed in this report. For example, regions and income groups tend to be ranked similarly when using alternative indicators of trade policy.[2]

Trade Policy[3]

Merchandise Trade

A set of indicators that summarizes the tariff barriers imposed by a given country are aggregated and disaggregated variations of the Trade Restrictiveness Index (TRI) constructed at the World Bank.[4] The Trade (MFN) Tariff Restrictiveness Index (MFN TTRI) represents the tariff that when uniformly applied across the entire (MFN only) tariff schedule would keep total imports at the observed level. The MFN TTRI captures the protectionist aspect of a country's nondiscriminatory trade policy.[5] Other variations are estimated for the applied tariff structure: one that includes preferences (TTRI) and another that includes both preferences and nontariff measures (Overall TRI, or OTRI). The OTRI incorporates the latest available information on nontariff barriers

Figure 2.1. Tariff Protection Is Highest among Low-Income Countries and the SAS, MNA, and SSA Regions



Note: The latest available TRIs are based mostly on 2006 tariff schedules. MFN TTRI values in 2005–6 for SAS, MNA, EAP, ECA, HI non-OECD, and HI OECD are significantly different than for their rest-of-the-world counterparts.

and other restrictive measures that date from 2001 or, for some countries, the late 1990s.[6] These TRIs have an advantage over standard indicators such as simple and weighted tariff averages and frequency ratios, as they overcome the latters' inherent measurement biases. One drawback, however, is that they are available for a limited (125) number of countries.

The first panel in figure 2.1 shows that there is a strong negative correlation between countries' income level and the tariff restrictiveness of their trade regimes as measured by the MFN TTRI, with the same relationship holding also when nontariff measures are taken into consideration. Low-income countries on average are more restrictive than their middle-income counterparts and are almost twice as restrictive as upper-middle-income countries.

Table 2.1. High- and Middle-Income Countries Have the Lowest Import Protection

Country	MFN TTRI tariff (2006)	Country	MFN TTRI tariff (2006)
1. Hong Kong, China	0	106. Algeria	12.73
2. Singapore	0	107. Mexico	12.90
3. Switzerland	0.98	108. Iran, Islamic Rep. of	13.07
4. Turkey	1.52	109. Oman	13.24
5. Papua New Guinea	1.69	110. Guyana	13.43
6. Mauritius	1.97	111. Guinea	13.44
7. Iceland	1.98	112. Ethiopia	13.67
8. Kazakhstan	2.06	113. Bangladesh	14.14
9. Norway	2.10	114. Cameroon	14.59
10. Israel	2.35	115. Uganda	14.65
11. United States	2.42	116. Romania	14.80
12. Moldova	2.95	117. India	15.05
13. United Arab Emirates	2.96	118. Sudan	16.10
14. Australia	3.08	119. Gabon	16.17
15. Canada	3.33	120. Nepal	16.44
16. Kyrgyz Republic	3.50	121. Rwanda	20.37
17. New Zealand	3.55	122. Tunisia	20.38
18. Brunei	3.748	123. Morocco	21.39
19. Taiwan, China	3.755	124. Central African Republic	21.81
20. Malaysia	3.78	125. Malawi	30.39

As illustrated in table 2.1, which lists individual countries, the least restrictive trade regimes are found in high-income and middle-income countries, but some low-income countries like Papua New Guinea also have low tariff barriers. At the opposite end, the list is mostly composed of middle-income and low-income developing countries from all regions except East Asia. Sudan, Tunisia, and Morocco are the only countries that appear among the most restrictive countries (in the early and mid-2000s as well as in 2007, according to various tariff indicators) and among the best performing countries on real trade and export growth in 2007 (see table 3.2). Sudan's trade expansion, however, may be explained by its overall economic rebound from conflict in the southern part of the country and by international oil market developments. Tunisia and Morocco may have benefited from strong European demand for their exports and perhaps from recently initiated reforms to improve the business climate and export competitiveness, even though there is no evidence yet of their impact on trade policy indicators.

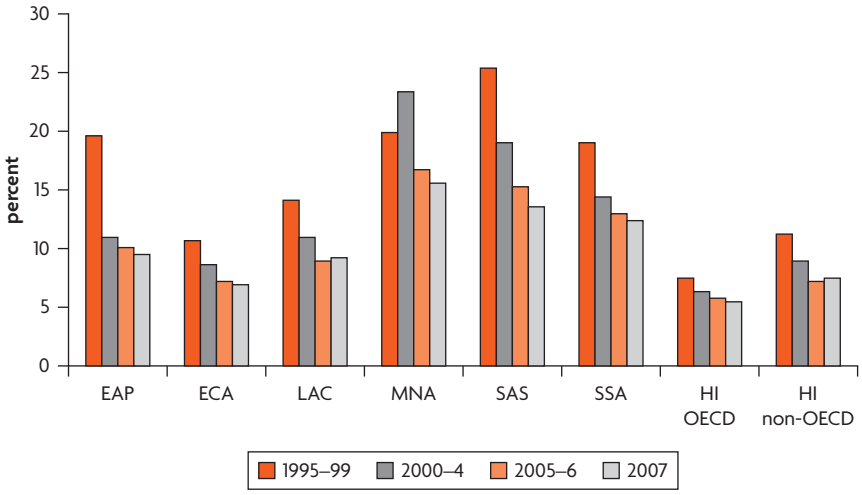
As measured by the MFN TTRI and illustrated in the third panel of figure 2.1, the SAS region has the most restrictive tariff policies, followed by the

SSA and MNA regions. The EAP and ECA regions have much lower tariffs overall. High-income non-OECD countries are the least restrictive followed closely by the high-income OECD countries, whose restrictiveness index is less than a third of that of the SAS region.

Countries and groups with high MFN TTRI scores also exhibit higher simple and weighted MFN tariff averages. These include the effect of both ad valorem and specific tariffs, as the TRIs do, but they capture countries that are not captured by the TRIs, such as many countries in ECA and smaller economies (see figure 2.2). Countries whose trade has been liberalized to a great degree with

Figure 2.2. Tariffs Have Been Falling in All Regions, but Remain High in MNA, SAS, and SSA[7]

A. Simple average tariffs



B. Import-weighted average tariffs

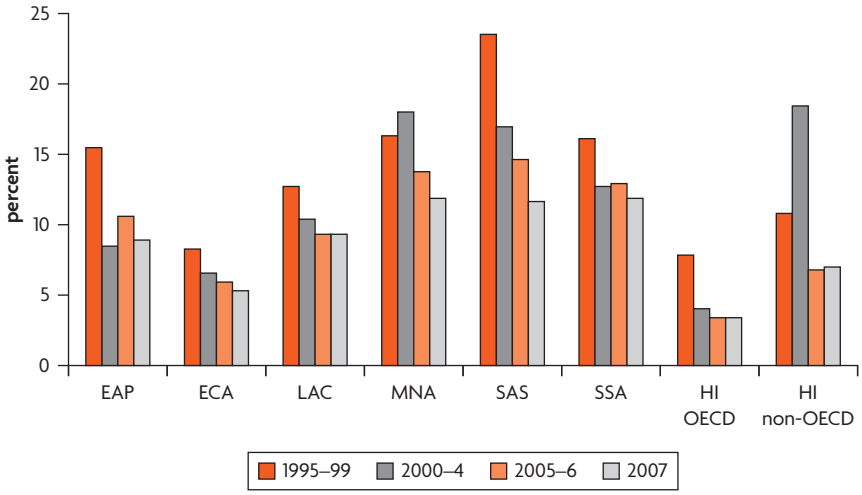
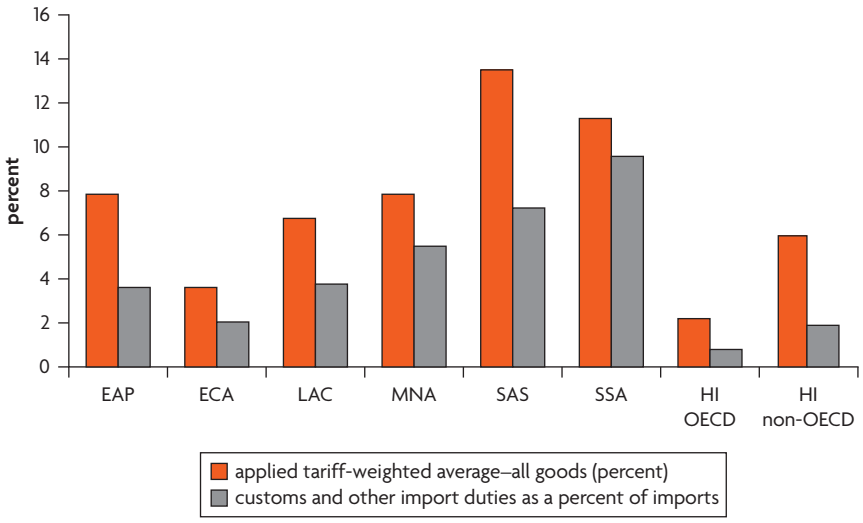


Figure 2.3. Import Duties Collected Are Much Lower Than Statutory Tariffs (2005–06)



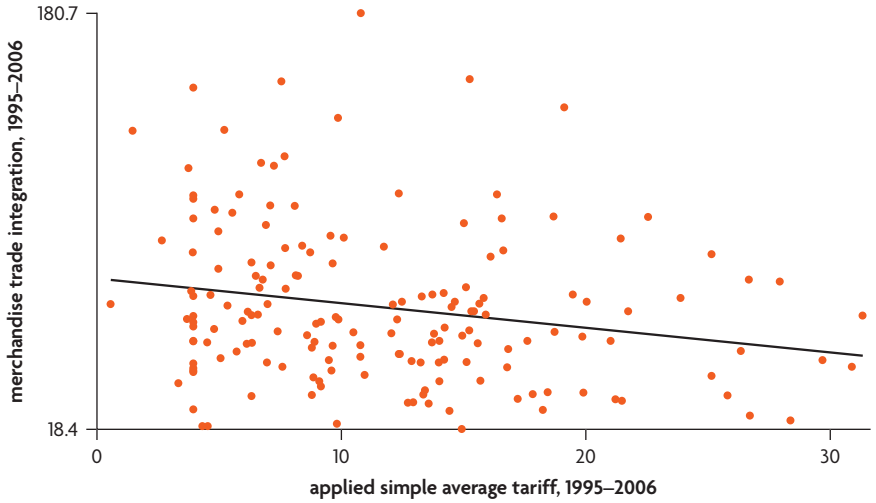
preferential partners rather than multilaterally, however, may rank much higher on indicators that effectively capture applied tariffs than they do on those based on MFN-only tariffs. For instance, this is the case for Mexico, whose indicators including preferences such as its low applied trade-weighted average tariff (2.5 percent) or low TTRI (3.7 percent) contrast with its poor placement of 107th according to the MFN TTRI (about 13 percent). Nonetheless, the MFN-based indicators are important measures of a country's non-discriminatory merchandise trade policy.

Calculations of applied import-weighted tariffs may overstate tariff protection in certain cases. A comparison of import-weighted tariffs and of import duties collected indicates that for most regions the latter is much lower than the former, as illustrated in figure 2.3. Import duty collection in SSA appears to be closest to the expected collection according to the weighted average of applied tariffs. For the other regions, however, tariff revenues are around half or less than the value expected from the tariff regime. These differences may reflect exemptions on tariffs or even corruption related to customs collection. The very large gaps for high-income countries may reflect the imperfect information available on the preferences they grant to developing countries.

Trade integration, measured by the trade share in GDP, is negatively and significantly correlated with trade restrictiveness, as measured by various indicators in the WTI database. Figure 2.4 provides an illustration of such a correlation between a country's merchandise trade integration ratio, averaged over the 1995–2006 period, and its applied simple average tariff that includes preferences averaged over the same period (trade integration is discussed in more detail in chapter 3).

Trade restrictiveness has declined substantially since the late 1990s and has continued to decline between the early 2000s and 2007. Average tariffs

Figure 2.4. Countries with Lower Tariffs Tend to Be More Integrated



Note: The figure illustrates a simple ordinary least squares (OLS) line with an intercept, without Singapore and Hong Kong (China) outliers. The regression coefficient is −0.34, significant at the 5 percent level.

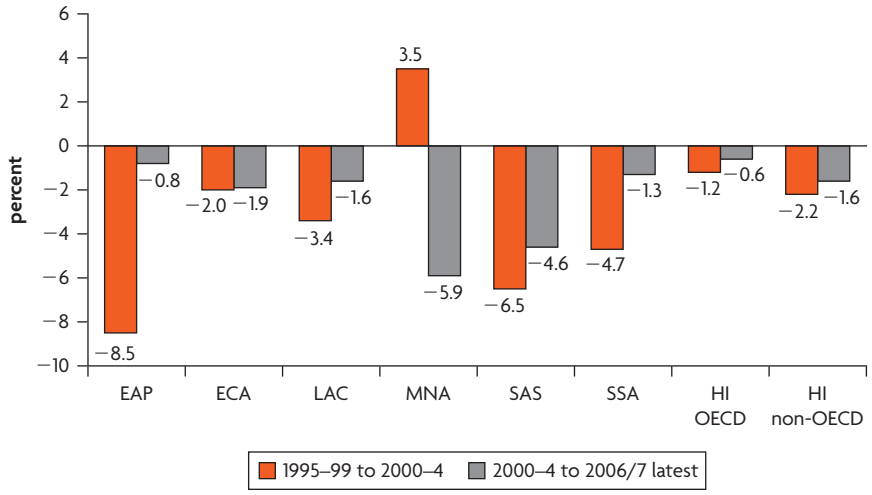
have been falling in most countries, regions, and income groups, especially among low-income countries, as illustrated in figure 2.5 (see also figures 2.2 and 2.6). From the late 1990s, the SAS region has had the largest reduction in tariffs, followed by the EAP region.

A few countries had higher tariffs in 2007 relative to the levels of the mid-2000s, with three exhibiting increases greater than 1 percent in the simple average of their MFN tariffs: Mauritania raised its average tariff from 10.7 percent in 2005–6 to 11.9 percent in 2007; El Salvador's tariff went from 5.9 percent to 7 percent; and St. Vincent and the Grenadines had the largest increase, from 4 percent to 9.9 percent (though still lower than the 12 percent tariff of earlier years). Other countries recorded smaller increases, ranging from 0.1 percent for Paraguay to 0.7 percent for Argentina, with Angola, Iceland, Oman, Vanuatu, Turkey, República Bolivariana de Venezuela, and Mongolia falling in the middle.

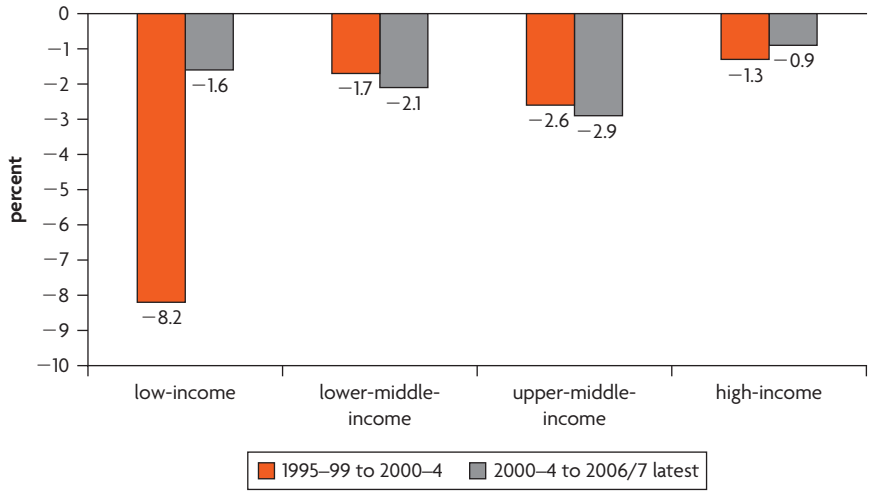
With respect to the early 2000s, however, 31 countries have higher tariffs, of which 14 recorded increases in the simple average of their MFN tariffs ranging from 1 to 8 percentage points (see table 2.2) and in the most extreme case, Kazakhstan, almost tripled the average from 2.8 to 7.8 percent.[8] For the three Baltic countries, joining the EU meant adopting its common external tariff, which, though still relatively low at 5.3 percent, is almost 50 percent higher for all three than their pre-accession average tariff (it is more than three times as high for Estonia). A similar story applies to Uganda, which increased its tariffs on average by 50 percent (4 percentage points) to 12.6 percent, as it adopted the common external tariff schedule of the East African Community.

Figure 2.5. The SAS Region and Other Low-Income Countries Had the Largest Decreases in Tariffs

A. Change in MFN tariffs (simple average) since the late 1990s, by region



B. Change in MFN tariffs (simple average) since the late 1990s, by income

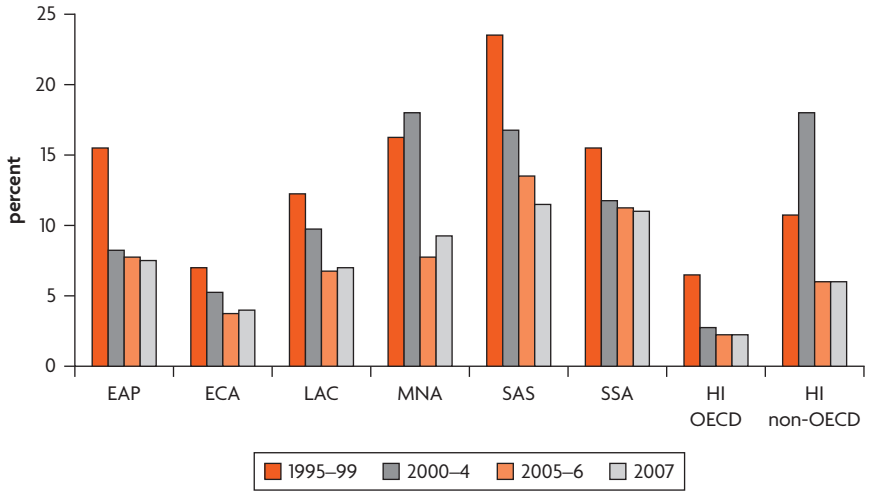


Note: All changes are in percentage points.

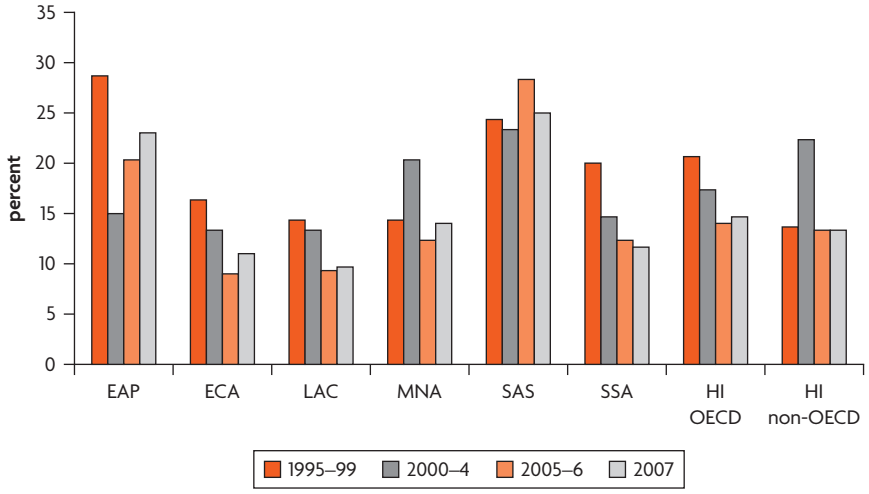
Developing countries that have reduced their import restrictions the most since the early 2000s include the Arab Republic of Egypt (from 46.8 to 17 percent in the MFN simple average tariff), the Seychelles (28.4 to 8.3 percent), India (31.8 to 14.5 percent), and Mauritius. In China, tariffs also decreased from 13.7 to 9.9 percent. Among developed countries, overall tariff restrictions in the EU came down from 6.1 to 5.3 percent and came down slightly in many other countries such as Japan, the United States, and Canada. Much of this observed liberalization, however, pertains to manufacturing trade.

Figure 2.6. Countries Have Liberalized Agriculture Less Than Other Merchandise Sectors

A. Applied tariffs (including preferences)—all goods (trade weighted average, percent)



B. Applied tariffs (including preferences)—agriculture (trade weighted average, percent)



C. Applied tariffs (including preferences)—all goods (production weighted average, percent)

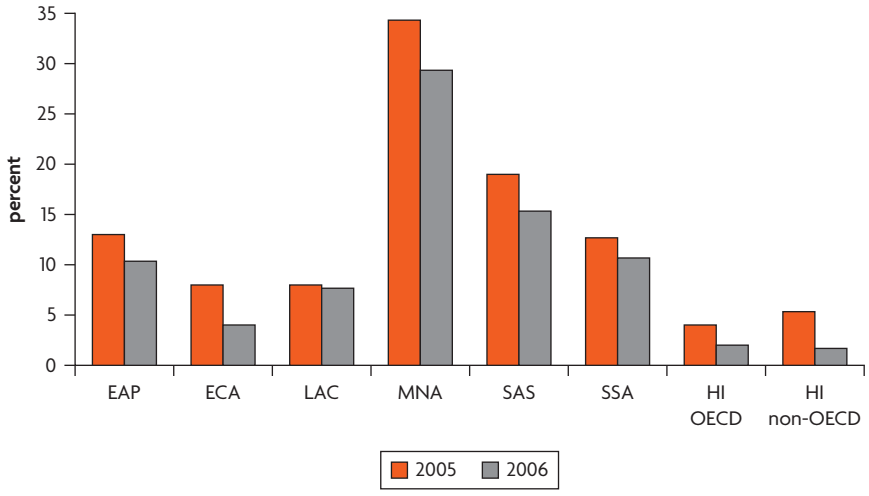


Table 2.2. Some Countries Have Increased Their MFN Tariffs (Simple Averages)

Country	1995–99 (percent)	2000–4 (percent)	2007 (percent)	Absolute increase between 2007 and 2000–4	Percent increase between 2007 and 2000–4
Bosnia and Herzegovina	—	6.0	7.0	1.0	16.7
Russian Federation	11.8	9.8	11.1	1.3	13.3
Sri Lanka	20.9	9.9	11.4	1.6	15.2
Lithuania	3.5	3.5	5.3	1.7	51.4
Latvia	4.3	3.5	5.3	1.8	51.4
Iceland	3.7	5.3	7.6	2.3	43.4
Bhutan	15.3	19.4	21.9	2.5	12.9
Zimbabwe	27.9	17.4	20.1	2.7	15.5
Vanuatu	—	13.8	16.6	2.8	20.3
Estonia	0.1	1.6	5.3	3.7	231.3
Uganda	—	8.7	12.6	3.9	44.8
Uzbekistan	—	11.0	15.6	4.6	41.8
Kazakhstan	9.5	2.8	7.8	5.0	178.6
Madagascar	6.9	4.6	12.4	7.8	169.6

Note: — = Not available.

Less has been done in agriculture. Across all regions and income groups, agricultural imports face much higher trade restrictions than manufacturing and mining imports. Countries tend to protect domestic farmers relative to manufacturing and mining. While the SAS region is still the most protective, followed closely by the MNA region, high-income OECD countries are more protective than any of the other developing regions, according to the MFN TTRI shown in figure 2.1, fourth panel. The EAP and SAS regions have had an increase in their weighted average tariff on agriculture since the early 2000s, but since their simple averages are unchanged or lower, this development seems to be the result of changing import patterns rather than a deliberate protectionist move (see also figure 2.6, second panel).[9]

Some of the liberalizers mentioned earlier have also reduced their tariffs in agriculture between the early 2000s and 2007: India reduced its MFN simple average tariff by 12 percent, Mauritius by 20 percent, and China by 25 percent. But others have not. In the same period, Egypt raised its tariff rate on agricultural imports from 45 to 66.3 percent, a 47 percent increase. High-income countries moved in the same direction and on average raised their tariff protection by 4.4 percent. In the EU, there was a decrease in protection for established member states, from 19.1 to 15.2 percent, a 20 percent decline. At the same time, however, new EU members had to increase their pre-accession tariffs to the EU common external tariff of 15.2 percent (for

Lithuania, tariffs increased by 47 percent). Russia raised its tariffs on agricultural imports by a record 68 percent. Norway's increase was more modest at 26 percent, but raised from a high level of 45.8 percent to 57.8 percent. In North America, while the United States and Mexico kept their average MFN tariff roughly unchanged, Canada increased its by an average of 11 percent, from 16 to 17.9 percent. Japan also raised its tariffs, the average rising from 21.1 to 22.3 percent, that is, by 6 percent. Switzerland kept its tariff roughly unchanged, around 44 percent.[10] In the LAC region, Argentina and Chile achieved substantial reductions, with the latter bringing its agricultural tariff (7.5 percent in the early 2000s) down to its target uniform tariff rate of 6 percent level by the mid-2000s.

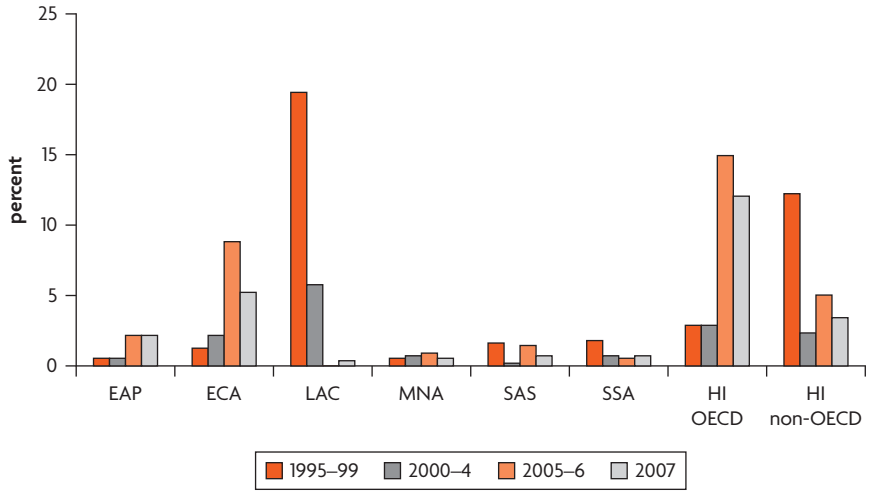
With food prices rising on world markets, trade restrictions on agriculture are receiving special attention. According to a recent World Bank research paper (Ng and Aksoy 2008), 147 countries are raw food net importers (RFNI); of which almost three-fourths are low-income countries, mostly concentrated in SSA. Probably reflecting the relative importance of the policy goal of self-sufficiency over that of keeping food prices low for consumers, the structure of protection for the developing RFNI countries subset is more biased toward their domestic agriculture than that of the rest of the developing world. The average trade-weighted applied tariff (including preferences) of the developing RFNI group on all agricultural imports was double (13.6 percent) that on nonagricultural imports (6.5 percent) in 2007. The corresponding ratio for the rest-of-the-developing world (raw food exporters) was lower at 1.6 (with tariffs of 12.8 percent versus 8 percent, respectively).

Import-weighted applied tariffs may underestimate protection since imports fall (and may become zero) when tariffs rise. Another measure of tariff protection is the production-weighted tariff average (in which the effect of preferences is also included), which gives an indication of the policy bias toward established domestic producers (see figure 2.6, third panel) but is available for only 74 countries for 2006 and 79 countries for 2005. Production-weighted tariffs are higher on average than trade-weighted tariffs among the low-income and the lower-middle-income countries, but are only about half as high among upper-middle-income and high-income countries (the latter having the lowest average rate, 1.8 percent for 2006, among income groups).[11] At the regional level, they range from a low of 1.5 percent among the 23 high-income non-OECD countries for which this indicator is available to a very high 29 percent (and a peak of 45 percent for the agricultural tariffs) across the MNA region (7 countries covered). This indicator has declined in all regions since 2005 in line with all other tariff indicators.

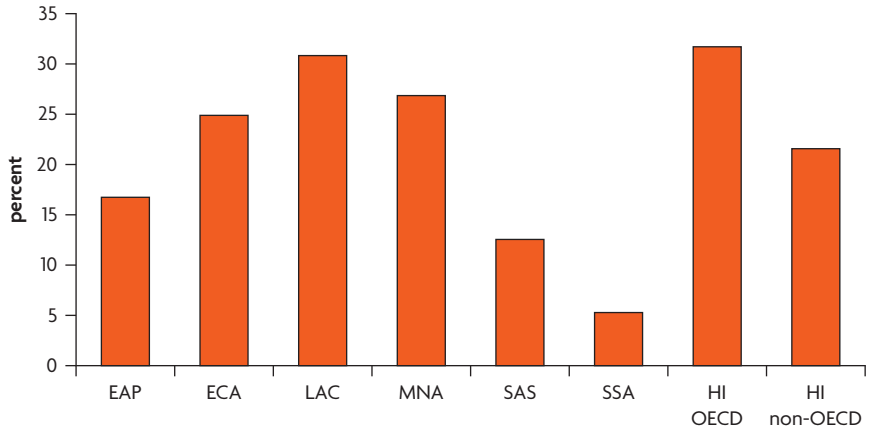
Compared to both high- and middle-income countries, there is greater simplicity in the trade regimes of low-income countries, primarily due to their greater reliance on ad valorem tariffs and their low usage of nontransparent specific (non–ad valorem) tariffs and nontariff measures.[12] As illustrated in figure 2.7 (both panels), high-income OECD countries stand out for their high

Figure 2.7. High- and Middle-Income Countries Have Less Transparent Protection

A. Frequency ratio of specific tariff (latest 2007 or 2006, percent of total lines)



B. Nontariff measures frequency ratio (latest 2001 or earlier year)



propensity to use specific tariffs and nontariff measures. On average, middle-income countries also tend to use specific tariffs (as in Europe and Central Asia) and nontariff measures (as in Latin American countries). SSA and SAS countries are the least intensive users of such measures.

In regions with a high incidence of nontariff measures, the pattern of trade restrictiveness is more complex than an analysis of tariff averages would indicate. Nontariff measures are often important (and also nontransparent) tools used to protect specific industries and products, especially in agriculture. Assessing overall trade protection is not possible without discussing such measures. Thus, even though such information has not been updated worldwide

since 2001 and its coverage is limited to 111 countries, the WTI database provides the data. In addition to clearly protectionist barriers such as quotas, nontariff measures include technical barriers to trade and sanitary and phytosanitary standards that may have legitimate consumer-protection or public health rationales, though they may also raise the restrictiveness of trade policy. Examples are lead content standards that many countries impose on paint and import bans or testing requirements following the detection of bacterial contamination. Although there are plans by the ITC to update the underlying data (see footnote 15) and by World Bank researchers to distinguish between the two categories of nontariff measures discussed above (to the extent possible), indicators in the WTI database only reflect the existing available data.

According to the latest OTRI, which incorporates estimates of the impact of all nontariff measures on trade flows, the pattern of trade restrictiveness in 2006 is somewhat different from that suggested by tariff-only indicators. Overall, SAS is still the most restrictive region and ECA the least restrictive, followed closely by EAP. However, in agriculture, as shown in figure 2.8, the most restrictive region is MNA followed by the high-income OECD group, and the least restrictive region is SSA. Still, countries in the SAS and ECA regions and the high-income non-OECD group impose relatively high barriers to agricultural imports on average. The EAP and LAC regions fall in the middle.

Other indicators such as tariff dispersion and the maximum tariffs charged by countries shed light on the extent of the discretionary approach to trade policy adopted in a given country—that is, whether there are particular products or specific subsectors a country protects more than others. In cases where tariff dispersion is high but the average tariff is low, for instance, a country may still protect certain sectors substantially while liberalizing overall. These sectors in turn may be important export sectors for trading partners. By contrast, a more transparent and uniform tariff structure may be the result of a

Figure 2.8. MNA and HI-OECD Countries Protect Agriculture the Most and SSA the Least (OTRI = Agriculture, 2006)

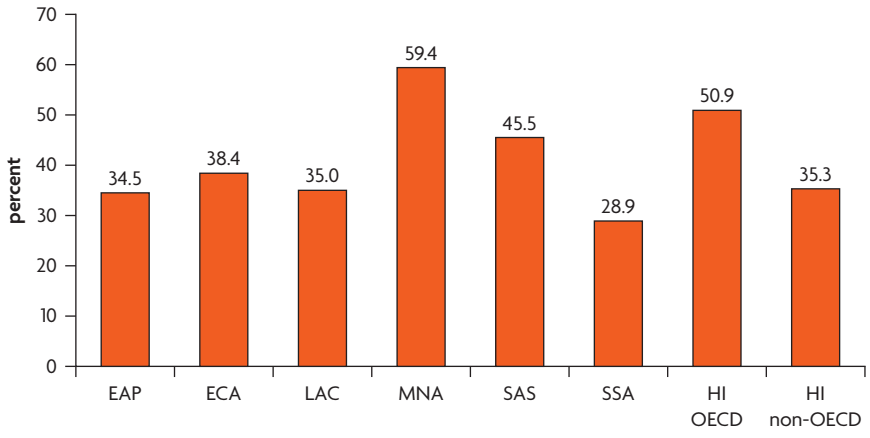
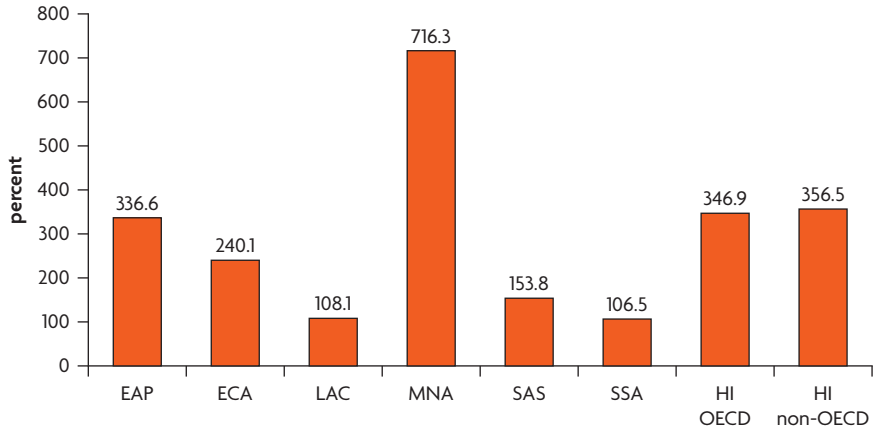
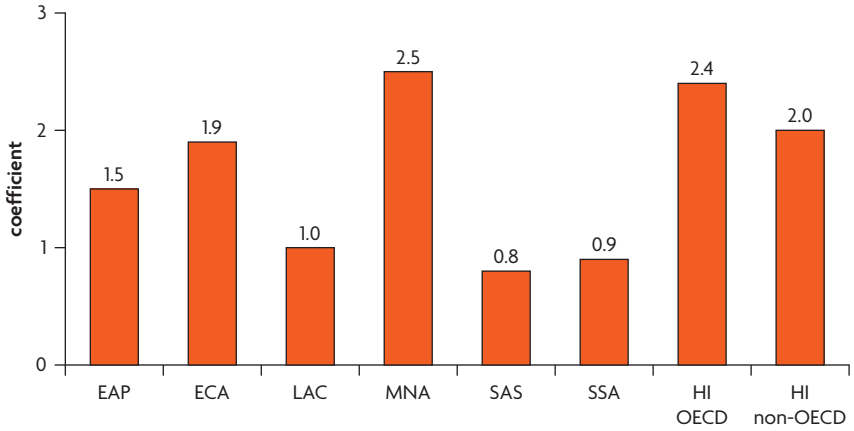


Figure 2.9. Maximum Tariffs and Dispersion Are Still High in Many Regions

A. Maximum tariffs (cross-country average, percent), 2007



B. Dispersion, coefficient of variation (cross-country average), 2007



country's efforts to reduce corruption or administrative burdens associated with implementing a complex tariff structure.

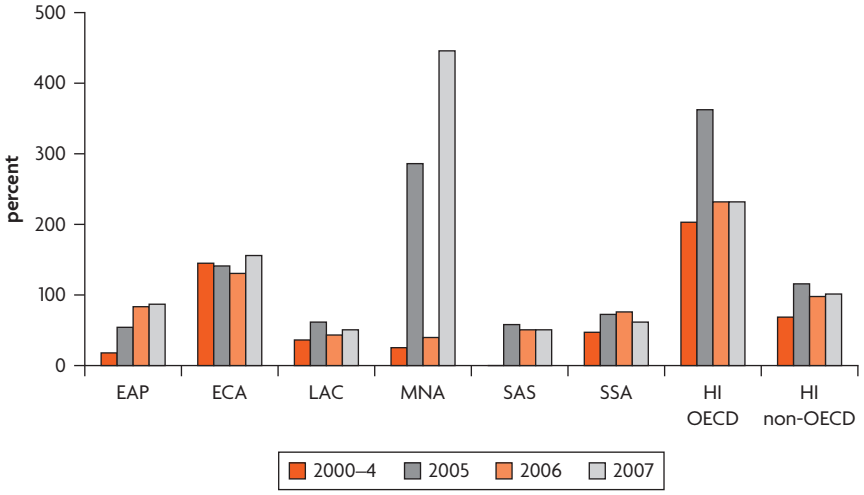
For the world as a whole, tariff dispersion has fallen since the early 2000s and is slightly lower than the level of the late 1990s. Maximum tariffs worldwide have fallen since 1995–99, but in 2007 there were some increases from 2006 levels. High-income OECD countries still retain high maximum MFN applied tariffs, averaging 347 percent (having dropped from 1,488 percent in the late 1990s). Figure 2.9 shows that the MNA region has both the highest tariff dispersion measured by the coefficient of variation (2.5) of the MFN tariff schedule and the highest maximum tariff (averaged among countries within the region) of 716 percent in 2007. Its maximum tariff is almost twice as high as the next highest among developing regions, 337 percent for the EAP region, and seven times that of the LAC and SSA regions, which have the lowest. The maximum tariff in high-income OECD countries is almost three

times that in low-income ones, and tariff dispersion in the former is about two and a half times as high as in the latter.

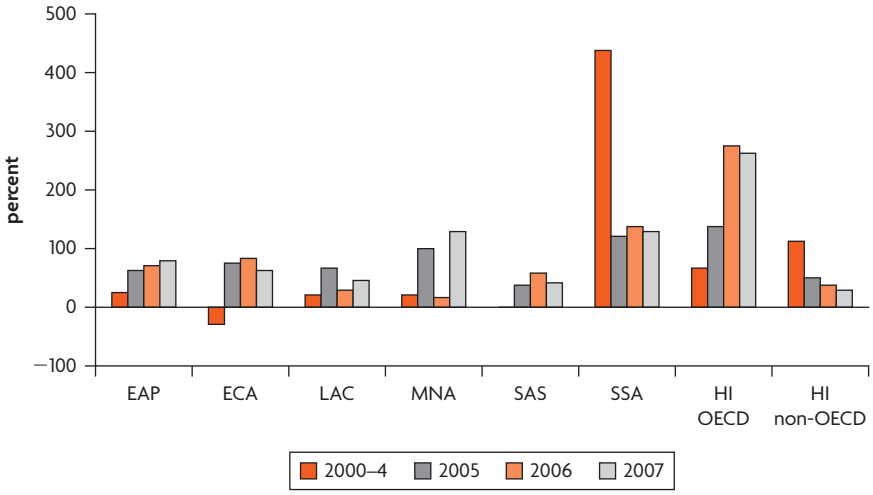
Some countries tend to protect finished goods much more than they protect intermediate goods and raw materials. For example, countries wishing to protect infant industries, in which they expect to gain comparative advantage over time, may lower protection on imported inputs to reduce costs for producers and encourage production. The WTI indicators of tariff escalation in figure 2.10 measure the percentage change between tariffs on fully processed

Figure 2.10. Tariff Escalation Is Highest in MNA and High-Income OECD Countries, Especially in Agriculture

A. Tariff escalation—agriculture, percent



B. Tariff escalation ratio—non-agriculture, percent



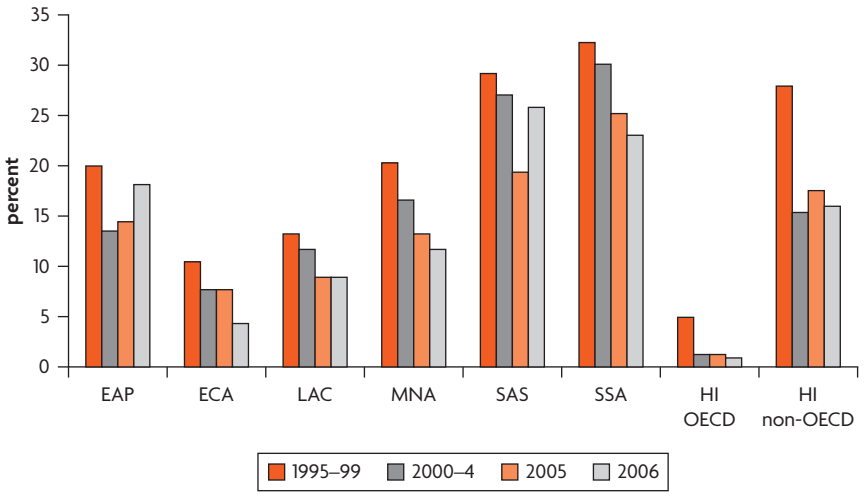
Note: Tariff escalation in the above charts is expressed as the percentage change between tariffs for finished goods and tariffs for raw materials.

versus primary goods (following the standard World Trade Organization (WTO) classification of such categories) and at a very aggregate level capture the higher effective protection with respect to nominal tariff protection afforded to domestic producers. In manufacturing, this indicator is a proxy measure for trade-related industrial policy measures. Generally, a more escalated tariff structure is likely to create a stronger anti-export bias, as productive resources are artificially channeled into import-competing sectors. As shown in figure 2.10, fully processed goods are much more protected than raw materials, as expected. But the striking pattern evident from figure 2.10 is that across all country groups tariff escalation on average is lower (in some extreme country cases even negative) for other sectors compared to agriculture (including processed food).

Overall, tariff escalation is highest in the MNA (106 percent) and high-income OECD (89 percent) countries, especially in agriculture.[13] Among developing countries, the ECA region has had a similar pattern of escalation, reflecting features of the EU tariff structure adopted or approximated by many countries in the region that have recently acceded or aspire to accede to the EU. However, the SSA region has the third highest tariff escalation, on account of the relatively higher levels of escalation outside of agriculture (mostly in manufacturing). In agriculture, the MNA region has the highest escalation (447 percent), well above that of the high-income OECD countries (232 percent); the low-income group has the lowest tariff escalation (30 percent), and the lower-middle-income group has the second highest (155 percent) but is still below the high-income OECD countries. Australia, New Zealand, and Egypt stand out as the countries with the most escalated tariff structures in agriculture (973, 926, and 603 percent, respectively). These same countries also appear on the top 10 list for escalation outside of agriculture, which is dominated by Iceland, Mauritius, and Canada (2,832, 1,669, and 1,134 percent, respectively). Other countries also on the top 10 lists of tariff escalation in both sectors are Bosnia and Herzegovina, Swaziland, and Lesotho.

The discussion on tariff policy is not complete without an assessment of how it is linked to fiscal revenues, particularly in developing countries. On average, tariff revenues in developing countries account for a larger share of fiscal revenues than is the case for developed countries. Tariff revenues are generally easier to assess and collect than regular taxes. Developing countries with less developed tax systems or poor governance are more likely to rely on border taxes for fiscal revenues. As tariffs decline in these countries, additional adjustments to fiscal systems are required (either to obtain higher revenues or to reduce expenditures). Duties on imports as a percent of total taxes are most important in SAS and SSA countries, where they have ranged, on average, from 19 to 30 percent this decade, compared to only around 1 percent in the high-income OECD countries (see figure 2.11). The other regions all have had less than 17 percent of fiscal revenues coming from trade taxes since the start of the decade.[14]

Figure 2.11. Fiscal Revenues Are Most Dependent on Import Duties in SSA and SAS Countries



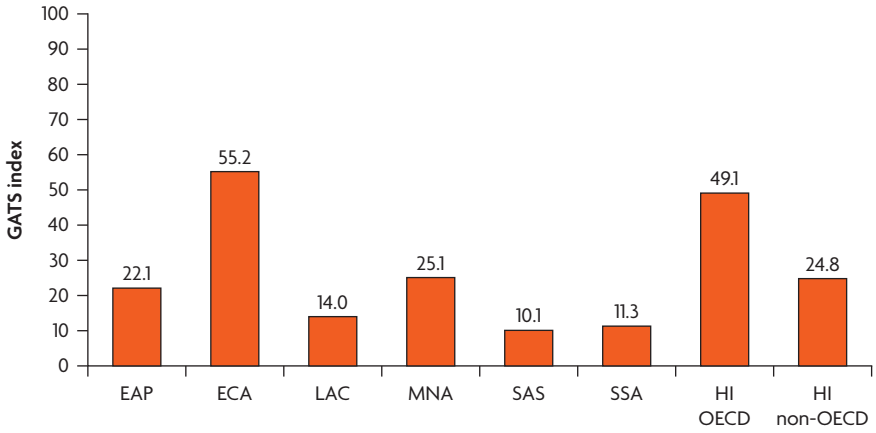
Services Trade Liberalization

Services trade has grown faster than merchandise trade through 2006, but services remain an underexploited source of exports for developing countries. While some countries are large services exporters, many are not. In addition, many services are an important input to other goods exports: the competitiveness of these exports on world markets may depend on the quality of domestic services such as telecommunications, transport and distribution services, and financial intermediation. Global outsourcing has become important in promoting both goods and services exports. Liberalization of services sectors can improve the quality and efficiency of a country's services and can raise both goods and services exports. It can also raise consumer welfare.[15]

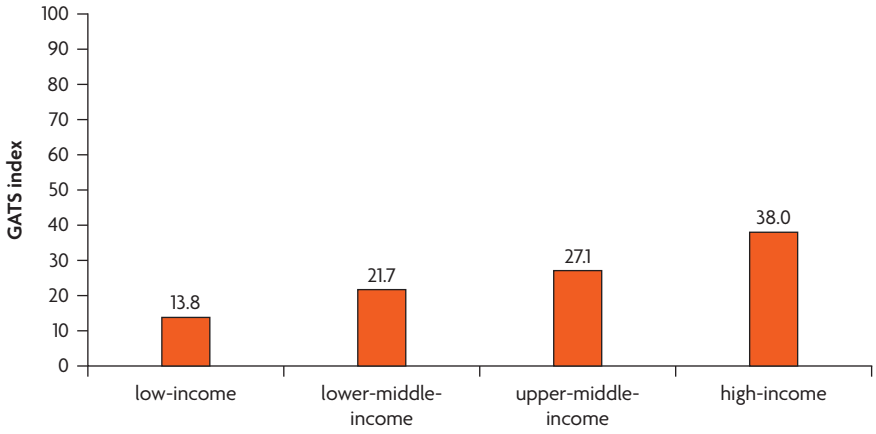
In the last decade, countries have become more aware of the potential benefits from services liberalization, but have made few commitments to the GATS with respect to either intended opening of their services sectors or intentions to bind restrictions to current levels. Such commitments often do not reflect actual liberalization, since some countries have liberalized further unilaterally or within the context of bilateral or regional agreements. But, even if countries do not promise additional liberalization, multilateral commitments are particularly important in services where there are considerable first mover advantages. The WTI database contains three indicators of services trade liberalization, which are based on GATS commitments. The first indicator measures GATS commitments to liberalize for 150 countries, based on a methodology developed by Hoekman (1997) and recently applied to selected European countries (Hoekman and Eschenbach 2006) for all services sectors and subsectors.[16] This proxy is an imperfect measure of actual

Figure 2.12. ECA and High-Income OECD Countries Have Committed the Most to Open Their Services Sectors and Low-Income Countries the Least

A. Overall GATS commitment index, by regions (1–100, most liberal), 2007



B. Overall GATS commitment index, by income (1–100, most liberal), 2007



service liberalization as discussed above.[17] For the time being it is, however, the only widely available comparative indicator with a broad sectoral coverage.[18] A GATS commitment liberalization index for banking services is also available from the United States International Trade Commission (USITC). A third set of indicators constructed by the International Telecommunications Union (ITU) measures competition and the maximum share of foreign investment allowed in the telecommunications sector.

According to the GATS commitment index shown in figure 2.12 and table 2.3, countries that have recently acceded to the WTO in the ECA region and developed countries have committed to a greater degree of openness in services trade than have other groups. Scores for the high-income OECD countries vary. At the upper end are Iceland (64) and the United States (63), and at the lower end are many EU countries (with commitment indices around 50), Japan (49), and the Republic of Korea (41).

Table 2.3. Most Developing Countries, Save WTO Accession Countries, Have Committed Little in the GATS

20 most committed		20 least committed	
Country	GATS commitments index, 2007	Country	GATS commitments index, 2007
1. Moldova	84.3	130. Togo	4.0
2. Georgia	70.5	131. Namibia	3.9
3. Latvia	69.1	132. Bangladesh	3.3
4. Kyrgyz Republic	66.6	133. Mauritania	3.3
5. Albania	65.1	134. Burkina Faso	3.2
6. Iceland	64.4	135. Uganda	3.2
7. Armenia	63.2	136. St. Kitts and Nevis	3.1
8. United States	62.7	137. Cameroon	3.1
9. Lithuania	59.7	138. Mali	3.0
10. Macedonia, FYR	58.1	139. Costa Rica	2.8
11. Hungary	58.0	140. Chad	2.7
12. Oman	57.4	141. Central African Republic	2.5
13. Estonia	56.7	142. Guinea-Bissau	2.4
14. Norway	56.5	143. Maldives	2.3
15. Jordan	56.4	144. Niger	2.3
16. Saudi Arabia	55.5	145. Fiji	2.2
17. Australia	54.8	146. Congo, Dem. Rep. of	2.2
18. Switzerland	53.7	147. Belize	1.6
19. South Africa	53.4	148. Tanzania	1.0
20. New Zealand	52.2	149. Madagascar	0.4

Few developing countries reach similar levels of commitments: indices range from a low of 0.4 in the case of Madagascar (lowest commitments) to 84 (highest) for Maldova, a small open economy with very limited infrastructure, especially in the telecommunications and banking sectors. Moldova acceded to the WTO in 2001 and has FTAs with Romania and other Central European countries, Russia, and nine other Commonwealth of Independent States (CIS) countries. Other countries following closely are those in ECA that have joined the WTO during the past decade. In comparison, the three countries that acceded in 2007, Saudi Arabia, Tonga, and Vietnam, have committed to a relatively lower degree of services trade liberalization, with their commitment indices ranging from 56 for the former to 43 for the two latter countries.

Most developing countries score below 40, including China (36), which has committed less than (smaller) countries in Southeast Asia (for example,

Cambodia with 49) and ECA as a condition of WTO accession. Low-income countries have committed less than other groups in terms of liberalization. The champion of services trade liberalization under the GATS is the ECA region (see first panel of figure 2.12), with the exception of Turkey. In fact, half of the most committed 20 countries are in ECA, as are six developed countries. The SAS, SSA, and LAC regions have the lowest degree of commitments, with most countries in the southern part of the African continent scoring below 10. The most extensive commitments among SSA countries have been made by two coastal, open economies, South Africa (53) and the Gambia (52) and by two landlocked countries, Lesotho (47) and Burundi (35). But 17 out of the bottom 20 countries are in the SSA region.

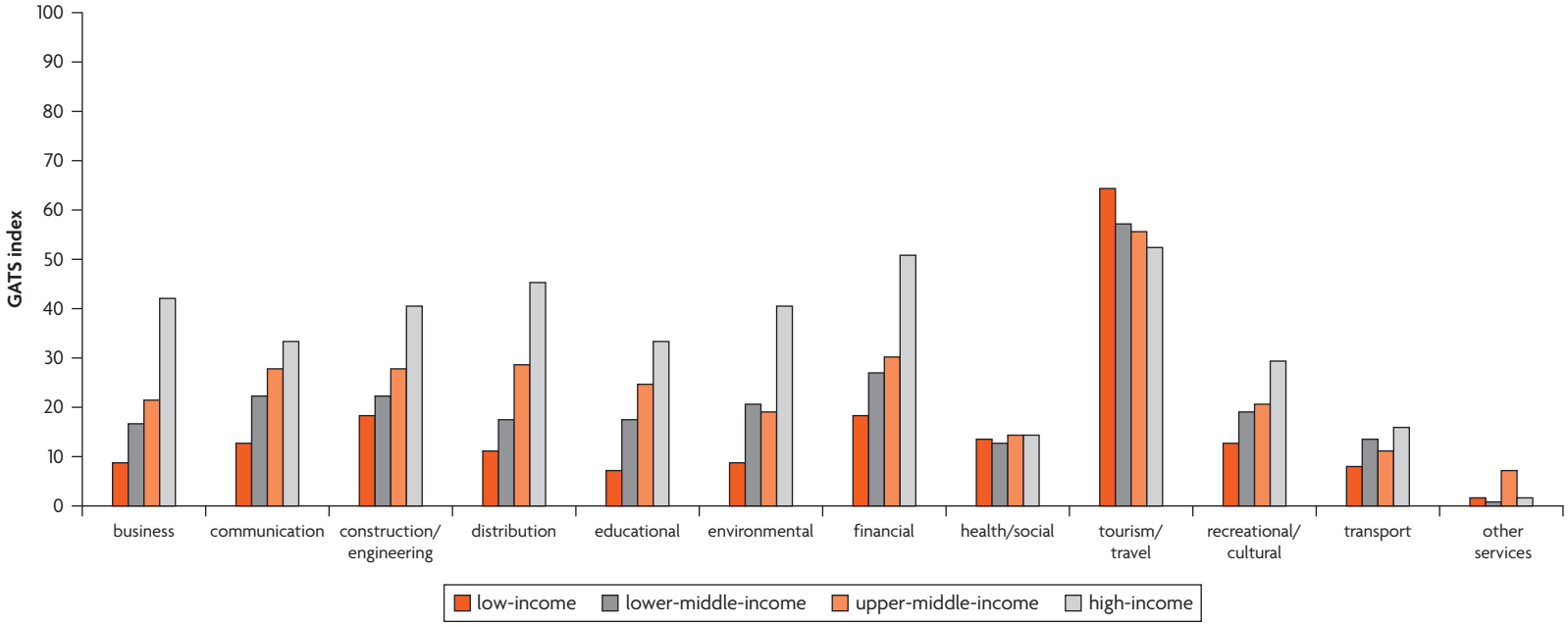
Looking at the pattern of commitments made across sectors, high-income countries have a more open stance across most sectors relative to other income groups. Low-income countries exhibit a higher or similar average commitment to services trade liberalization compared to rich countries in a few sectors, namely in health and other social sectors and in tourism and travel (see figure 2.13).[19] An additional index by the ITU measures the degree of foreign participation allowed in the telecommunications sector on a scale from 0 to 100 percent. It shows all ECA countries being fully open and other regions having an average score higher than 80. The EAP region is at the bottom with a score of 59.

External Environment

Access to global markets for exported products is an important element of an outward-oriented development strategy of many developing countries. Domestic policies may support trade, but export growth could be limited if third-party markets are closed to exporters' products. The indicators in the WTI database suggest that, in general, low-income countries face the highest entry restrictions in the world market to their exports and upper-middle-income countries face the lowest.

The Market Access (MA) version of the Trade Restrictiveness Indices includes all the available data on both unilateral and reciprocal tariff preferences granted.[20] They are available for two recent years, 2005 and 2006. One version is based on tariffs only and another includes also nontariff measures (MA-TTRI and MA-OTRI, respectively).[21] According to the MA-TTRI for all goods (shown in figure 2.14) as well as the MA-OTRI, all regions' market access has improved from 2005 to 2006, but in agriculture it has deteriorated for the ECA, SAS, and high-income OECD countries. Exporters in SAS have faced the highest barriers equivalent to a uniform tariff of 7.3 percent (or 18 percent when considering nontariff measures). The next highest barriers are faced by the SSA and EAP regions among developing countries, with the OECD countries also facing relatively high tariff barriers to their exports. The barriers

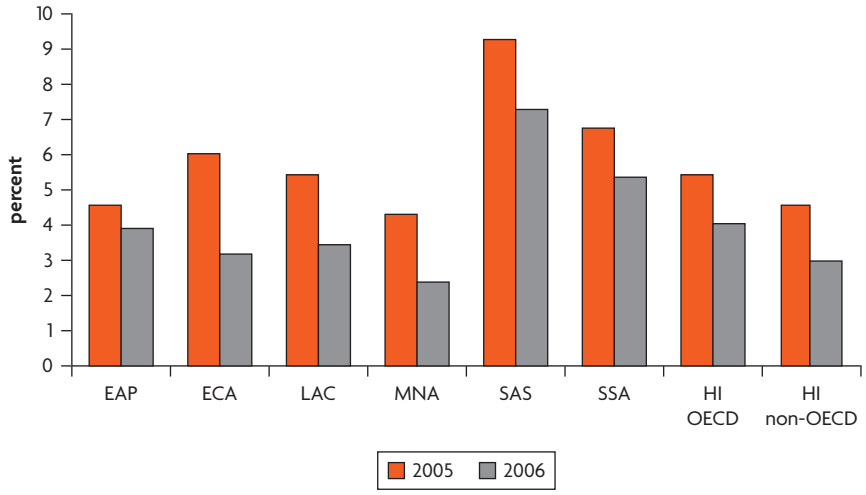
Figure 2.13. High-Income Countries Are More Committed Than Other Groups to Services Trade Liberalization in Most Sectors (2007)



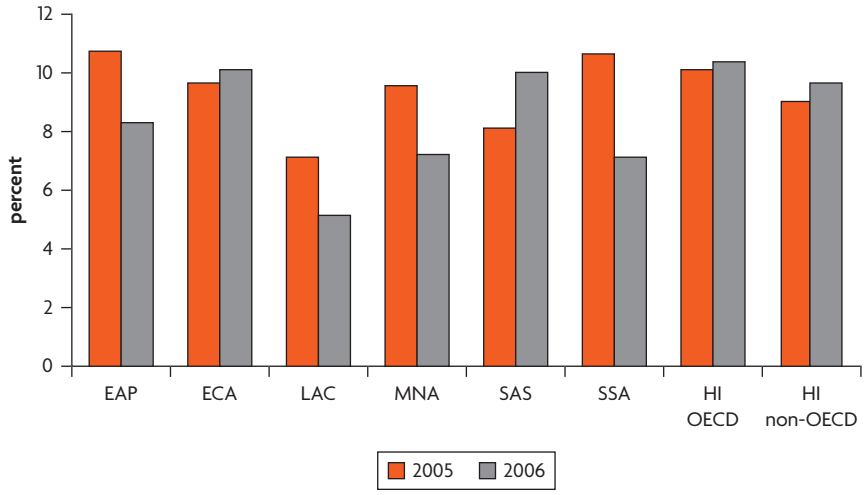
Note: The 12th "Other Sectors" is a residual category, which the WTO Secretariat suggested might be used for Central Product Classification categories 95 + 97 + 98 + 9, which include religious, beauty, and house-keeping services, among others. There are in reality hardly any commitments in this category. Only the GATS schedules for five countries (including Australia and Barbados) contain partial liberalization commitments in this category.

Figure 2.14. Market Access Is More Restricted in Agriculture

A. MA-TTRI (including preferences), all goods (percent)



B. MA-TTRI (including preferences), agriculture (percent)

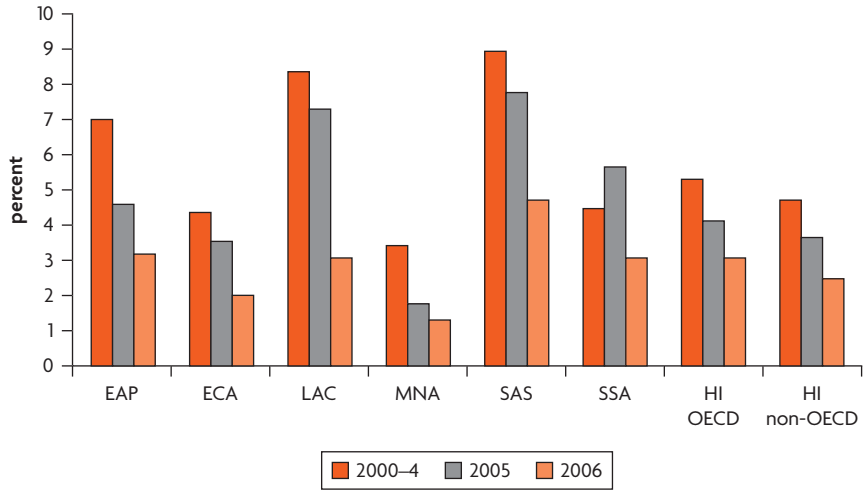


faced by SAS are 204 percent higher that those faced by the MNA region and 115 percent higher than those faced by the LAC region. The LAC and ECA regions faced more restrictions than MNA exporters, who enjoyed the most favorable market access.[22] In agriculture, where nontariff measures are often very restrictive, the SSA and EAP regions faced MA-OTRI values (equivalent uniform tariff rates) of over 30 percent and the four other regions in the developing world between 20 percent and 30 percent (see second panel of figure 2.14).

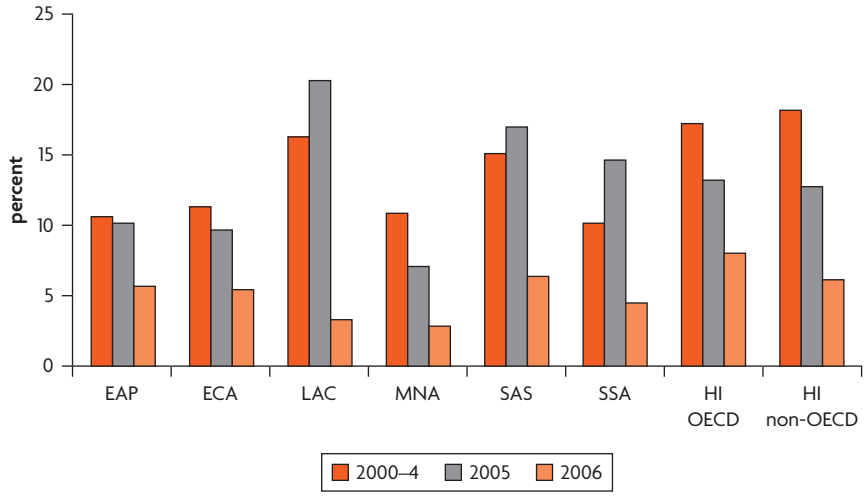
This pattern is confirmed when an alternative measure of market access, available for all years through 2006, is considered—the weighted average of the

Figure 2.15. SAS Exporters Face the Highest Tariff Barriers and MNA's the Lowest

A. ROW applied tariff (including preferences)—all goods (percent)



B. ROW applied tariff (including preferences)—agriculture (percent)



rest-of-the-world (ROW) applied tariff (including preferences) facing exporters. Large improvements in market access for all regions between the early and mid-2000s are evident from figure 2.15. This measure confirms that the MNA region enjoys the most favorable market access when compared to other regions, while the SAS region faces the worst access. Since the beginning of the 2000s, the LAC region's market access has improved the most (in both percent and percentage point terms). The SSA region's market access worsened significantly in 2005 from the earlier period, then improved considerably in 2006, even when compared to the early 2000s level. The increase in tariff

barriers for SSA between the early 2000s and 2005 may have reflected the general reduction in market access for agricultural products, which affected overall market access for SSA more than other regions (many countries in the SSA region are larger exporters of agricultural commodities relative to other goods than other countries). SSA exporters continue to face the highest tariff barriers overall and, among developing regions, also in agriculture. Exporters in the low-income country group also face the highest tariffs at 3.7 (trade weighted, and including preferences).

The most recent sharp improvements (in 2006), however, may not imply a substantial improvement in tariff policies by importing countries, but may reflect the recent effort to improve the coverage and quality of information on preferences in the (harmonized) databases by the Geneva-based trade-related agencies, and especially the ITC. In the case of the large improvement in LAC's market access in agriculture in 2006, for instance, many countries in the region exhibit sudden and very large declines (by more than 50 percent) in their row applied tariff averages, including Brazil and Argentina.[23] However, the only development affecting the market access indicators was the December 2005 entry of República Bolivariana de Venezuela into Mercosur, which clearly cannot explain the size of the changes in the 2006 market access indicators. Better coverage of existing preferential arrangements appears to be the most likely explanation for such changes. However, even if the evolution of preferences may be hard to detect due to historical data weaknesses, the cross regional pattern for all goods seems to be very similar over time.

There is, however, a lot of variation in market access among countries, as illustrated in table 2.4, which shows the countries enjoying the most and least favorable market access in 2006 according to the MA-TTRI. Half of the countries with the lowest access were in the SSA region, though 7 out of the 20 with the highest access were also in the SSA region. Market access varies according to the specific products each country exports. In the earlier section on tariff dispersion and maximum tariffs, it was clear that some goods are protected much more than others, particularly agricultural products, in high-income OECD countries. Oil exporters account for a large share of the countries with the highest market access (7 out of 20). Central American countries for which garment exports are important faced considerable barriers until early 2006.[24] Market access for cotton exporters to the United States has improved significantly since the Dominican Republic–Central America Free Trade Agreement became effective in April 2006, but this change will be reflected only when the 2007 tariff indicators recorded in the international databases are updated (a following section discussing the value of U.S. preferences, however, does include such information, as it is based on information from national sources).

The top and bottom list according to the rest-of-the-world applied tariffs (rather than the MA-TTRI) shows some different countries on the top and bottom 20 (the country coverage of this indicator is larger and the method

Table 2.4. Oil and Commodity Exporters and Rich Countries Enjoy the Best Market Access

Country	MA-TTRI (2006)	Country	MA-TTRI (2006)
1. Botswana	0.4	106. Albania	23.5
2. Central African Republic	1.2	107. Guatemala	23.9
3. Niger	1.3	108. Bangladesh	24.1
4. Nigeria	1.3	109. Kenya	24.4
5. Algeria	1.5	110. Ghana	25.0
6. Gabon	1.9	111. Madagascar	25.6
7. Venezuela, R. B. de	2.0	112. Nicaragua	25.6
8. Azerbaijan	2.1	113. Togo	25.6
9. Belarus	2.4	114. Burkina Faso	26.6
10. Brunei	2.8	115. New Zealand	26.8
11. Saudi Arabia	2.8	116. Malawi	28.3
12. Norway	2.9	117. Nepal	28.8
13. Sudan	2.9	118. Burundi	32.2
14. Namibia	3.1	119. El Salvador	32.5
15. Oman	3.4	120. Mauritius	32.7
16. Iran, Islamic Rep. of	3.6	121. Uganda	32.7
17. Qatar	3.6	122. Rwanda	33.6
18. Israel	3.9	123. Honduras	34.9
19. Russian Federation	4.5	124. Bolivia	35.2
20. Switzerland	4.5	125. Cambodia	46.0

to calculate access is different), though on average, the story is similar (see table 2.5). For example, there are 7 SSA countries in the top 20 and 7 in the bottom 20, as well as various small Caribbean and Pacific islands that are not covered in the TRIs but appear here as they have high market access. However, three African producers, Benin, Mali, and Burkina Faso, rank at the very bottom in terms of market access, reflecting the high import tariffs imposed by other developed and developing countries on cotton, a very important product in their export baskets. Box 2.1 discusses market access for garment exporters.

Market access is strongly and significantly correlated with trade and export performance, as illustrated in figure 2.16.[26] The different patterns of market access among different countries, regions, and income groups are driven primarily by differences in the product composition of exports. To the extent that countries in a particular group have similar types of exports, there will be systematic differences among country groups. Since agriculture generally faces greater restrictions in terms of market access than manufacturing, regions and countries exporting mainly agricultural products generally have lower market

Table 2.5. Small Islands Enjoy Lowest Tariff Barriers, While Cotton Exporters the Highest, 2006

Country	ROW applied tariff, weighted average, all goods	Country	ROW applied tariff, weighted average, all goods
1. Liechtenstein	0	184. Vietnam	5.38
2. Bermuda	0.02	185. Korea, Democratic People's Republic of	5.95
3. Congo, Dem. Rep. of	0.09	186. Somalia	6.02
4. Equatorial Guinea	0.10	186. Malawi	6.09
5. Cayman Islands	0.12	187. Swaziland	6.40
6. Botswana	0.13	188. Honduras	6.55
6. Libya	0.13	189. Pakistan	6.83
6. Nigeria	0.13	190. Uzbekistan	7.95
9. São Tomé and Principe	0.17	191. Cyprus	8.08
10. Venezuela, R. B. de	0.20	192. Macao, China	8.30
11. St. Lucia	0.23	193. El Salvador	8.41
12. Azerbaijan	0.24	194. Cambodia	8.69
12. St. Kitts and Nevis	0.24	195. Afghanistan	9.42
12. Bahamas, The	0.24	196. Lesotho	9.67
15. French Polynesia	0.25	197. Monaco	10.13
16. Central African Republic	0.31	198. Haiti	10.53
17. Angola	0.33	199. Cuba	10.82
18. Gabon	0.34	200. Northern Mariana Islands	12.61
19. Papua New Guinea	0.35	201. Benin	12.84
20. Bosnia and Herzegovina	0.40	202. Mali	15.31
20. Armenia	0.40	203. Burkina Faso	23.02

access than those where minerals and manufacturing dominate exports of goods. Indeed, both the MA-TTRI and the MA-OTRI are positively and significantly correlated with the export share of agriculture (see figure 2.17, which plots the latter two indicators) Conversely, given the importance of oil, gas, or manufactured products in their export baskets, exporters like Nigeria, República Bolivariana de Venezuela, Gabon, Mexico, many MNA countries, the EAP region, and the high-income countries face more favorable market access conditions.

Duty-Free Trade

What the discussion on tariff barriers does not reveal is that a substantial amount of trade between some countries is free, with countries trading under tariff lines with a MFN-0 rate or with partners in FTAs or CUs. The first type

Box 2.1. Garment and Textiles Exporters Also Face Higher Tariffs Than the Rest of the World

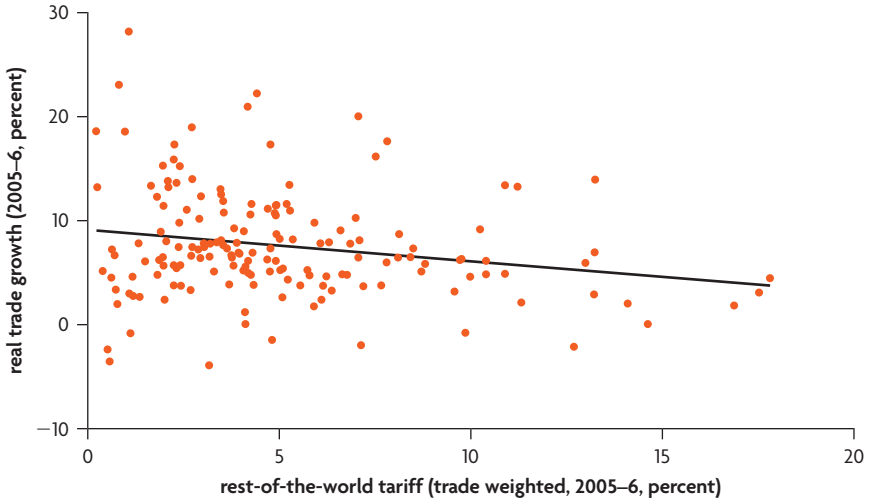
Garments and textiles are very important export items for many countries. They are found among the top five export products for 45 countries. These countries are mostly concentrated among the low-income (16) and lower-middle-income (18) groups.[25] For this group, real growth rates of total trade and of exports (8.3 and 8.7 percent, respectively) have been higher since the late 1990s relative to the trade and export growth rates of the rest of the world (nongarment exporters, 7.4 percent and 6.7 percent, respectively). On average, garment exporters tend also to be more trade integrated than the rest of the world. Their average trade share in GDP is 106 percent relative to 98 percent for the comparator group, despite the fact that some of the largest exporters are also large countries having relatively low integration ratios (such as India, Bangladesh, Pakistan, and Turkey). As expected, natural resources (mining) account for a much lower proportion of their total exports and their export bundles are more diversified (with a low export concentration index of 31) than those for the rest of the world (40).

Despite their heavier use of preferences, garment-exporting countries face a significantly less favorable market access for their (total) exports than the rest of the world, both for the group in its entirety and for the subset of garment exporters in developing countries. In 2006, the latter group faced a weighted average tariff (including preferences) on their nonagricultural exports of 3.5 percent versus 1.8 percent for the rest of the developing world. And this was the case even though the value of EU and U.S. preferences utilized by the subset of garment exporting countries in the developing world was relatively high, equivalent to 6.1 percent of their total exports to these two economies, more than double the value of such preferences for the rest of the world (3 percent).

Most other trade policy, institutional environment, and trade facilitation indicators appear in line with those of the rest of the world and with the middle-income country group averages. Among the few notable, the garment-exporting countries tend to have a much stronger home production bias in their tariff schedules than the rest of the world. Their production-weighted average tariff (including preferences) is substantially higher (10.5 percent for the entire group and 14.2 percent for the subset of developing countries) than the rest of the world's (4.9 percent) or the rest of the developing world (7 percent).

of trade flows are shown in the first panel of figure 2.18. Across regions the average share of exports that are subject to MFN-0 is in the range of 26 percent to 45 percent, with the SAS and LAC regions below 30 percent. All regions show substantial increases (34 percent on average) in the proportion of MFN-0 trade since the late 1990s. The SAS region has the highest increase (88.5 percent),

Figure 2.16. Better Market Access Helps Trade and Export Performance

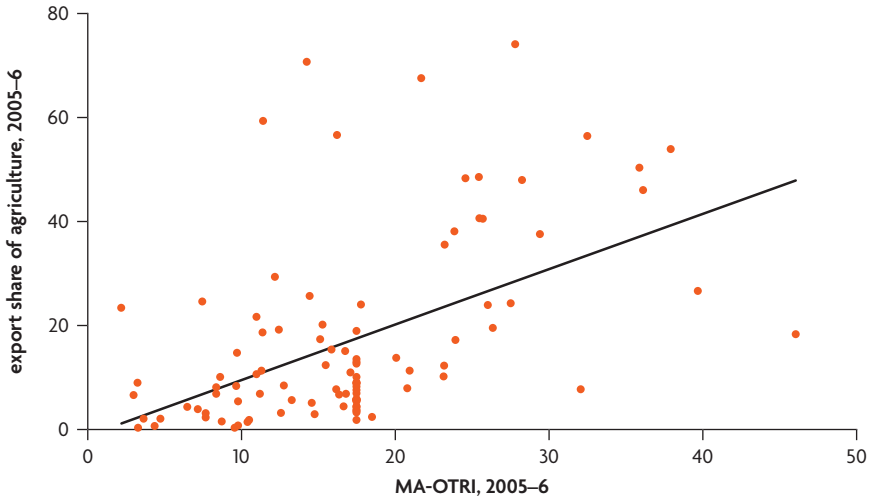


Note: The trend line is based on a simple OLS regression with an intercept. The regression coefficient is −0.241, significant at the 5 percent level.

but from the lowest base (14 percent). The SSA region had the highest level of MFN-0 trade at 39.4 percent in the late 1990s and has experienced the smallest increase since—by only 15 percent.

Given the rapidly expanding web of North–South bilateral FTAs and some regional South–South FTAs or CUs (such as the South Africa Custom Union among some Southern African countries), another share of trade is taking

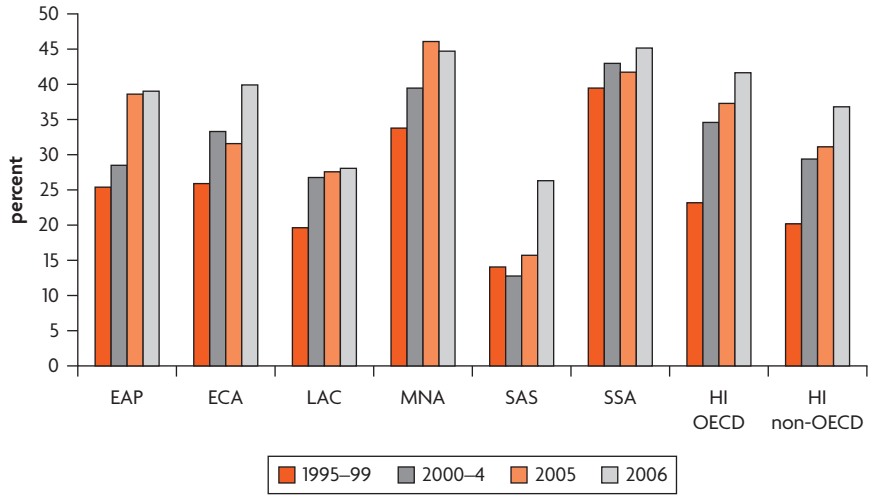
Figure 2.17. Agricultural Exporters Face Higher Market Access Barriers



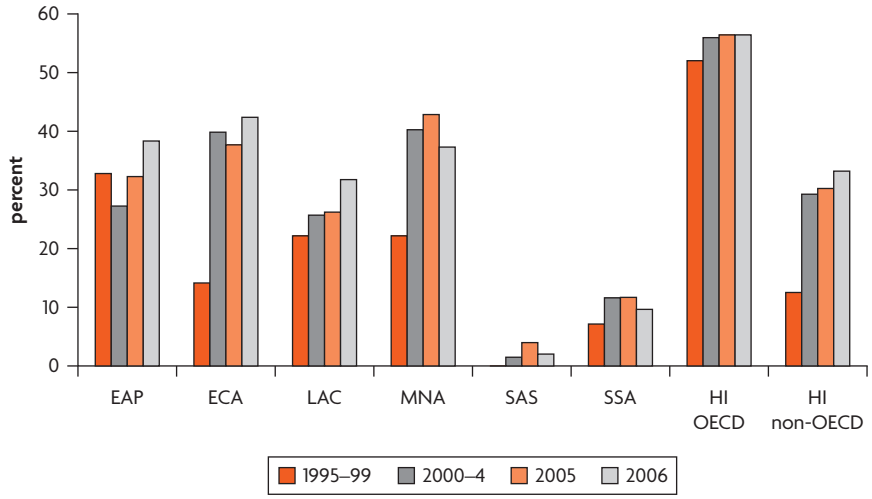
Note: The line is based on a simple OLS regression with an intercept. The regression coefficient is 1.04, significant at the 5 percent level.

Figure 2.18. Duty-Free Trade Has Increased Significantly

A. MFN-0 export value, all goods (percent of total exports)



B. Share of trade with FTA/CU partners



place duty free.[27] In the developing world, the pattern is similar to what was found earlier for free trade taking place under multilateral arrangements, with the SAS and LAC regions displaying the smallest shares of their exports being directed toward (reciprocal) free trade partners. The SAS region stands out as having no trade with FTA/CU partners in the late 1990s and only 2.2 percent of exports to, and 1.2 percent of imports from, FTA/CU partners in 2006. The increase in trade shares with FTA/CU partners signals the possible extent of trade diversion occurring through such agreements, but to prove it, a more detailed analysis would be needed, correcting for the overall growth of trade for each group and the overall composition of

exports. Developing country import share from partners has increased much faster (122 percent) than export share to partners (because high-income countries' export shares have risen faster).

EU and U.S. Preferences

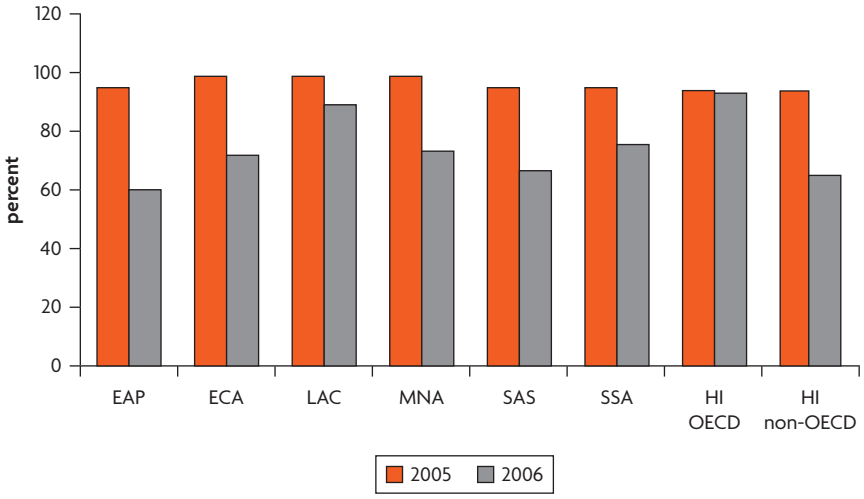
In the case of preferences granted by the European Union and the United States unilaterally or under reciprocal trade agreements, detailed, easily accessible customs data exist that allow accurate estimates of how much trade is occurring under such preferences. Almost half of U.S. imports and about 63 percent of EU imports in 2006 are subject to MFN-0 rates. However, at 29 percent, the corresponding figure for U.S. imports from developing countries is much lower, as these countries tend to export more goods that are more protected; some examples are sugar and garments. For those countries that already have a high percentage of their exports entering the EU and the United States under MFN-0 rates, preferences are largely irrelevant. Afghanistan, Burundi, the Central African Republic, Djibouti, Guinea, Guinea-Bissau, Sierra Leone, and Zambia have over 97 percent of their exports to the United States facing MFN-0 duties. For the EU, over 98 percent of the exports from Angola, Burundi, the Central African Republic, Liberia, and Sierra Leone and 52 percent of those from least developed countries faced MFN-0 duties.[28]

In addition to those goods subject to MFN-0 tariffs, almost 23 percent and 17 percent of imports by the United States and EU, respectively, were eligible for some form of preference (34 percent and 16 percent, respectively, when considering preferences given to developing countries only). The overall value of such potential preferences was, however, 0.9 percent of the value of U.S. imports and 1.1 percent of the value of EU imports from the eligible countries.[29] The corresponding figures for developing countries were 1.2 percent and 1 percent (figure 2.19). The remaining 29 percent of U.S. imports was not eligible for preferences and on average paid an MFN tariff of 5.3 percent. Of total EU imports, 20 percent were not eligible for preferences and instead were subject to an average MFN tariff of 7.1 percent.

Three measures were calculated to assess the extent to which countries take advantage of the preferences that they are granted. The first is the "take-up rate of preferences," defined as the ratio between the value of a country's exports claiming some kind of preferences and the value of exports eligible for preferences. The take-up rate for U.S. and EU trade partners is 66 percent. For the subset of developing countries, these rates are only slightly lower. The "value of preferences," which takes into consideration the actual tariff savings on those exports for which preferences are claimed, is generally small relative to the overall value of a beneficiary country's exports to the United States and EU, equivalent to about 3.8 percent on average.[30] The indicator varies a great deal among regions and countries (see figure 2.19 and table 2.6), with the average LAC country benefiting the most from EU and U.S. preferences and

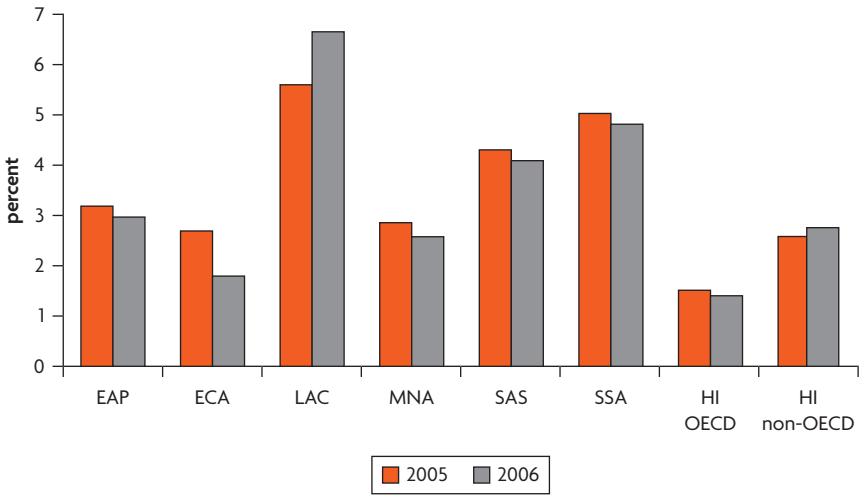
Figure 2.19. Benefits from Preferences Vary across Regions from Low to Modest

A. Value of claimed EU and U.S. preferences



Note: Value of claimed preferences (tariff savings) expresses as a percent of bilateral exports to the EU and United States.

B. Utilization rate of EU and U.S. preferences



Note: The utilization rate is the ratio of the value of claimed preferences and the value of potential preferences.
Sources: World Bank calculations based on USITC tariff and trade flows data for the United States; Trade Analysis and Information System (TRAINS) tariff and European Statistics Database (EUROSTAT) detailed trade flows for the EU.

ECA countries benefiting the least. The top 20 beneficiary list (table 2.6) is dominated by the least developed among the African, Caribbean, and Pacific countries that benefit from the EU's "Everything But Arms" initiative and from the United States' African Growth and Opportunity Act. In addition, the value of preferences is high for some MNA countries with which the United States has an FTA (for example, Jordan) or that benefit from especially low

Table 2.6. Some Countries Draw High Benefits from Preferences, Others None

Country	Preferences utilization rate (%) (EU + U.S., 2005–06)	Preferences value (% of exports) (EU + U.S., 2005–06)	Country	Preferences utilization rate (%) (EU + U.S., 2005–06)	Preferences actual value (% of exports) (EU + U.S., 2005–06)
1. Swaziland	99.6	33.5	157. Marshall Islands	73.0	0.0
2. Fiji	99.9	31.1	158. China	59.7	0.0
3. Belize	99.8	27.2	159. Timor-Leste	9.2	0.0
4. Dominica	99.6	25.7	160. Liberia	24.6	0.0
5. Andorra	100.0	22.6	161. Central African Rep.	30.0	0.0
6. Guyana	99.6	21.9	162. Brunei	0.7	0.0
7. Mauritius	96.7	21.7	163. Cayman Islands	12.9	0.0
8. Barbados	96.8	18.9	164. Iraq	6.3	0.0
9. Seychelles	92.7	18.7	165. Bermuda	0.0	0.0
10. Maldives	98.8	18.7	166. Channel Islands	0.0	0.0
11. Malawi	97.4	16.3	167. Hong Kong, China	0.0	0.0
12. Jordan	97.6	14.7	168. Isle of Man	0.0	0.0
13. Lesotho	99.8	14.6	169. Japan	0.0	0.0
14. Haiti	98.1	14.3	170. Korea, Dem. Rep. of	0.0	0.0
15. Solomon Islands	99.5	12.4	171. Korea, Rep. of	0.0	0.0
16. Greenland	99.7	12.0	172. Myanmar	0.0	0.0
17. Madagascar	95.5	11.4	173. New Zealand	0.0	0.0
18. Cape Verde	90.2	11.3	174. Puerto Rico	0.0	0.0
19. Cuba	97.1	11.1	175. San Marino	0.0	0.0
20. St. Lucia	99.5	10.2	176. Taiwan, China	0.0	0.0

Sources: World Bank calculations based on USITC tariff and trade flows data for the United States; TRAINS tariff and EUROSTAT detailed trade flows for the EU.
Note: Countries ranked by value (expressed as a percent of bilateral exports) of claimed preferences.

preferential tariffs (thus high preference margins) under its Generalized System of Preference scheme (for example, the West Bank and Gaza and Egypt, although they do not make the top 20 list).

The third preference measure is the "utilization rate of preferences," defined as the ratio between the value of actual preferences claimed and the value of potential preferences (see footnote 41). Despite common concerns about restrictive standards and rules of origins discouraging exports from developing countries with weak institutional capacities and limited processing facilities for high-value added, the overall picture in terms of utilization of preferences is positive, with an overall rate of 71 percent. However, Chad, the Republic of Congo, and Gabon are examples of countries characterized by limited utilization of U.S. preferences, with both take-up and utilization rates below 30 percent. Afghanistan, Chad, and other small countries, such as Brunei, Macao (China), and the Marshall Islands, are examples of countries with low utilization of EU preferences, below 20 percent.

Overall Business and Institutional Environment

The prevailing business environment and the quality of governance in a given country can significantly affect the country's performance in world trade.[31] Businesses face lower transactions costs in countries that have better institutional environments; similarly, exporters face lower transactions costs when exporting in better institutional environments. Entry and expansion of businesses is supported by a good institutional environment. Better business environments can also be expected to support the growth of exports and stability of export growth. Risks associated with exporting are lower when the business environment, and therefore supplies, inputs, and distribution needs are more predictable and stable and can support new product lines, diversification, and innovation. Natural resource/mineral exporters, or exporters requiring less support from the overall business environment and domestic market conditions, can be expected to do better than manufacturing exporters in poor institutional environments. Conversely, as the literature indicates, rents from natural resources may encourage rent seeking and corruption and lead to worse institutional environments.

The "Ease of Doing Business Rank" from the World Bank's Doing Business project captures information on a number of dimensions relevant to trade. It measures several aspects of regulation and processes required to start and operate businesses, to enforce contracts, and to trade across borders, among others, and ranks countries along all these categories. The latest rankings are based on surveys conducted in 2007.[32] A higher ranking in the Doing Business database denotes worse institutional/business environments.

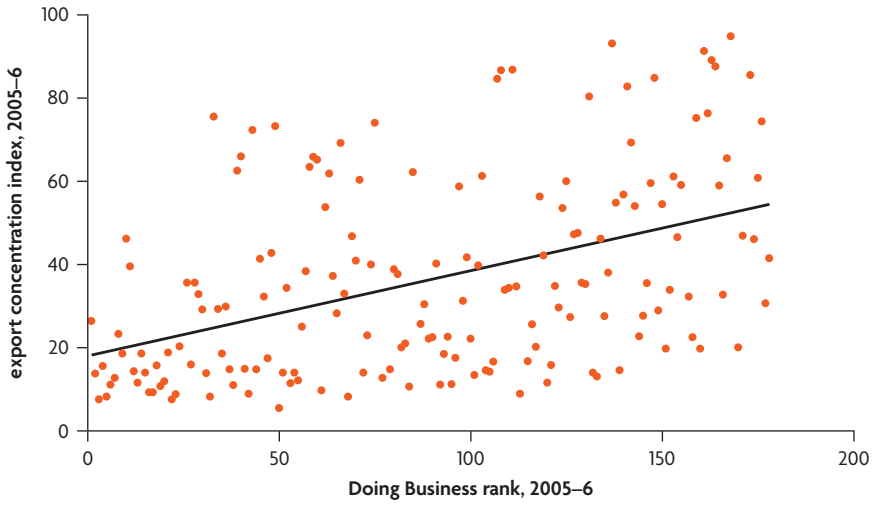
Figure 2.20 (panels A and B) indicates that countries having better institutional environments also tend to have a higher share of manufacturing exports and lower export concentration. In fact, worse performance on institutional rankings tends to go along with a higher share of mining exports.

The Worldwide Governance Indicators (WGI), which provide alternative measures of the institutional environment, are also included in the WTI database.[33] Two measures are considered here: regulatory quality and control of corruption.[34] Regulatory quality measures the ability of the government to formulate sound policies and regulations that permit and promote private sector development. Control of corruption measures the extent to which public power is exercised for private gain, including petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.

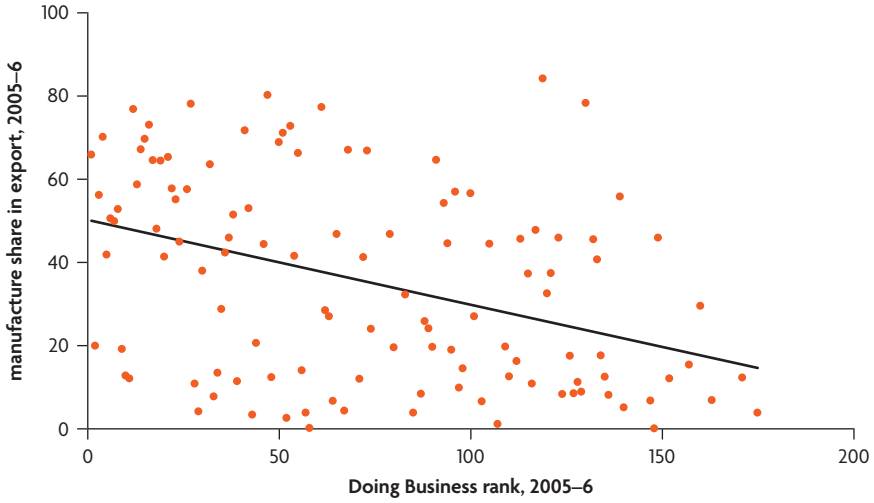
Countries that have better regulatory quality on average also tend to have a greater share of manufacturing and services in exports and lower export concentration. Figure 2.20 (panels C and D) shows some of these relationships. Conversely, countries whose production/export bundles are very concentrated in minerals/commodities have greater opportunity for rent seeking and corruption, as well as lower demand for competitive markets and effective regulation, though these are instances where improvements in regulatory quality are most needed (mining share in exports is indeed lower in countries with better governance). In addition, real export growth and export growth volatility are lower in countries with better regulatory quality.[35] (This is not shown in the graphs). Similar results hold for countries that have lower corruption (or better control of corruption).

Figure 2.20. Countries with Better Institutional Environments Tend to Have Lower Export Concentrations and Higher Shares of Manufacturing Exports

A. Doing Business rank versus Export Concentration Index



B. Doing Business rank versus manufacturing share in exports



C. WGI regulatory quality versus export product concentration

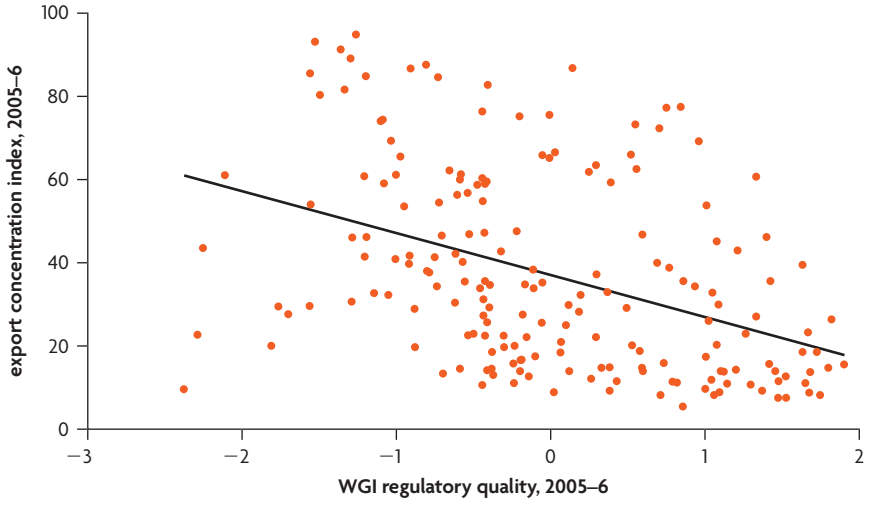
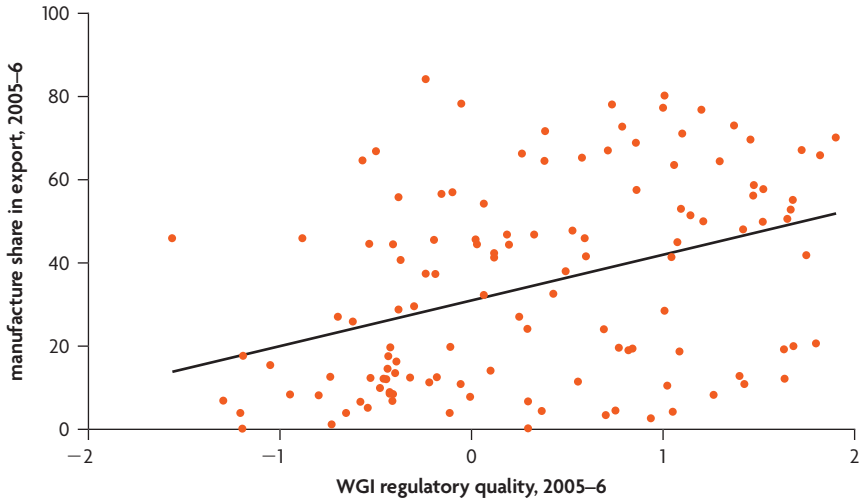


Figure 2.20. ***(Continued)***

D. WGI regulatory quality versus manufactures share in exports



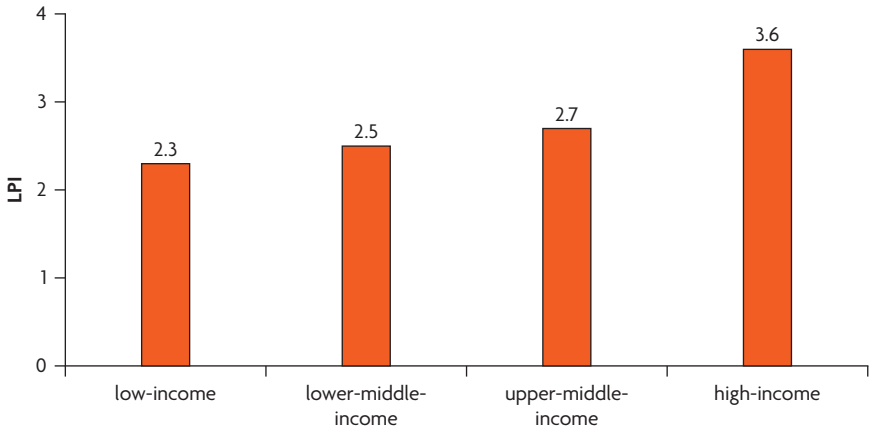
Trade Facilitation[36]

The quality and performance of trade facilitation and logistics services have a significant effect on trade and competitiveness. As it complements existing international indicators that measure some aspects of the logistics environment (such as the World Bank's Doing Business measures and the World Economic Forum's Global Competitiveness Index), a recent study by the World Bank provides a comprehensive assessment of the logistics gaps and constraints facing 151 countries (World Bank 2007b). The composite Logistics Performance Index (LPI) summarizes seven areas of performance: (i) efficiency and effectiveness of the clearance process by customs and other border control agencies; (ii) quality of transport and information technology infrastructure for logistics; (iii) ease and affordability of arranging shipments; (iv) competence in the local logistics industry (for example, transport operators and customs brokers); (v) ability to track and trace shipments; (vi) domestic logistics costs (for example, costs of local transportation, terminal handling, and warehousing); and (vii) timeliness of shipments in reaching destination.[37]

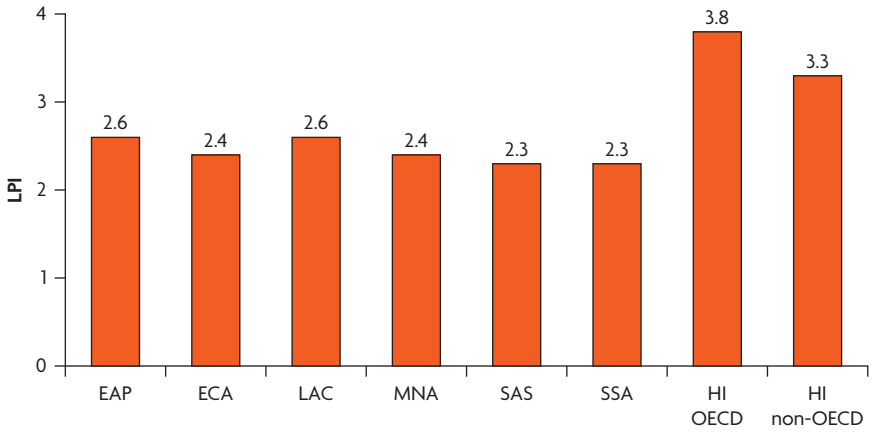
Unsurprisingly, countries that top the LPI rankings are all developed economies that are major global transport and logistics hubs (for example, Singapore, which ranks first) or have a strong service industry (Switzerland). Logistics services in these countries tend to benefit from economies of scale and are often sources for innovation and technological change. The average score on the index for high-income countries (3.7 out of a maximum of 5) is significantly ahead of that of even the best-performing developing regions, as shown in figure 2.21. Among the latter, the ECA and East Asia regions score highest, and SAS and SSA the lowest. The high-income countries score 1.6 times higher

Figure 2.21. Countries with Best Logistics Performance Are All Developed Economies That Are Major Global Transport and Logistics Hubs

A. LPI (1–5 scale), by income, 2006



B. LPI (1–5 scale), by region, 2006

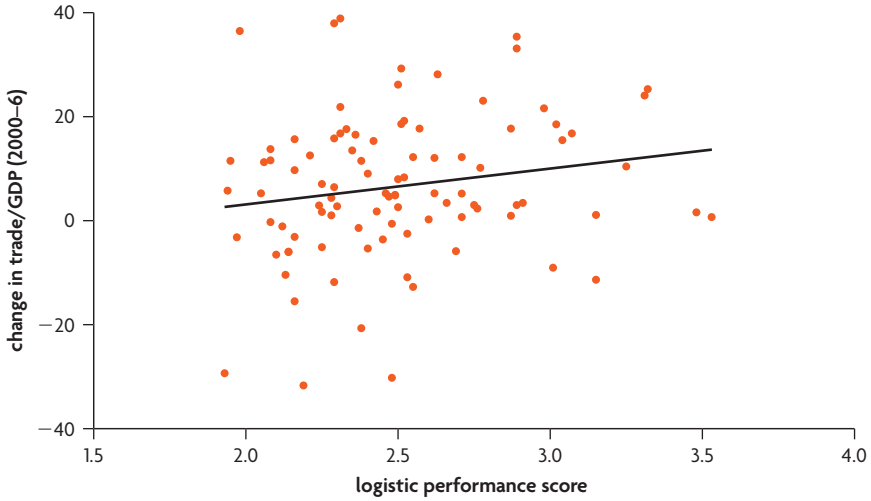


Note: Underlying surveys were conducted in 2006. Maximum value of index is 5 and minimum is 1.

than the low-income countries on average. There are no developing countries among the top 20 performers and no high-income countries among the bottom 20 (all low-income countries).

At the bottom of the rankings are low-income countries that are landlocked and geographically isolated or countries isolated because of conflict or severe governance problems, like Afghanistan, which ranks last. In fact, landlocked developing countries, especially in Africa and in Central Asia, are the most logistically constrained, as they typically suffer from difficult geography, poor access to logistics services in neighboring countries, and high coordination and transportation costs. The average LPI is in fact lower for landlocked countries in SSA than for the region as a whole (2.22 versus 2.35). Nonetheless, three landlocked countries appear in the list of the top 15 performers in the SSA region (out of 39 ranked in the LPI): Uganda (regional 8/global 83),

Figure 2.22. Countries with Better Trade Logistics Integrate Faster



Source: World Bank 2007b.

Malawi (13/91), and Zambia (15/100). These three countries are served by relatively efficient logistics providers. Uganda's trucking industry has developed as a response to the demise of the Uganda railroad system. Malawi and Zambia are integrated into South Africa's relatively efficient transit system.

Differences in logistics performance are not simply linked to a country's income or development level. While all developed countries are top performers, there is much dispersion among lower-middle-income and higher-middle-income countries. For example, China ranks 30th of 150, while countries in higher income groups, such as oil producers, rank lower. In addition to landlocked countries discussed above, many of the countries ranked low on the LPI within their regional and income groups are oil and gas producers. Algeria (ranked 140th) lags significantly behind its neighbors Tunisia (60) and Morocco (94). The same applies to the high-income Bahrain (36), Saudi Arabia (41), Kuwait (44), and Qatar (46) relative to other high-income non-OECD countries. While good logistics may promote exports, a strong manufacturing sector may also promote better logistics. A lower LPI in these countries may reflect these factors at work.

Countries doing relatively well on logistics performance are also likely to do well in trade expansion and export diversification. This is the case for instance of countries like South Africa (LPI rank of 24), Malaysia (27), Chile (32), and Turkey (34) among the upper-middle-income countries; China (30) and Thailand (31) among the lower-middle-income; and India (39) and Vietnam (53) among the low-income (see tables 3.1 through 3.4). As illustrated in figure 2.22, countries with better performance on logistics also experience higher growth in their trade integration (trade-to-GDP ratio).

CHAPTER 3

Trade Outcomes

In 2007, based on World Bank estimates as of November–December 2007, global trade in goods and services grew on average at an estimated 7.7 percent in real terms, within the range of the 7 to 9 percent growth experienced in the last decade. Export growth for developing countries (that is, low- and middle-income countries) slowed to its lowest level (7.1 percent) since the 1990s. High-income country performance also slowed, but only compared to the period 2005–6, as its 2007 trade growth was nonetheless above historical levels, so that in the most recent year both groups have seen similar growth rates, at a little over 7 percent (see table 3.1).[1]

The lower trade and export growth among developing countries was largely due to slower growth among low-income countries, as illustrated in figure 3.1 (for trade) and figure 3.2 (for exports). The only region with double-digit (real) trade growth on a cross-country average basis in 2007 was ECA, which recorded 10.6 percent growth and close to 10.2 percent for real export growth

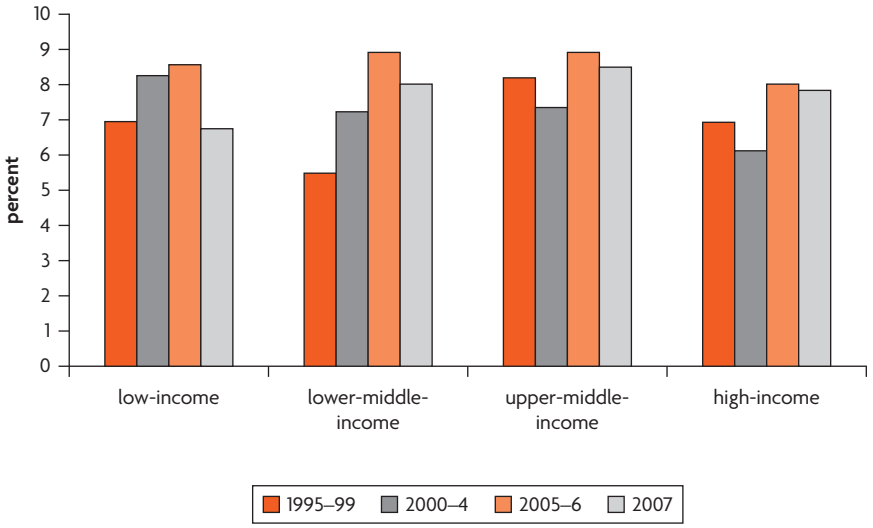
Table 3.1. Developing Countries' Export Growth Decelerated in 2007

	Real trade growth percent			
Countries	**1995–99**	**2000–4**	**2005–6**	**2007**
High-income	6.9	6.1	8.0	7.8
Developing	6.7	7.6	8.8	7.7
World	6.8	7.2	8.6	7.7
	Real export growth percent			
	1995–99	**2000–4**	**2005–6**	**2007**
High-income	6.5	6.1	7.5	7.2
Developing	7.9	8.2	8.6	7.1
World	7.6	7.7	8.4	7.1

Figure 3.1. Low-Income Countries Experienced Largest Trade Growth Slowdown in 2007

A. Real trade growth, by region

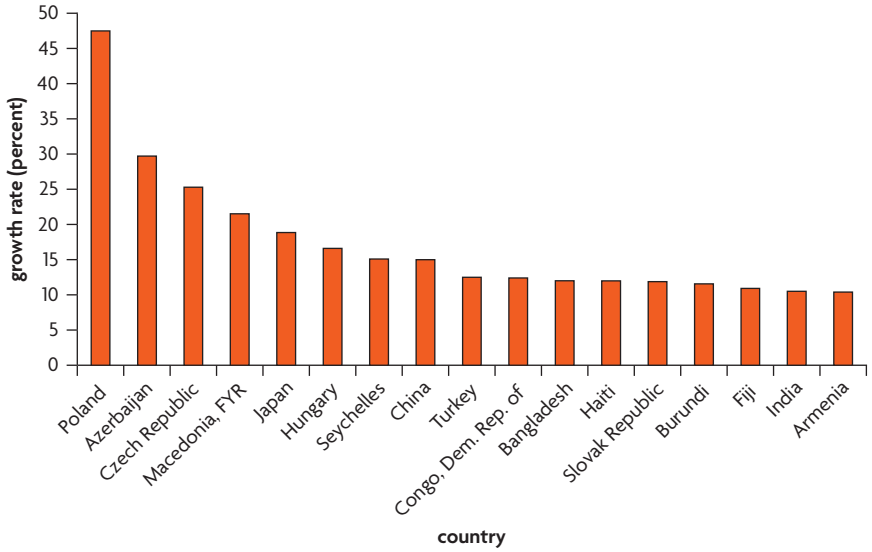
B. Real trade growth, by income



(both significantly higher than the rest of the world) and which improved its performance from 9.7 percent (the same rate for export growth) in 2005–6. Other regions with trade and export growth rates above the world averages in 2007 were EAP and high-income OECD at around 8.5 percent. Trade growth in the LAC region at 7.6 percent (6.3 percent for exports) was close to the world average. The MNA region's trade growth at 7.1 percent was around the world average (5.4 percent for exports).

All other regions' trade growth rates were lower than that of the rest of the world, significantly so in the case of the high-income non-OECD group and

Figure 3.2. Services Trade Grew the Fastest in Mostly High-Income and Upper-Middle-Income Countries (2007)



SSA. SSA countries experienced the slowest growth in the developing world, at 6.4 percent (6.1 percent) on average, reflecting a continuous slowing from 7.9 percent (7.8 percent) in the mid-2000s and around 7 percent (8.4 percent) in the preceding decade. Trade in the SAS region, which was the top performer in 2005–6 with an average growth rate of 11.9 percent (15.3 percent for export growth), grew at only 6.9 percent (7.0 percent) in 2007. Trade in the high-income non-OECD countries grew at the slowest pace, 4.4 percent (3.2 percent for export growth), but down from the second highest level in the mid-2000s.

At the country level, the reasons behind the very good performance and poor performance have varied (see tables 3.2 and 3.3). At or near the top of the trade and export growth lists (but not the world export market share growth list) is Bhutan, which continues a trend of robust trade growth since the late 1990s, but more recently is benefiting from stronger demand by India for its hydroelectric power exports and globally for its tourism services. Among the countries with the fastest trade and export growth in 2007 are some African oil, gas, and other commodity exporters, such as Sudan, Angola, and Sierra Leone (see table 3.2). The ECA region's top standing in 2007 on trade growth performance is driven to a great extent by an oil exporter in Central Asia (Azerbaijan with a 11.8 percent trade growth rate and 21.1 percent export growth rate); three Eastern European countries that recently acceded to the EU (the Slovak Republic, Hungary, and the Czech Republic, with trade and export growth rates between 12–18 percent); and a country that also is benefiting from stronger association agreements with the EU (former Yugoslavia Republic of Macedonia). The remaining high-performing countries are a mix of low-, middle-, and high-income countries from all regions, including Haiti.

Table 3.2. Many MNA and SSA Countries Are among Those with the Lowest Trade Growth

Country	Real trade growth (latest 2007 or 2006)	Country	Real trade growth (latest 2007 or 2006)
1. Bhutan	30.4	141. Dominica	3.3
2. Sudan	25.2	142. Côte d'Ivoire	2.9
3. China	21.7	143. Kuwait	2.9
4. Angola	18.4	144. Syrian Arab Rep.	2.9
5. Tunisia	17.8	145. Fiji	2.6
6. Morocco	17.5	146. Lesotho	2.3
7. Vietnam	17.2	147. United Kingdom	2.3
8. Slovak Republic	16.9	148. West Bank and Gaza	1.8
9. Macao, China	16.4	149. Pakistan	0.9
10. Sierra Leone	14.3	150. Papua New Guinea	0.9
11. Armenia	14.1	151. Congo, Rep. of	0.7
12. Macedonia, FYR	14.0	152. Tajikistan	0.6
13. Romania	13.9	153. Swaziland	0.4
14. Latvia	13.8	154. Bosnia and Herzegovina	−0.12
15. Italy	13.7	155. Chad	−0.4
16. Haiti	13.5	156. Yemen, Rep. of	−0.7
17. Poland	13.5	157. Zimbabwe	−2.4
18. Benin	13.3	158. Bahrain	−3.6
19. Germany	13.1	159. Algeria	−4.2
20. Korea, Rep. of	12.8	160. Mauritania	−7.6

Among them are many countries that implemented ambitious liberalization programs, linked to their accession to the WTO (China and Vietnam) or to the EU during the last decade. Two MNA countries that are not oil exporters are also near the top of the list: Morocco and Tunisia, which have favorable market access to the EU and have just started ambitious economic reform programs.

Some of these same countries, such as Poland, FYR Macedonia, and the Slovak Republic in Europe, and China and Haiti among developing countries, are also top performers in services export growth. Other low-income countries with growth rates of services exports above 10 percent include the Democratic Republic of Congo, Bangladesh, and Burundi (see figure 3.2).

At the other end of the spectrum, the list includes oil producers that have either suffered from declining oil production and net oil exports (for example, the United Kingdom, Mexico, and Norway) or have not increased their production quickly for a variety of physical and political reasons (for example, Kuwait, Chad, Algeria, Bahrain, Nigeria, Oman, and the Islamic Republic of Iran), including deliberately restraining their export volumes to sustain higher world prices. The remaining ones are small economies, many of which have

Table 3.3. Energy and Commodity Producers in SSA and a Number of Central Asian Countries Expanded Their World Export Market Shares the Most

Country	World market share growth of export (2006/7 latest)	Country	World market share growth of export (2006/7 latest)
1. Maldives, The	26.8	151. Seychelles, The	−8.4
2. Benin	26.0	152. South Africa	−8.9
3. Sudan	25.1	153. Syria	−9.1
4. Angola	23.4	154. Papua New Guinea	−9.3
5. Kazakhstan	21.9	155. Pakistan	−9.4
6. Mongolia	19.7	156. Bahamas, The	−9.5
7. Macedonia, FYR	18.7	157. Burkina Faso	−9.5
8. Azerbaijan	16.5	158. Nigeria	−10.6
9. Slovak Republic	15.5	159. Algeria	−11.3
10. Tajikistan	14.7	160. French Polynesia	−11.5
11. Libya	13.0	161. Swaziland	−11.6
12. Hungary	12.4	162. Yemen, Rep. of	−12.1
13. Guinea	12.2	163. Bahrain	−12.3
14. Croatia	11.8	164. Suriname	−13.0
15. China	11.2	165. Botswana	−13.2
16. Bosnia and Herzegovina	11.1	166. Kuwait	−13.3
17. Poland	10.7	167. Chad	−14.8
18. Moldova	9.8	168. Mauritania	−22.2
19. Czech Republic	9.4	169. Tonga	−35.8
20. India	9.3	170. Zimbabwe	−96.6

suffered from domestic political uncertainties or subregional conflicts (for example, the Democratic Republic of Congo and Zimbabwe).[2] The 20 worst export performers (in terms of growth) include 7 MNA countries and 7 SSA countries. Pakistan's weak trade performance clearly dragged down that of the entire SAS region, which contains only a few, mostly large, countries.

Table 3.3 lists the top and bottom performers in terms of expanding their world export market share. This indicator can help identify countries that are succeeding in improving the productivity and competitiveness of their export sectors and thus in growing at rates exceeding the average growth rate of world demand for their export basket. However, only a few countries like Benin and China appear to fall in such category. Energy and commodity exporters in SSA and a number of Central Asian countries dominate the top 20 list for this indicator of trade performance. The next large group consists of trading partners and neighbors of the EU and of China. A notable feature is that no high-income country appears on the top list. Another is that,

except for China and India, no other large emerging economy is in the top list. However, countries on the bottom list are mostly those challenged by either poor economic policies, remoteness from major destination markets, landlockedness, or internal political crises.

There has been some change in the structure of exports in global trade and across regions. Globally, real merchandise exports for the world have been expanding at a slower pace than services exports since the mid-1990s through 2006, which accounted for about 27 to 29 percent of total exports (and around 11 to 13 percent of GDP). In recent years, however, growth of services exports has decelerated and according to preliminary World Bank estimates was slower in 2007 than for merchandise exports. Real growth in services exports went from 13.9 percent during 1995–99, to 12.1 percent in 2000–4, 8.7 percent in 2005–6, and 6.3 percent in 2007 for the world as a whole.

Over these same years, services trade has grown the fastest in the upper-middle-income country group, but average growth rates in the low- and lower-middle-income countries were still higher than those of the high-income countries. The MNA and ECA regions saw the fastest expansion in services exports through 2004, with the latter sharing the lead role in the high-income OECD countries during 2005–6, both with average annual growth rates of 13.7 percent. MNA instead moved in the mid-2000s from the leader to the slowest performer, while SSA raised its average growth rate to 11.7 percent to become the second fastest growing region after ECA.

In the LAC region, the services share of exports fell by 13 percent (the largest decline and a significant one). SSA and SAS followed with 11 percent declines, partly due in the latter case to its still stagnant growth in the late 1990s and possibly stagnant prices for its booming services exports in the more recent years. Among developing regions, SAS has the largest share of services at about 31 percent of total exports, with the EAP, MNA, and LAC regions just below 30 percent, but still well below the relatively stable share of exports of the high-income OECD countries (37 percent in 1995–99 and in 2006).

As a share of global exports, the overall merchandise share has been fairly stable between 1995–99 and 2006, around 71 to 73 percent. However, the share of agriculture has dropped significantly, from 23 to 16 percent (a decline of over 30 percent). At the same time, manufacturing has increased its share by 13 to about 36 percent, and the mining (including metals and fuels) share rose by 23 to 22 percent.

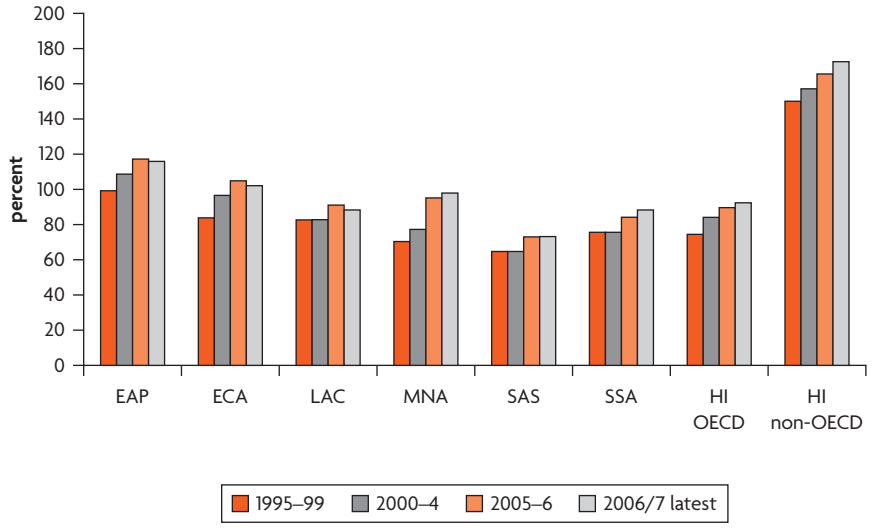
The mining/fuel share of exports has increased since 1995–99 in all regions but MNA (in which it has historically accounted for over 40 percent of exports) and EAP. In some cases, this increase has been very large: for example, in LAC the share rose from 14 to 25 percent, in ECA from 19 to 26 percent, and in SSA from 21 to 23 percent—all significant changes. The share of manufacturing in exports rose in the EAP (by 15 percent from an already high share of 44 percent) and SSA regions (by 71 percent from a low share of 10.4 percent) but fell by a large amount (−33 percent or about 17 percentage

points) in the SAS region to 34 percent. Over the same period, the share of agricultural exports increased 61 percent for the SAS region to 21 percent by 2006. In other developing regions, the share was either stable or declining (in SSA it declined 34 percent, in ECA 28 percent, and in EAP 26 percent). The high-income OECD countries saw a decline in their shares of manufacturing and agriculture and an increase in the share of mining exports.

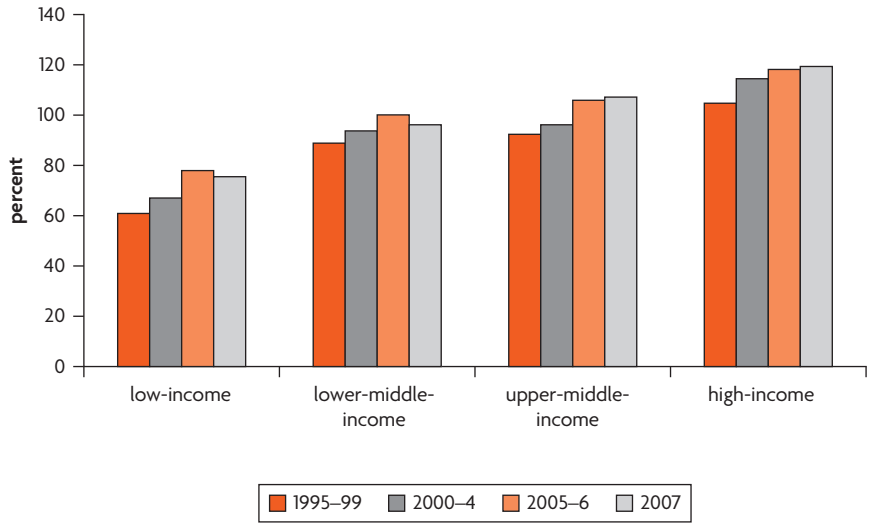
All regions and income groups have become steadily more integrated with the world economy as measured by their trade-to-GDP ratios (see figure 3.3);

Figure 3.3. Trade Integration Has Been Rising across All Income Groups and Most Regions

A. Trade share of GDP, by region, percent (merchandise + services trade)



B. Trade share of GDP, by income, percent (merchandise + services trade)



the world average has increased from 86 to 97 from 1995–99 to 2007. The average trade integration ratio for the high-income non-OECD group (mostly small countries and/or mostly oil and gas producers) has climbed from 165 percent in the late 1990s to the 2007 level of 208 percent, significantly higher than all regions and income groups. In the developing world, EAP is the most integrated, with a 116 percent trade-to-GDP ratio in 2007, followed by ECA with 105 percent. SAS has the lowest trade-to-GDP ratio. The other regions (MNA, LAC, and SSA) fall in between, around the high-income OECD average integration ratio of 89 percent. As seen in figure 3.3, second panel, there is a positive link between the importance of trade GDP and income level. The average integration ratio of upper-middle-income countries is around 123 percent, while the corresponding number is 80 percent in low-income countries.

All regions are more integrated than they were a decade ago, but the fastest integrators have been the MNA (from 70 percent to 97 percent), ECA (from 88 percent to 105 percent), and EAP (from 99 percent to 116 percent) regions. The SAS region's integration ratio is also slightly higher with respect to the previous decade.[3] Regions whose average trade shares fell slightly in the most recent year are EAP, ECA, and LAC.

In addition to income level, country size is also an important determinant of a country's integration.[4] In fact, small economies tend to be more dependent on trade—8 of the top 10 economies could be characterized as "small" in terms of population and territorial size (the exceptions being Malaysia and Zimbabwe). Small island economies, in particular Singapore, Hong Kong (China), and the Seychelles, show an integration ratio of more than 300 percent. Zimbabwe's ratio (269 percent) has been rising fast even as official trade shrinks as nominal GDP in U.S. dollars has fallen even faster. Due to large domestic markets and/or a more diversified economy and endowments, large countries like Japan, the United States, and Brazil (with openness ratios of 26–35 percent) are at the bottom of the list for 2007. Australia (39 percent) and India (45 percent, up from 25 percent in the late 1990s) are close behind.

However, 7 of the 20 least integrated countries are small African economies.[5] In these countries, policies and/or other factors (such as conflict, landlockedness, and distance from main trading partners) may have limited their trade integration. Most of the landlocked countries (37 in total), and especially those in West and Central Africa (10), with average ratios of 90 and 51, respectively (excluding Zimbabwe as an outlier), are less integrated than their regional and income group comparators. The exceptions (15) constitute a sizable minority, however, suggesting that the inherent drawbacks of landlockedness are not insurmountable, especially when surrounded by dynamic or rich neighbors. These landlocked countries with relatively high trade integration are six European states in and outside the EU, four Southern African countries, and five others: Tajikistan (with a 142 percent trade share of GDP), Mongolia (125 percent), Paraguay (121 percent), the

Table 3.4. Southeast Asian and Small Countries Are More Integrated Than Larger Developing Countries

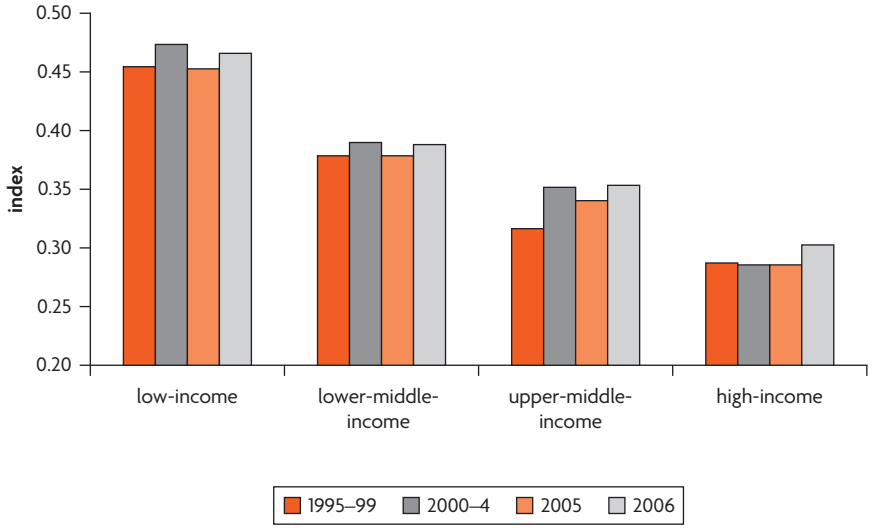
Selected developing country (1–20)	Trade integration ratio (trade as percent of GDP, latest 2006/7)	Change in percent (1995–99 to 2005–7) and rank	Selected developing country (57–76)	Trade integration ratio (trade as percent of GDP, latest 2006/7)	Change in percent (1995–99 to 2005–7) and rank
1. Malaysia	209.7		57. Uruguay	62.7	
2. Guyana	175.0		58. Turkey	61.1	
3. Vietnam	168.1	61.3 (3rd)	59. Tanzania	60.8	
4. Jordan	149.4		60. Guatemala	58.6	
5. Thailand	147.7	51.3 (4th)	61. Indonesia	56.7	−7.0 (66th)
6. Lebanon	146.0	73.3 (1st)	62. Eritrea	56.4	−47.7 (76th)
7. Cambodia	145.1	70.4 (2nd)	63. Kenya	55.9	
8. Panama	143.4		64. Sierra Leone	53.6	
9. Bulgaria	131.0		65. Venezuela	52.5	
10. Belize	128.9		66. Russian Fed.	50.7	0.1 (60th)
11. Mauritania	125.4	48.4 (6th)	67. Cameroon	50.3	
12. Lithuania	122.7		68. Peru	48.5	
13. Congo, Rep. of	122.6		69. Benin	48.1	−16.4 (71st)
14. Nicaragua	121.2	45.1 (7th)	70. Bangladesh	47.5	
15. Tunisia	119.3		71. India	45.2	
16. Togo	117.8	35.6 (11th)	72. Sudan	43.6	
17. Libya	106.8	58.0 (5th)	73. Argentina	43.3	
18. Ghana	105.5	33.7 (13th)	74. Pakistan	41.9	
19. Costa Rica	104.6		75. Colombia	27.3	3.3 (58th)
20. Croatia	103.8		76. Brazil	25.9	

Note: This selected group of developing countries excludes all high-income, landlocked, and small island countries and territories.

Kyrgyz Republic (116 percent), and the Democratic Republic of Congo (93 percent).

To allow a deeper comparison among countries, table 3.4 shows the rankings on this indicator for a subset of developing countries that excludes small island, high-income, and landlocked countries and territories.[6] Southeast Asian and small countries dominate the top list, with many exhibiting also the biggest changes in trade integration. The bottom list has a bigger share of large countries and a predominance of LAC (7) and SSA (7) countries. China is not on the chart, but it has one of the fastest growing integration ratios, currently 76 percent, up from just 38 percent in the late 1990s. This is quite a high number when compared with other large countries, whether developed or developing. On the other side, a number of oil and mineral exporters concentrated in SSA also show a decline in trade integration, like Angola (−32.1 percent), Namibia, Nigeria, and the Republic of

Figure 3.4. Among Developing Regions, MNA and SSA Are the Least Diversified, and ECA and SAS the Most



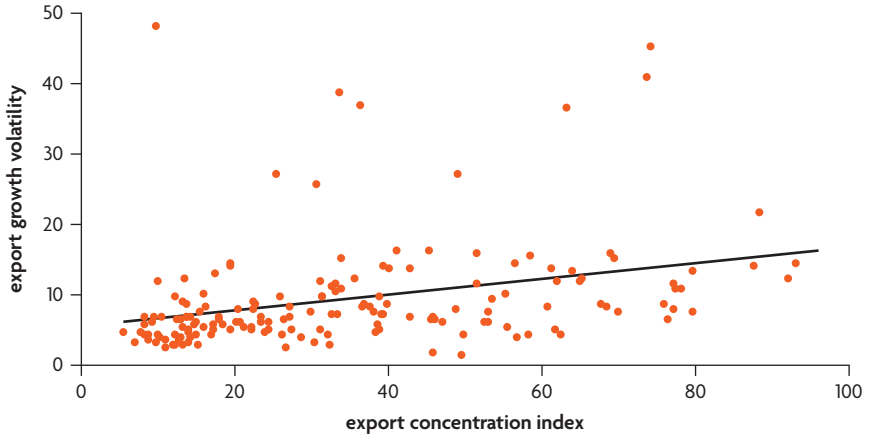
Congo, as well as two larger and more diversified EAP countries like Indonesia and the Philippines.

As countries integrate further into the world economy, they also seek to reduce risks associated with terms of trade fluctuations. They may at the same time seek to raise exports by finding new markets or new product niches. Different indicators are used to assess the degree of merchandise export diversification. The WTI database has product and market concentration indices (at the SITC 3-digit level), number of products exported, and share of top five export products that show broadly similar results in export structures across regional and income groupings.[7] Figure 3.4 shows that countries with higher income per capita also have lower export concentration. High-income economies (especially OECD members) are significantly more diversified than developing countries.[8] Looking at the data overall, the WTI data provide some evidence that export product concentration is positively and significantly correlated with volatility of real export growth (see figure 3.5).[9,10]

Average world export concentration has declined since the late 1990s, significantly so for the ECA region and high-income OECD countries. Among developing regions, MNA and SSA countries are the least diversified, and ECA and SAS countries are the most diversified.[11] The degree of export diversification may be affected by many factors, but the data show that the most specialized countries tend to be either mineral resource abundant (oil exporters like Venezuela) or very small island economies (for example, Samoa and Antigua and Barbuda).

The most diversified exporters are European countries, as 14 EU member states are in the 20 least concentrated list.[12] Table 3.5, however, has

Figure 3.5. Countries with Lower Export Product Concentration Exhibit Less Volatility of Real Export Growth (2000–06)



Note: The line is based on a simple OLS regression with an intercept. The regression coefficient is 0.11, significant at the 5 percent level.

Table 3.5. OECD and Large Developing Countries Are Most Diversified, While Oil Exporters, Small, Poor, Landlocked Countries the Least

Country	Export concentration, 2006	Country	Export concentration, 2006
3. United States	7.6	170. Guinea-Bissau	74.9
7. Korea, Dem. Rep. of	8.6	171. Saudi Arabia	75.5
11. Brazil	9.07	172. Solomon Islands	76.6
12. Thailand	9.5	173. Maldives, The	76.7
16. Serbia	10.6	174. Tajikistan	76.9
19. China	11.0	175. Aruba	77.5
22. Croatia	11.9	176. Iran, Islamic Rep. of	78.2
24. Lebanon	12.0	177. Bahrain	78.7
26. Canada	12.4	178. Libya	79.9
27. Indonesia	12.9	179. Gabon	83.7
28. Argentina	13.0	180. Nigeria	85.1
EU-27 (1 . . . 20+)	13.5	181. Yemen, Rep. of	85.2
29. New Zealand	13.7	182. Congo, Rep. of	86.9
31. Bosnia and Herzegovina	13.2	183. São Tomé and Principe	86.9
32. India	14.2	184. Sudan	87.2
34. Ukraine	14.3	185. Equatorial Guinea	90.4
35. Jordan	14.5	186. Venezuela, R. B. de	91.1
36. Nepal	14.6	187. Micronesia	91.7
37. Japan	14.7	188. Iraq	92.4
39. El Salvador	15.0	189. Angola	95.5

been adjusted: the average for EU countries is shown in a single row to make it possible to show non-EU countries' relative standing. If the EU were considered a single entity, it would rank as the 12th most diversified exporter. About half the list would still be occupied by OECD countries, but the other half is populated by a variety of developing countries, including all large countries like Brazil, China, India, and Indonesia; a single low-income country, Nepal; and a country that is semi-closed to the outside world, the Democratic People's Republic of Korea. The list of the bottom 20 or least diversified economies includes 14 oil and gas exporters. If these were excluded, the 20 most concentrated country list would include Malawi, Bermuda, Burundi, the Faeroe Islands, Benin, the Seychelles, Samoa, New Caledonia, Zambia, Haiti, Vanuatu, Botswana, Mali, and Mauritania—all countries that are small, mostly poor, often landlocked, and many of which are in Africa.

Table 3.6, which excludes major oil producers who tend to have very concentrated export structures, shows that mineral products (such as diamonds in Botswana), primary products (mostly commodities), and tourism and/or fishery-related goods (as in the case of small island or coastal African and Pacific states) tend to account for a large fraction of the total merchandise exports of the least diversified countries. If oil exporters are included, however, the table of the most concentrated exporters would look very different. Equatorial Guinea, Angola, Chad, Iraq, Nigeria, and Libya would figure in the top 10. A highly concentrated export structure can be self-reinforcing due to exchange rate appreciation over time (caused by foreign exchange inflows in resource-abundant countries with booming mineral or commodity export sectors), which have a negative impact on the international competitiveness of other export sectors (referred to as Dutch disease). And indeed, the group of oil- and commodity-exporting developing countries has experienced an average annual real appreciation of over 2 percent since 1995.

Some countries export to many markets and others to only a few. Having a larger number of markets for products may help insulate exports from demand shocks in importing countries. The index of export market (destination) concentration (higher numbers reflect more concentrated markets), shows little variability among different income groups (average indices are in the range of 40–47). However, on a regional basis the SSA, LAC, and MNA regions are above 40 on average, compared to the SAS and the high-income OECD group with indices around 30.[13] Moreover, over time, SAS displays a large improvement in diversifying its destination markets, with the index dropping from 45 in the late 1990s to less than 30 by 2006, slightly lower than even the high-income OECD average. Other developing regions that have diversified export markets are EAP and LAC. On the import side, the picture is similar in terms of both patterns and trends except for the high-income countries exhibiting a much more diversified choice of source countries.

Table 3.6. Top 5 Export Products for 10 Most and 10 Least Diversified Countries, 2005

Country	Top 5 export products (Percent of exports)	Top 5 export products (shares of total exports)
Most diversified		
1. Italy	12.9	Pharmaceutical (4 percent), auto parts (3 percent), cars (2 percent), footwear (2 percent), industrial machines (2 percent)
2. Croatia	13.3	Ships (3 percent), wood (3 percent), pharmaceutical (3 percent), chair parts (2 percent), polyethylene (2 percent)
3. Netherlands	13.7	Oils (4 percent), computers (ADPMs) (3 percent), pharmaceuticals (3 percent), microcircuits (2 percent), computer parts (2 percent)
4. Austria	15.2	Cars (5 percent), auto parts (3 percent), engines (3 percent), pharmaceuticals (3 percent), sound recording equipments (2 percent)
5. United States	15.7	Microcircuits (5 percent), auto parts (4 percent), cars (3 percent), aircrafts (3 percent), pharmaceutical (2 percent)
6. Bulgaria	17.7	Copper (8 percent), flat-rolled iron (3 percent), outer garments (3 percent), electric circuit equipments (2 percent), jackets (2 percent)
7. Greece	18.9	Pharmaceuticals (6 percent), aluminum (5 percent), olive oil (4 percent), outer garments (2 percent), prepared vegetables (2 percent)
8. Poland	20.1	Auto parts (5 percent), cars (5 percent), internal combustion engines (4 percent), chairs (4 percent), furniture parts (3 percent)
9. China	20.2	Office machines (5 percent), machinery parts (5 percent), toys (4 percent), telecommunication parts (3 percent), sound and TV recorders (3 percent)
10. Romania	20.6	Footwear (6 percent), electric cable (5 percent), outer garments (3 percent), auto parts (3 percent), trousers (3 percent)
Most concentrated		
10. Mauritania	95.81	Iron ore (43 percent), frozen fish (26 percent), seafood (21 percent), other iron (3 percent), and fish (3 percent)
9. Bermuda	95.84	Ships (88 percent), pharmaceutical (4 percent), liquors (2 percent), iron ore (1 percent), nitrogen compound (1 percent)
8. Micronesia	96.08	Frozen fish (90 percent), fish (2 percent), coffee (2 percent), nonferrous metal (1 percent), bones (1 percent)
7. New Caledonia	96.60	Ferro-alloys (65 percent), nickel ores (26 percent), iron ores (3 percent), seafood (1 percent), and iron scrap (1 percent)
6. Palau	97.14	Fish (93 percent), construction machines (1 percent), prepared fish (1 percent), survey equipments (1 percent), bones/ivory (1 percent)
5. Liberia	98.03	Ships (79 percent), rubber (10 percent), tugs/vessels (7 percent), iron ores (1 percent), scrap iron (1 percent)
4. Cayman Islands	98.08	Ships (96 percent), coal (1 percent), flat-rolled iron (1 percent), fertilizers (0.4 percent), art (0.4 percent)
3. Guinea-Bissau	98.31	Nuts (86 percent), frozen fish (9 percent), seafood (2 percent), scrap iron (1 percent), saw logs (1 percent)
2. Botswana	98.50	Diamonds (88 percent), nickel ores (8 percent), beef (1 percent), industrial diamonds (1 percent), jerseys (0.4 percent)
1. Marshall Islands	99.17	Ships (91 percent), frozen fish (6 percent), fish (1 percent), coconut oil (0.4 percent), fish fillets (0.4 percent)

Note: This table does not include major oil exporters.

CHAPTER 4

Regional Analyses

East Asia and the Pacific[1]

EAP is one of the most dynamic regions, according to most trade performance indicators (see table 4.1). Based on simple (unweighted) cross-country averages, the region is one of the most integrated in terms of trade to GDP and has had a relatively high real growth in total trade since the mid-1990s. The regional average trade integration ratio (trade share in GDP) has risen from 92 percent in 1995 to 116 percent in 2007, the second highest in every year between 1995 and 2007 behind the high-income non-OECD country group. At 210 percent, Malaysia's trade integration is the highest in the region, followed by Vietnam at 168.1 percent. However, this indicator is not available for the majority of the Pacific islands, many of which would likely have high openness ratios. Indonesia's trade integration at 56.7 percent is the lowest of the EAP countries and customs territories and is also much lower than the global average (98.2 percent).

Real growth of trade in goods and services was estimated at 8.6 percent in 2007, well above the global average, while the mean export concentration index has remained relatively unchanged (at 38.3 in 2006 on a scale of 0 to 100, highest) since the late 1990s and in line with the global average. Among the economies in the region, trade performance varies greatly. Although outpaced in 2004–6 by Vietnam, China reclaimed the highest growth in total trade within the region in 2007 (at 21.7 percent). Cambodia has also consistently registered double-digit real trade growth this decade. These three countries acceded to the WTO in 2001, and their corresponding adoption of more open policies required for accession has probably helped to boost their recent trade performance. The other Association of Southeast Asian Nations (ASEAN) countries (with the exception of Laos) exhibit much lower trade growth rates. Papua New Guinea has the slowest growth rates in trade (−0.3 percent and 0.9 percent in 2006 and 2007, respectively).

Table 4.1. EAP Key Trade-Related Indicators

EAP region	Country	TTRI, 2006	Applied tariff trade weighted, 2007	MA-TTRI, 2006	ROW applied tariff trade weighted, 2006	Ease of doing business, 2007	LPI, 2006	Real growth trade, 2007	Real growth export, 2007	Export concentration index, 2006
Pacific Island States		**1.7**	**12.1**	**0.7**	**3.1**	**72.5**	**2.2**	**2.6**	**1.1**	**57.4**
	American Samoa	..	..	..	1.5	..	..	..	..	..
	Fiji	..	..	..	2.4	36.0	..	2.6	2.7	29.5
	Kiribati	..	..	..	2.7	73.0	..	..	..	45.4
	Marshall Islands	..	..	..	0.4	89.0	..	..	..	..
	Micronesia, Federated States	..	..	..	4.5	112.0	..	..	..	91.7
	Northern Mariana Islands	..	..	..	12.6	..	..	..	..	..
	Palau	..	..	..	3.4	82.0	..	..	..	..
	Papua New Guinea	1.7	2.4	0.7	0.4	84.0	2.4	0.9	−3.4	39.2
	Samoa	..	..	..	0.5	61.0	..	..	..	65.1
	Solomon Islands	..	11.8	..	0.4	79.0	2.1	..	..	76.6
	Tonga	..	..	..	4.8	47.0	..	..	..	40.0
	Vanuatu	..	22.2	..	4.1	62.0	..	4.3	4.0	71.5
Southeast Asia / WTO Accession		**9.1**	**10.3**	**11.1**	**5.2**	**133.3**	**2.5**	**13.2**	**14.0**	**32.0**
	Cambodia	9.1	10.9	11.1	8.7	145.0	2.5	9.8	10.6	36.4
	Lao PDR	..	8.3	..	1.4	164.0	2.3	12.5	15.6	37.4
	Vietnam	..	11.7	..	5.4	91.0	2.9	17.2	15.8	22.4
Other ASEAN		**4.7**	**3.3**	**3.5**	**2.2**	**73.8**	**2.9**	**6.5**	**6.8**	**24.3**
	Indonesia	4.5	3.0	4.3	2.9	123.0	3.0	7.9	8.3	12.9
	Malaysia	3.8	3.6	2.4	1.4	24.0	3.5	4.2	3.2	18.6
	Myanmar	..	3.8	..	1.8	..	1.9	..	..	45.8
	Philippines	3.8	2.8	2.7	1.4	133.0	2.7	6.0	6.5	34.6
	Thailand	6.6	..	4.5	3.3	15.0	3.3	7.8	9.0	9.5
Others										
	China	5.3	4.7	3.7	3.6	83.0	3.3	21.7	23.0	11.0
	Korea, Democratic People's Republic of	..	..	..	6.0	..	..	..	..	8.6
	Mongolia	4.3	5.2	1.6	1.7	52.0	2.1	..	..	43.7
	Timor-Leste	..	..	..	1.6	168.0	1.7	..	..	26.0
EAP		**4.9**	**7.5**	**3.9**	**3.2**	**86.2**	**2.6**	**8.6**	**8.7**	**38.3**

There is substantial variation among individual countries in terms of their export structure (small island economies relying on tourism or a few key products affect the regional unweighted average). The countries with the highest export product concentration in both 2005 and 2006 were the Federated States of Micronesia (92 out of 100) and the Solomon Islands (77), while those with the most diversified exports included Thailand and the Democratic People's Republic of Korea (both around 9) and China (11). If the smaller islands are not included, the average export concentration index is a low 26.

On average, and relative to most other regions, the EAP countries have increasingly adopted more open trade policies over the last decade. The MFN applied tariff (simple average) for the region declined from 19.5 percent in 1995–99 to 9.6 percent in 2007, and the regional MFN TTRI was 4.9 percent compared to the global average of 15.8 percent. Within the region, the Federated States of Micronesia had the lowest tariff average (4.5 percent in 2006), followed by Mongolia (4.5 percent and 5 percent in 2006 and 2007, respectively). China almost halved its MFN tariff (simple average) from 18.9 percent to 10 percent between 1995–99 and 2007 due to the reforms it undertook in preparation to and following its WTO accession. Its trade-weighted tariff dropped even more, from 16.4 percent to 5 percent, over the same time period. With respect to services, the region's average GATS commitment restrictiveness index was 78 in 2007 (on a scale of 0 to 100, best), several points higher than the next best-scoring region (ECA with 49), the high-income countries, and also the MNA (71) region.

Countries in the region face more favorable market access than the average for the low-income group but worse than the average for middle-income countries. The trade-weighted average of the rest-of-the-world applied tariff (including preferences) for the region is 3.2 percent, slightly higher than for all other regions but SAS. The two countries facing the highest tariffs are Northern Mariana Islands (12.6 percent) and Cambodia (8.7 percent), while the ones enjoying the lowest tariff rates are Papua New Guinea, the Marshall Islands, the Solomon Islands, and Samoa. As for import barriers, the subregion facing the lowest market access barriers is the non–WTO accession ASEAN countries. When factoring in nontariff measures, however, Cambodia stands out as the country facing the most unfavorable export environment. Its MA-OTRI value of 46 percent, which places it at the very bottom of the ranking on this indicator among 125 countries, reflects both a high rest-of-the-world tariff and much higher nontariff barriers and a low value of preferences. MFN-0 duty exports represented 39 percent of regional exports in 2006 (this share exceeded 70 percent for Papua New Guinea, Timor-Leste, and Malaysia, and was under 5 percent for the Marshall Islands, Palau, and Cambodia). A similar share of exports (38 percent) was channeled toward FTA partners, although some of it overlapping with the MFN-0 share of exports. The utilization rate of EU and U.S. preferences is very low at 60 percent, and their value (reflecting the narrow margins between MFN and preferential tariffs) is only equivalent to about 3 percent of total exports to the EU and the United States.

Large exchange rate movements (on a real, effective basis) have been few in 2007, with Papua New Guinea's currency depreciating 4.9 percent and the Philippines' and China's currencies appreciating 9.6 percent and 5 percent, respectively. Even with a depreciating currency, export growth in Papua New Guinea was negative (−3.4 percent) and in the Philippines and China it was positive (6.5 percent and 23 percent, respectively), suggesting that other policy and institutional factors or international market developments were more important in affecting trade performance in this period.

Overall, the EAP region ranks (or scores) near the world average on business environment indicators, but lags behind in governance, including rule of law and control of corruption, and in logistics and other trade facilitation performance. Countries with the highest ranking on most of these dimensions include Malaysia and Thailand, while Myanmar and Timor-Leste score the lowest. Nonetheless, the average export and import per container costs (US$952 and US$1,106, respectively) are lower than in any other region (these figures, unsurprisingly, are highest for land-locked Mongolia, while they are lowest for China and Malaysia). China's logistics performance is better than the regional mean, but its scores on the business and institutional environment indicators are only average. Malaysia and Thailand noticeably outperform the regional average on both the business environment and trade facilitation indicators; yet their recent trade growth is below average. But these two countries were already among the region's economies with the highest trade integration ratio, and both experienced (real effective) exchange rate appreciation beginning in 2005. Among those countries that did not do as well as others in the region on trade outcomes, Timor-Leste and Myanmar are also considerably below the regional averages in trade facilitation and business and institutional environment indicators.

Europe and Central Asia

Overall, ECA has witnessed a sharp improvement in trade integration, as illustrated by the selected indicators presented in table 4.2. The region also exhibits the second highest trade openness ratio (105 percent in 2007, up from 87 percent in 1995–99) in the developing world and the most diversified export structure with an export concentration index of 26, compared with the global average of 38. By now the economies of the ECA regions are among the most integrated with the world economy. The ECA region also scores quite well on trade logistics. Many ECA countries and customs territories are among the top 20 performers in various categories and very few in the bottom 20. The region had the highest average real growth of trade of goods and services (9.5 percent) of any regional group in the early 2000s (11.5 percent). In 2007, the ECA countries sustained their high trade and export growth rates. Over half of the countries with available trade data show double-digit real trade growth rate in 2007 (compared to one-fourth in 1995–99). As a result, its average trade world market share grew by 5.7 percent, evenly distributed between exports and imports.

Table 4.2. ECA Key Trade-Related Indicators

ECA region	Country	TTRI, 2006	Applied tariff trade weighted, 2007	MA-TTRI, 2006	ROW applied tariff trade weighted, 2006	Ease of doing business, 2007	LPI, 2006	Real growth trade, 2007	Real growth export, 2007	Export concentration index, 2006
EU Accession		**5.7**	**2.1**	**3.6**	**2.8**	**41.9**	**3.0**	**13.3**	**11.7**	**13.4**
	Bulgaria	5.9	2.1	2.0	1.3	46.0	2.9	11.9	10.8	15.4
	Hungary	3.8	2.1	4.4	2.6	45.0	3.2	12.0	13.4	13.8
	Latvia	3.8	2.1	4.4	2.9	22.0	3.0	13.8	9.3	10.8
	Lithuania	3.8	2.1	4.4	3.4	26.0	2.8	11.1	10.0	18.9
	Poland	3.8	2.1	4.4	3.7	74.0	3.0	13.5	12.1	8.2
	Romania	14.8	2.1	1.5	0.9	48.0	2.9	13.9	8.0	11.5
	Slovak Republic	3.8	2.1	4.4	5.0	32.0	2.9	16.9	18.0	15.2
Former Yugoslavia		**4.6**	**2.8**	**3.6**	**0.9**	**67.8**	**1.9**	**6.1**	**7.3**	**10.0**
	Bosnia and Herzegovina	..	5.9	..	0.4	105.0	2.5	−0.1	13.7	14.2
	Croatia	4.6	1.5	3.6	1.5	97.0	2.7	6.5	7.1	11.9
	Macedonia, FYR	..	6.9	..	1.2	75.0	2.4	14.0	16.5	17.3
	Montenegro	..	..	..	..	81.0	2.3	..	..	..
	Serbia	..	..	..	..	86.0	2.3	3.7	5.7	10.6
Caucasus and Central Asia		**3.6**	**3.2**	**2.5**	**1.9**	**81.4**	**1.8**	**6.1**	**8.6**	**41.4**
	Armenia	..	3.5	..	0.4	39.0	2.1	14.1	9.1	28.6
	Azerbaijan	5.3	3.6	0.9	0.2	96.0	2.3	11.8	21.1	62.8
	Georgia	..	1.2	..	0.4	18.0	..	9.1	11.8	16.7
	Kazakhstan	2.1	6.1	1.7	0.9	71.0	2.1	9.4	9.3	60.0
	Kyrgyz Republic	3.5	1.3	4.9	2.3	94.0	2.3	4.9	5.0	27.5
	Tajikistan	..	3.6	..	3.2	153.0	1.9	0.6	6.4	76.9
	Turkmenistan	..	..	..	0.6	..	..	..	..	60.5
	Uzbekistan	..	6.7	..	8.0	138.0	2.2	7.0	6.5	26.8
Eastern Europe / WTO Accession		**5.5**	**7.0**	**3.5**	**1.8**	**111.8**	**2.4**	**8.9**	**7.0**	**24.5**
	Belarus	8.4	8.5	1.0	1.2	110.0	2.5	7.3	8.2	31.3
	Moldova	2.9	1.9	6.5	1.6	92.0	2.3	8.9	7.8	17.7
	Russian Federation	6.6	10.4	1.7	1.1	106.0	2.4	11.2	5.6	34.7
	Ukraine	4.2	..	4.8	3.3	139.0	2.6	8.1	6.3	14.3
Others										
	Albania	7.6	6.3	0.8	1.0	136.0	2.1	8.6	8.8	26.7
	Turkey	1.5	1.8	2.1	2.1	57.0	3.2	7.5	8.8	47.2
ECA		**5.1**	**3.8**	**3.1**	**2.1**	**79.4**	**2.5**	**9.4**	**10.0**	**27.2**

Within the region, trade performance is very heterogeneous. There is a marked difference between the policies and performance of the EU accession countries on the one hand and those in South-Eastern Europe and the CIS countries on the other. Most of the countries with fast trade growth are those that have recently joined the EU and have implemented policy reforms in the context of their accession. The Slovak Republic saw the highest trade growth of nearly 17 percent in 2007, its third consecutive year of double-digit growth following its 2004 accession to the EU.[2] However, trade, export, and import growth in the Kyrgyz Republic fell to just 4.8–5 percent in 2007, with export performance up from negative figures in 2005–6 (−5.7 percent) and import growth sharply down from a record 22.6 percent in the same period. Other ECA countries with relatively weak trade growth include Croatia, Bselarus, Ukraine, and Uzbekistan—all countries with poor trade facilitation scores.

ECA countries have the highest average ranking on most trade policy indicators and second highest average ranking on trade restrictiveness indices in the developing world. The region's trade-weighted tariffs in 2006–7 of 5.2 percent (on an MFN basis) or 3.7 percent (including preferences) are very low; only the high-income OECD group has lower tariffs. With a few exceptions, ECA countries on average have tariff structures more in line with those of OECD countries than other developing countries, reflecting the fact that many have recently acceded to the WTO (such as Georgia, the Kyrgyz Republic, Moldova, and Ukraine) and others aspire to accede to the EU. In the case of Georgia, a very high 86 percent of its tariff lines exhibit MFN-0 duties. Moldova has the highest GATS commitment (liberalization) index. However, Turkey and other former CIS and central Asian countries score relatively low on many trade policy indicators. Uzbekistan, Russia, Belarus, and Turkey, for instance, have MFN tariffs over 10 percent on either a simple average or trade-weighted basis.

ECA exports face relatively low market access barriers, with only the Czech Republic, Lithuania, Poland, the Slovak Republic, Tajikistan, Ukraine, and Uzbekistan experiencing a rest-of-the-world weighted average applied tariff of more than 3 percent. Moreover, over 43 percent of the region's exports on average are with FTA partners, more than any other regional group average. Over all subperiods during the last decade, the ECA countries' currencies, on average and on a real, trade-weighted basis, have appreciated in the range of 3.2–5.7 percent annually. Large exchange rate appreciations (on a real, effective basis) have been experienced by Armenia (14.9 percent), Hungary (12.2 percent), the Slovak Republic (10.8 percent), Romania (9 percent), and to smaller extent by Bulgaria and Russia. Despite the exchange rate appreciation, export growth ranged from 18 percent to 5.6 percent, suggesting that other policy and institutional factors, generally good economic performance, or international market developments were more important in affecting trade performance.

In business environment, institutional, and logistics performance, the EU accession countries stand out as the best performers. Most new EU member states are in fact catching up to OECD countries on some measures of logistics

performance, and all rank in the top 50 with the exception of Lithuania (ranked 58th on the LPI). Like other indicators, the institutional indicators reflect the dichotomy between two sets of countries: transition economies in the CIS (for example, Tajikistan, Kazakhstan, and Uzbekistan) are in the bottom two deciles of rankings on both Ease of Doing Business indices (Ukraine also falls in this category) and on trade facilitation. Their LPI scores suggest that customs and border management are among their biggest weaknesses. In logistics, Russia also scores significantly below the average for upper-middle-income countries.

Latin America and the Caribbean

After experiencing a high 9.4 percent real growth of total trade in goods and services in 2005–6, the LAC region's performance slowed down to 7.6 percent in 2007, though it was still well above the level of the previous decade. Export growth also slowed to 6.3 percent from 7.6 percent in the mid-2000s, in line with its historical performance. LAC's average trade share of GDP increased from 86 percent in 1995–99 to 91 percent in 2007, a smaller increase compared to that of most other regions.

As shown in table 4.3, which presents selected indicators for the region, the countries with the highest level of export growth belong to the Central American and Caribbean subregions. Despite doing much worse relative to the rest of the region on all policy and institutional dimensions other than market access, República Bolivariana de Venezuela experienced a rebound in export growth (6 percent) in 2007 from stagnation in the mid-2000s (it also led the LAC countries' import growth with 11 percent). Facing a strong demand (and higher prices) for its copper exports and expanded market access through recent bilateral FTAs, Chile's trade grew at 8.7 percent in 2007, boosting its integration ratio (trade as share of GDP) to 73 percent from 54 percent in the late 1990s. Mexico, well above the regional averages on many dimensions of policy and institutions, except when nontariff measures are considered (see below), experienced a sharp reduction of trade growth in 2007 to 3.9 percent, but its trade growth rate since 1995 (after North American Free Trade Agreement [NAFTA] and a subsequent financial crisis) has been around 10 percent, with export growth being even higher.

The export structure of countries in the region is relatively diversified, with an average export product concentration index of 36 in 2006, in line with the average for middle-income countries. República Bolivariana de Venezuela is the country with the highest product concentration in the region (91 out of 100), due to its dominant oil exports. Brazil and Mexico, despite being major oil and commodity exporters, have diversified and have low levels of export concentration (9 and 15, respectively).

On average, LAC countries exhibit a relatively open trade regime, with protection indicators in line with both global and middle-income countries' averages. These indicators have improved from their historical levels. The region's MFN TTRI of 8 percent is lower than the 10.9 percent level of the

Table 4.3. LAC Key Trade-Related Indicators

LAC region	Country	TTRI, 2006	Applied tariff trade weighted, 2007	MA-TTRI, 2006	ROW applied tariff trade weighted, 2006	Ease of doing business, 2007	LPI, 2006	Real growth trade, 2007	Real growth export, 2007	Export concentrration index, 2006
CARICOM		**13.4**	**5.9**	**3.0**	**1.6**	**60.9**	**2.2**	**5.3**	**5.2**	**33.1**
	Belize	..	12.9	..	3.3	59.0	..	6.8	7.3	38.2
	Dominica	..	7.4	..	4.0	77.0	..	3.3	2.6	39.8
	Grenada	..	10.1	..	1.7	70.0	..	..	..	33.0
	Guyana	13.4	8.0	3.0	2.6	104.0	2.0	5.5	4.0	29.3
	Haiti	..	2.9	..	10.5	148.0	2.2	13.5	12.2	70.5
	Jamaica	..	10.5	..	1.3	63.0	2.2	4.1	2.9	57.6
	St. Kitts and Nevis	..	12.1	..	0.2	64.0	..	..	..	49.9
	St. Lucia	..	5.3	..	0.2	34.0	..	6.5	7.3	34.5
	St. Vincent and the Grenadines	..	8.1	..	0.5	54.0	..	7.2	9.8	33.7
	Suriname	..	12.2	..	0.5	142.0	..	..	..	55.2
MERCOSUR		**7.9**	**5.4**	**2.6**	**2.4**	**106.2**	**2.8**	**8.1**	**5.7**	**34.5**
	Argentina	11.2	5.4	3.0	2.7	109.0	3.0	9.3	6.4	13.0
	Brazil	9.4	7.0	3.8	4.1	122.0	2.8	11.3	5.6	9.1
	Chile	6.0	1.2	1.2	0.9	33.0	3.3	8.7	6.7	39.3
	Paraguay	5.7	4.8	2.3	2.8	103.0	2.6	3.5	3.9	32.0
	Uruguay	6.3	3.2	3.8	4.1	98.0	2.5	7.1	5.7	22.8
	Venezuela, R.B. de	8.7	10.9	1.3	0.2	172.0	2.6	8.6	6.0	91.1
Andean Group		**8.4**	**5.9**	**2.4**	**1.0**	**98.0**	**2.5**	**9.6**	**6.3**	**35.0**
	Bolivia	8.4	4.0	1.5	0.4	140.0	2.3	11.8	5.8	40.3
	Colombia	12.7	8.0	2.3	0.9	66.0	2.5	12.3	6.2	20.7
	Ecuador	5.3	6.5	3.8	1.3	128.0	2.6	5.3	3.4	53.2
	Peru	7.4	5.2	1.9	1.3	58.0	2.8	8.8	9.6	25.6
Central America–Dominican Republic		**6.6**	**6.2**	**5.6**	**4.8**	**96.6**	**2.5**	**7.1**	**7.0**	**23.4**
	Costa Rica	5.3	3.4	2.3	0.7	115.0	2.6	9.7	9.7	22.6
	Dominican Republic	..	..	..	3.6	99.0	2.4	5.0	4.0	16.1
	El Salvador	6.5	4.6	7.2	8.4	69.0	2.7	5.5	3.3	15.0
	Guatemala	7.2	6.4	5.5	4.8	114.0	2.5	6.6	10.0	17.4
	Honduras	7.5	7.9	6.0	6.6	121.0	2.5	4.2	5.3	27.7
	Nicaragua	6.0	5.4	5.6	5.1	93.0	2.2	8.4	8.9	28.8
	Panama	7.0	9.5	6.8	4.2	65.0	2.9	10.4	7.9	36.0
Others										
	Cuba	..	9.1	..	10.8	..	..	..	..	29.8
	Mexico	12.9	2.5	0.6	0.5	44.0	2.9	3.9	2.6	15.3
LAC		**8.2**	**6.9**	**3.4**	**3.0**	**91.6**	**2.6**	**7.5**	**6.3**	**34.4**

early 2000s, but remains higher than in ECA and EAP (4.9 percent and 5 percent, respectively). The LAC region, however, has fewer and weaker services liberalization commitments under the GATS than is the case with respect to middle-income countries and global averages. However, these countries may have liberalized more than is indicated by this measure through their FTAs.

Tariff dispersion is very low, with Chile topping the list given its quite uniform tariff structure. The region's maximum tariff rate of 130 percent is also the lowest when compared to all other regions. However, LAC countries make more frequent use of nontariff barriers than other regions. According to the OTRI, the largest middle-income countries in the LAC region like Brazil and Mexico tend to be the most restrictive when factoring in nontariff measures (20.1 and 18.0, respectively). Given the preferences imports from its neighbors and other distant countries enjoy under NAFTA and a host of other FTAs, it is surprising that Mexico's data would reflect such a high restrictiveness index. It is possible that the import-restricting effect of the nontariff measures considered in the OTRI trumps the import-expanding impact of the extensive preferences the country grants. Across most indicators, Chile stands out as the best performer in the region, with the lowest OTRI of 3 percent and a high ranking in ease of doing business and trade facilitation.[3] Central American and Caribbean countries are the least restrictive, even considering nontariff measures.

Mexico and República Bolivariana de Venezuela face the best market access conditions due to low barriers on their oil exports and, in the case of the former, various free trade agreements. Some of the Central American countries (Guatemala, Nicaragua, Honduras, and El Salvador) had the worst market access through 2006 despite pre–Central American Free Trade Agreement (CAFTA) preferences granted by the United States and other countries, according to the MA-TTRI indicator[4] and experienced lower trade growth than the regional average in 2007. Market access indicators for 2007 are not yet available, but they are expected to be more favorable for these countries, reflecting the deeper preferences granted by the United States under CAFTA. Countries that experienced large exchange rate depreciations (with a – [minus] sign) included the Netherland Antilles (−7.5 percent), Ecuador (−5.8 percent), and Belize (−3.8 percent). Countries experiencing large exchange rate appreciations were Colombia (11.8 percent) and República Bolivariana de Venezuela (10.6 percent). In spite of these appreciations, their export growth rates ranged from 3.4 percent to 6.2 percent, suggesting that other factors (oil in the case of República Bolivariana de Venezuela) boosted these countries' short-term trade performance.

Peru's bilateral trade with the United States will fall under an FTA from January 2009. Colombia stills enjoys preferences under an existing trade agreement with the United States (the Andean Pact Trade and Drug Enforcement Agreement [APTDEA]) through December 2008, but if a recently signed FTA with the United States is not ratified this year by their respective legislatures, its trade and export growth may be negatively affected. Whether the extension of APTDEA, which offers U.S. preferences also to Ecuador and

Bolivia as well, will be extended, is uncertain. However, the value of claimed U.S. (and EU) preferences for these two countries is only a tiny fraction of bilateral exports and is not critical to their export performance. An FTA between Panama and the United States is also awaiting U.S. congressional ratification.

Middle East and North Africa

Trade growth accelerated to an average of 7 percent in 2005–7 in the MNA region, which has historically experienced sluggish trade growth. On average, its trade growth had been 3 percent in the late 1990s (during which time no country or customs territory in the region achieved rates of trade growth of 10 percent or higher) and 5.6 percent in 2000–4. Trade integration, as measured by the share of trade in GDP, has improved consistently and considerably from about 70 percent in the mid- and late 1990s to 98 percent in 2007, as country policies have become more open—both toward the rest of the region and the world.

The countries of the MNA region have had varied performance in trade growth in 2007 (see table 4.4 for selected trade-related performance indicators). Poorly diversified fuel exporters exhibited slower real growth in trade of goods and services, while countries with a more diversified export base (for example, Jordan, Egypt, Morocco, and Tunisia) have experienced impressive growth rates. Tunisia had the fastest real trade growth in 2007 at 17.8 percent (up from 2.8 percent in the mid-2000s) with Morocco coming second at 17.5 percent. Notwithstanding the severe drought that afflicted countries in the Maghreb region, Tunisia, Morocco, and Egypt had excellent export performance, considerably stronger than that of the average MNA and middle-income country averages. This may be due to strong demand from European markets as well as recently initiated reforms to improve the business climate and the competitiveness of the export sector. Djibouti and Jordan (the latter with a relative low trade-weighted tariff, when including preferences) also registered real trade growth of more than 10 percent in 2007. These same countries are the ones with the most improved trade integration ratios between the late 1990s and 2007. Algeria is the only country in the region with a negative real growth in trade (at −4.2 percent in 2007), partly attributed to a fall in its hydrocarbon exports. Its nonoil export sector, moreover, does not appear to have benefited from a sustained annual real exchange depreciation of more than 2 percent since 1995.

The countries with integration ratios higher than the regional average are small and include oil exporters such as Libya and Oman, as expected, but also include nonoil exporters such as Jordan, Lebanon, and Tunisia. Given the importance of oil exports for many countries in the region, the average export concentration index of around 50 percent is one of the highest among developing regions and has hardly changed between the late 1990s and 2007. But this average masks a much higher degree of concentration for hydrocarbon

Table 4.4. MNA Key Trade-Related Indicators

MNA region	Country	TTRI, 2006	Applied tariff trade weighted, 2007	MA-TTRI, 2006	ROW applied tariff trade weighted, 2006	Ease of doing business, 2007	LPI, 2006	Real growth trade, 2007	Real growth export, 2007	Export concentration index, 2006
Euro-Mediterranean		**12.4**	**8.3**	**2.7**	**1.3**	**110.9**	**2.4**	**7.4**	**8.4**	**27.3**
	Algeria	12.7	11.2	0.7	0.5	125.0	2.1	−4.2	−6.3	60.6
	Egypt, Arab Rep. of	5.6	9.3	3.9	2.0	126.0	2.4	8.1	6.7	35.6
	Jordan	9.0	5.6	4.2	2.4	80.0	2.9	10.7	13.3	14.5
	Lebanon	5.5	5.8	4.0	1.3	85.0	2.4	4.9	6.2	12.0
	Morocco	21.4	9.3	2.2	1.1	129.0	2.4	17.5	18.4	15.9
	Syrian Arab Rep.	..	..	..	0.8	137.0	2.1	2.9	0.2	34.0
	Tunisia	20.4	..	1.0	0.6	88.0	2.8	17.8	18.3	18.7
	West Bank and Gaza	..	..	..	..	117.0	..	1.8	10.2	..
Others										
	Djibouti	..	..	..	4.2	146.0	1.9	11.2	2.8	19.1
	Iran, Islamic Rep. of	13.1	19.2	1.6	1.4	135.0	2.5	8.4	1.3	78.2
	Iraq	..	..	..	0.7	141.0	..	..	..	92.4
	Libya	..	..	..	0.1	..	..	..	..	79.9
	Oman	13.2	3.6	1.6	1.0	49.0	2.9	5.8	1.9	74.9
	Yemen, Republic of	..	5.8	..	0.6	113.0	2.3	−0.7	−4.3	85.2
MNA		**12.6**	**8.7**	**2.4**	**1.3**	**113.2**	**2.4**	**7.0**	**5.7**	**47.8**

exporters (more than 75 percent for most of them) and much lower indices for all other countries in the region with a diversified export base.

The MNA region's performance on trade-related policy and institutional dimensions is one of the weakest among all regions, though it is highly differentiated among countries. The MFN applied tariff simple average at 16.2 percent is the highest among all regions. Partly reflecting the importance of preferential trade agreements,[5] the trade-weighted applied tariff (including preferences) is about half that level, at 8.3 percent, but still higher than that of the EAP, ECA, and LAC regions. Agricultural tariffs tend to be much higher in the region relative to nonagricultural products, especially in Egypt, Morocco, and Tunisia. Nonetheless, thanks to continuing reform efforts, which have intensified in the last couple of years, the region has experienced substantial improvement in its trade policy indicators. For instance, while still high compared to other regions, its average Trade (MFN) Tariff Restrictiveness Index dropped from 16.4 percent in the early 2000s to 11.7 percent by 2006. Nontariff measures are particularly restrictive, as the region has the highest average OTRI (including nontariff measures) of 24 percent and second highest nontariff measures frequency ratio of 26 percent among all regions.[6] Exceptions in terms of their comparative levels of overall trade restrictiveness are Jordan, Lebanon, and Saudi Arabia, which are more open than their neighbors. The region fares better in its overall GATS commitment index, at 29, than the average middle-income country and most of the other regions in the developing world (except for the ECA region that scores 51).

Since many of the MNA countries are oil and gas exporters, the region's exports on average faces very few barriers in international markets, as is typical for commodity exporters. In fact, the regional averages for the MA-TTRI (including preferences) at 2.3 percent as well as the rest-of-the-world trade-weighted tariff at 1.3 percent are the lowest among all developing regions. Similarly, the average share of duty-free exports (45.1 percent of total exports) is one of the highest among all regions. As is the case for other indicators, the range is very wide across countries, with high shares for hydrocarbon exporters like Libya (79.5 percent) and very low shares for other countries like Morocco (18.5 percent). The currencies of Bahrain and Saudi Arabia depreciated by 6.9 percent and 3.8 percent, respectively. Nonetheless, their export growth ranged from negative in the case of Bahrain (−4.3 percent) to sluggish for Saudi Arabia (3.2 percent). The Islamic Republic of Iran experienced both stagnation in export performance (1.3 percent) and a large currency appreciation (5.8 percent), probably due to the revenue windfall from higher oil prices.

South Asia

Growth in trade has been the highest among all regions and income groups in the SAS region this decade. Its 2007 average growth rate of 10.8 percent followed a 2005–6 growth of almost 12 percent. This performance was driven by impressive trade and export growth in India (11.5 and 9.7 percent,

respectively) and Bhutan (30.4 and 22.9 percent, respectively). India's trade growth reflects strong export performance in chemicals, pharmaceuticals, iron and steel, and information technology services. However, growth in traditional sectors like textiles and apparel remained stagnant, possibly partly due to the currency's substantial appreciation on a real, trade-weighted basis and competition from others in world markets. Bhutan's trade growth is related to India's increasing demand for its hydroelectricity and cement exports. The slowest trade growth rates were for Pakistan and Sri Lanka (less than 1 percent and 6 percent, respectively). Rising food prices in Pakistan related to developments in international markets, and shortages in domestic supplies led the government to restrict exports of wheat and rice. This had a significant impact on Pakistan's trade performance (see table 4.5 for selected trade-related performance indicators for the region).

Notwithstanding the recent strong performance on trade growth, the region's integration ratio of 73 percent in 2007, though higher than that of the late 1990s ratio of 65 percent, is the lowest among developing regions. Nonetheless, India's integration ratio of 45 percent is high for an economy its size. Nepal, Bhutan, and the Maldives have high export concentration, typical of smaller economies. Trade relations with India are central for these countries. Of the large economies in the region, Bangladesh also exhibits high export concentration, reflecting the dominance of textiles and apparel in its exports.

Despite its recent strong performance, SAS still has the most restrictive trade policy among all regions, as exemplified by its high Trade (MFN) Tariff Restrictiveness Index of 13 percent. The MFN applied tariff (simple average) for the region is 14.4 percent, the second highest after MNA, but down from an average of 26 percent a decade ago. The large regional gap between the applied trade-weighted average tariff rate (11.6 percent, including preferences) and the share of import duties to total merchandise imports (this gap is especially high in some countries like Nepal and Sri Lanka) suggests leakage due to either customs exemptions or other practices. This gap is of particular importance to the region, which obtains a quarter of its central government fiscal revenues from trade taxes. As in all regions, agricultural tariff (applied) averages tend to be much higher relative to nonagricultural products. SAS countries tend to maintain high levels of protection in relation to each other, often more than the level of protection with respect to the rest of the world, and thus intraregional trade is less than 2 percent of GDP, compared to more than 20 percent for East Asia.

On average, SAS has one of the worst business environments across all regions. None of its countries is in the top 50 in the ease of doing business rankings, and only two are in the top 100, Maldives (ranked 60th) being the region's best performer and Pakistan (76th). For some of the smaller countries in the region like Nepal, Bhutan, and Sri Lanka, political instability continues to be a problem, especially for foreign direct investment, new business development, and growth in their important tourism sector.

Policy and institutional performance varies greatly among the countries and customs territories in the region. Sri Lanka is still doing much better than its neighbors on all trade policy indicators and is also less protectionist

Table 4.5. SAS Key Trade-Related Indicators

SAS region	Country	TTRI, 2006	Applied tariff trade weighted, 2007	MA-TTRI, 2006	ROW applied tariff trade weighted, 2006	Ease of doing business, 2007	LPI, 2006	Real growth trade, 2007	Real growth export, 2007	Export concentration index, 2006
	Afghanistan	..	6.2	..	9.4	159.0	1.2	..	..	..
	Bangladesh	14.1	13.2	3.7	4.5	107.0	2.5	9.3	10.5	39.8
	Bhutan	..	14.8	..	0.6	119.0	2.2	30.4	22.9	38.4
	India	15.0	7.8	3.7	4.8	120.0	3.1	11.5	9.7	14.2
	Maldives	..	..	..	3.7	60.0	..	..	..	76.7
	Nepal	16.4	14.6	18.3	2.8	111.0	2.1	6.9	7.5	14.6
	Pakistan	12.3	15.1	7.3	6.8	76.0	2.6	0.9	0.4	23.0
	Sri Lanka	7.2	9.5	3.5	5.3	101.0	2.4	5.9	7.1	22.3
SAS		**13.0**	**11.6**	**7.3**	**4.7**	**106.6**	**2.3**	**10.8**	**9.7**	**32.7**

than in the late 1990s. Its MFN TTRI of 7.2 percent is much lower than its SAS counterparts. It also has a better business environment and trade facilitation than its neighbors. But other indicators suggest that it has increased import tariff barriers this decade and retains one of the weakest commitments under the GATS to services trade liberalization, relative to the regional or lower-middle-income country averages. Sri Lanka has had consistently lower trade growth rates than the regional averages. This may be partly explained by relatively weak performance in its clothing export sector since the lifting of the multi-fiber quotas that shielded this sector from international competition and by continuing political instability in the country. Another factor that may help explain its poorer performance is the relatively low value of preferences it receives from the EU and the United States, amounting to 2.6 percent of its exports to those two countries compared with 5.4 percent for Bangladesh.[7] Its trade policy and market access indicators were not particularly favorable to trade expansion over the period considered, but textiles and apparel exports have grown consistently, supporting high trade growth. No country in the region experienced large exchange rate fluctuations in 2007 on a real, trade-weighted basis.

Sub-Saharan Africa

In 2007, trade volume in the SSA region is estimated to have grown by 6.4 percent on a cross-country average basis, the lowest rate in the developing world and representing a decrease from the 7.9 percent growth exhibited in 2005–6.[8] Export growth was similarly low at 6.1 percent, down from 7.8 percent in 2005–6 and from more than 8 percent in the previous decade (see table 4.6).

Countries and customs territories across the region had very different trade outcomes; 3 out of the 44 countries with available estimates recorded negative real trade growth. For example, in Mauritania, the region's newest oil producer, disappointing export growth (−7.6 percent in 2007, down from 38.3 percent in 2005–6) was largely due to a halving of oil output tied to the installation of new oil exploration and extraction equipment acquired the prior year. Zimbabwe's economic mismanagement and political turbulence were at the root of its negative (officially recorded) trade growth (−2.4 percent). Chad's 2007 negative trade and export growth rate (−0.4 percent and −2.8 percent, respectively) is due to a decline in both oil and nonoil exports, indicating a large decrease from its 2000–4 export levels (56.0 percent) which were, at that time, caused by a jump in oil exports. Trade growth in Nigeria, the region's second largest economy, remained about the same—around 5 percent in both 2005–6 and 2007, with a large slowdown in import growth. Export growth was positive in 2007, albeit very low (2.1 percent), reversing the negative growth experienced in the period 2005–6 (−2.5 percent), which was largely caused by underperformance in the oil export sector.

However, exports in 2007 grew by more than 17 percent in four African countries, with nonpolicy, noninstitutional factors driving their trade and

Table 4.6. SSA Key Trade-Related Indicators

SSA region	Country	TTRI, 2006	Applied tariff trade weighted, 2007	MA-TTRI, 2006	ROW applied tariff trade weighted, 2006	Ease of doing business, 2007	LPI, 2006	Real growth trade, 2007	Real growth export, 2007	Export concentration index, 2006
ECOWAS & UEMOA		**11.1**	**11.7**	**7.4**	**5.1**	**149.5**	**2.3**	**7.0**	**7.2**	**53.5**
	Benin	11.4	16.5	16.3	12.8	151.0	2.4	13.3	19.2	62.3
	Burkina Faso	11.9	9.4	21.5	23.0	161.0	2.2	6.9	6.8	58.0
	Cape Verde	..	12.9	..	0.7	132.0	..	10.8	9.7	47.5
	Cote d'Ivoire	8.0	10.2	4.0	3.0	155.0	2.4	2.9	2.9	32.2
	Gambia, The	..	15.2	..	1.8	131.0	2.5	6.9	7.2	50.6
	Ghana	9.4	11.3	3.1	4.4	87.0	2.2	7.3	4.7	44.1
	Guinea	13.4	..	1.4	0.8	166.0	2.7	4.4	4.7	65.7
	Guinea-Bissau	..	10.9	..	3.2	176.0	2.3	4.7	5.1	74.9
	Liberia	..	..	..	0.6	170.0	2.3	..	..	..
	Mali	12.2	8.4	11.5	15.3	158.0	2.3	5.1	6.4	73.9
	Niger	11.6	11.2	0.9	2.9	169.0	2.0	5.7	5.9	47.2
	Nigeria	11.4	11.0	0.4	0.1	108.0	2.4	5.0	2.1	85.1
	Senegal	10.2	9.6	6.5	2.2	162.0	2.4	4.8	4.1	24.7
	Sierra Leone	..	..	..	0.9	160.0	2.0	14.3	17.1	53.9
	Togo	11.0	13.6	8.0	4.5	156.0	2.2	5.3	5.2	28.9
CEMAC		**17.5**	**12.8**	**1.5**	**0.7**	**164.7**	**2.2**	**4.2**	**2.4**	**71.8**
	Cameroon	14.6	12.5	2.8	2.1	154.0	2.5	5.1	3.9	51.2
	Central African Republic	21.8	10.3	0.8	0.3	177.0	..	5.7	5.5	46.9
	Chad	..	10.9	..	0.6	173.0	2.0	−0.4	−2.8	..
	Congo, Rep.	..	16.1	..	0.7	175.0	..	0.7	−3.1	86.9
	Equatorial Guinea	..	12.7	..	0.1	165.0	..	6.3	6.6	90.4
	Gabon	16.2	14.3	1.0	0.3	144.0	2.1	7.5	4.1	83.7
East African Community		**12.9**	**9.6**	**6.7**	**2.1**	**128.8**	**2.2**	**7.8**	**6.3**	**38.8**
	Burundi	12.4	11.2	5.0	1.6	174.0	2.3	7.6	6.3	60.7
	Kenya	8.1	9.9	5.1	2.6	72.0	2.5	6.6	6.1	18.8
	Rwanda	20.4	..	10.5	1.1	150.0	1.8	10.1	6.9	54.4
	Tanzania	9.0	8.1	6.0	2.4	130.0	2.1	6.6	6.1	35.3
	Uganda	14.7	8.9	7.0	3.0	118.0	2.5	8.3	5.9	25.1

Other COMESA	**12.6**	**12.1**	**5.4**	**2.1**	**130.8**	**2.4**	**7.8**	**9.2**	**49.3**
Angola	..	6.4	..	0.3	167.0	2.5	18.4	21.9	95.5
Comoros	..	..	..	0.8	147.0	2.5	3.9	3.1	47.5
Congo, Dem. Rep. of	..	10.8	..	0.1	178.0	..	10.1	9.1	38.4
Eritrea	5.8	..	5.3	3.5	171.0	2.2	3.9	3.1	18.0
Ethiopia	13.7	12.6	1.3	1.9	102.0	2.3	6.3	5.9	43.2
Madagascar	12.0	7.9	2.9	3.2	149.0	2.2	6.1	4.4	19.6
Malawi	30.4	10.3	20.2	6.1	127.0	2.4	5.9	6.1	59.9
Mauritius	2.0	1.7	2.6	2.1	27.0	2.1	4.2	4.6	28.3
Seychelles	..	32.9	..	0.5	90.0	..	7.0	7.1	62.8
Sudan	16.1	..	1.5	1.2	143.0	2.7	25.2	38.7	87.2
Zambia	8.5	..	3.7	2.5	116.0	2.4	5.1	4.7	68.4
Zimbabwe	..	14.3	..	2.7	152.0	2.3	−2.4	2.1	22.3
SACU	**8.3**	**8.8**	**1.2**	**4.0**	**69.6**	**2.7**	**4.9**	**3.7**	**41.2**
Botswana	9.0	9.4	0.1	0.1	51.0	..	3.4	3.7	72.5
Lesotho	..	14.3	..	9.7	124.0	2.3	2.3	1.9	46.6
Namibia	10.1	7.9	0.5	2.1	43.0	2.2	11.1	9.9	30.0
South Africa	5.7	4.9	3.0	1.9	35.0	3.5	7.2	4.1	15.6
Swaziland	..	7.5	..	6.4	95.0	..	0.4	−1.2	41.5
Others									
Mauritania	7.8	10.9	1.6	0.6	157.0	2.6	−7.6	−16.9	74.0
Mayotte	..	1.9	..	1.7	..	..	..	..	..
Mozambique	6.1	7.1	7.0	0.9	134.0	2.3	8.1	7.4	57.4
São Tomé and Principe	..	..	..	0.2	163.0	2.9	..	..	86.9
Somalia	..	..	..	6.0	..	2.2	..	..	..
SSA	**11.8**	**11.0**	**5.4**	**3.0**	**135.8**	**2.3**	**6.4**	**6.1**	**52.7**

export growth. For instance, two countries, Sudan and Angola (ranked 2nd and 4th out of 160 countries on trade growth), are oil-producing countries that benefited from increased oil prices and exports. They achieved their highest export growth rates in almost 35 years (38.7 and 21.9 percent, respectively), with correspondingly huge increases in their foreign exchange earnings, allowing them to finance rapid real import growth. Benin was the region's third best exporter, with exports growing by 19.2 percent (−2.0 percent in 2005–6) and imports by 9.9 percent (4.9 percent in 2005–6). Benin's large jump in export and doubling of import growth (surprising for a low-income cotton producer) are largely due to increased re-exports to Nigeria, whose capacity to import (whether through official or unofficial channels) benefited from higher export earnings related to booming oil prices. Sierra Leone also registered a high export growth of 17.1 percent in 2007, largely as a result of the lifting of the diamond export ban following the civil war (diamonds account for nearly half of its total exports). All these countries had good trade performances related to international market developments or developments in partner countries affecting major exports, despite having poor scores on trade policy and institutional areas.

SSA's export bundle is the least diversified among all developing regions (with a regional average of 52.7 percent in 2006). The cumulative average country share of the top five export products is around 80 percent, also the highest among developing countries. Recently, some countries, including Ghana, Mozambique, Senegal, Tanzania, and Uganda, have slowly started to diversify their economies and exports. South Africa remains the most diversified economy in Africa.

On average, countries in the SSA region consistently score or rank relatively poorly on most trade-related policy categories compared to other regions. SSA is the second most trade-restrictive region, after SAS, with an applied tariff-weighted average of 11 percent (albeit improved compared to 15 percent in 1995–99). Comoros, Sudan, Zimbabwe, and the Seychelles are the most closed economies, having the highest restrictiveness indices and MFN tariffs (whether on a simple average or trade-weighted basis). SSA countries have the fewest and weakest services trade (liberalization) commitments in the GATS. The region on average also displays the worst rankings in business environment, governance, logistics, and other trade facilitation indicators.

Depending on the products they export, countries in the region face very different market access. For example, countries like Botswana, Sudan, and the Central African Republic face very low tariffs for their exports, but Burkina Faso, Benin, and Mali (all cotton exporters) face much higher tariffs for their products. The region does not score high relative to the other regions on market access (even taking preferences into account), despite the fact that most of the countries are low income.

Movements in real effective exchange rates do not seem to have had much impact on export growth rates, at least in the short run. A number of countries in the region experienced large real effective exchange rate depreciations in 2007. These included Zambia (13.9 percent, although this came after two years

of even larger appreciations), Malawi (11.2 percent), South Africa (8.7 percent), and Burundi (6 percent). Countries that experienced large real appreciations included the Gambia (10.7 percent) and two oil producers, Equatorial Guinea (7.1 percent) and Gabon (5 percent). All these countries' export growth rates were positive, ranging from 4.1 percent to 7.2 percent, and at or below the global average.

Among the countries with the highest scores or rankings in policy indicators, Mauritius clearly outperforms the rest of the region, surpassing South Africa in most dimensions but logistics. It has also liberalized some services sectors, including telecommunications. It faces a relatively favorable market access environment (2.1 percent being the rest-of-the-world trade-weighted applied tariff compared to the SSA average of 3 percent) and has one the least-protected economies in the world: it ranks 6th of 125 countries on the Trade (MFN) Tariff Restrictiveness Index, with a trade-weighted applied tariff average of 1.7 percent, compared to the SSA average of 11 percent. Nevertheless, the country's trade growth was only 4.3 percent in 2007, lower than 6.9 percent in 2005–6.

South Africa has the region's second most open economy according to the MFN TTRI and the applied tariff-weighted average (5.7 percent and 4.9 percent, respectively) and is also the second best performing on most institutional and trade facilitation dimensions, with a very good business environment and logistics. Its recent trade growth rate, however, also slowed down, from a solid 10 percent in 2005–6 to 7.2 percent in 2007.

Other countries with relatively open services trade are Senegal, Ghana, Kenya, and Nigeria. Their liberalization commitments under the GATS, however, remain few and weak. Among the top 10 countries in the region ranked for Ease of Doing Business, Kenya and Ghana (72nd and 87th, respectively, out of 178, worst) were only in the middle of the group on both tariff policy and in trade and export growth.

APPENDIX A

Definition of Selected Indicators

Trade (MFN) Tariff Restrictiveness Index (MFN TTRI)	This index summarizes the trade restrictiveness of the MFN tariff schedule of a country. It is equivalent to the uniform tariff that would maintain the country's aggregate import volume at its current level (given heterogeneous tariffs). Expressed in percent (as if it were a tariff rate). *Source:* As calculated by the World Bank Development Economics Research Group (DECRG) using UNCTAD TRAINS and the United Nations Commodity Trade (COMTRADE) Statistics Database through WITS. See paper by Kee, Nicita, and Olarreaga (2008).
Trade Tariff Restrictiveness Index (TTRI)	This indicator is calculated as the MFN TTRI described above, but including preferential rates. Expressed in percent (as if it were a tariff rate). *Source:* Same as above.
Overall Tariff Restrictiveness Index (OTRI)	This indicator is calculated as the TTRI described above, but including nontariff measures. Expressed in percent (as if it were a tariff rate). *Source:* Same as above.
MFN applied tariff	This indicator is calculated as the average of the MFN applied (as opposed to bound) tariff rates available at the Harmonized Schedule (HS) 6-digit product level in a country's customs schedule. Reported as a simple average (includes lines where there are no trade flows), a trade weighted average (weighted by

	trade import values at 6-digit level), dispersion (coefficient of variation), and maximum rate. These are all reported disaggregated for agricultural goods and nonagricultural goods. *Source:* As calculated by the World Bank Institute WTI 2008 team using the UNCTAD TRAINS tariff database and the UN COMTRADE database through WITS until 2004. For 2005–7, ITC calculated the indicator based on their tariff and trade flow databases, including at the tariff line level when available information exists. For the trade weighted average reported trade data at the HS 6-digit level have been used in most cases, but, for some countries mirror data from trading partners have been used (2006 or latest trade flows have been used for in most cases, the estimation of the 2007 indicator).
Applied tariff	This indicator is calculated in the same way as the MFN applied tariff, but including preferential rates. *Source:* Same as above.
MFN duty-free imports/exports	This indicator reflects the value of goods imported/exported duty free (based on the country's HS tariff structure) or under MFN-0 as a percentage share of total merchandise imports/exports. In cases where tariff lines include both duty free and non–duty free rates at the HS 8-digit level, exports are treated as non–duty free. *Sources:* As calculated by the World Bank Institute WTI 2008 team using UNCTAD TRAINS and the UN COMTRADE database through WITS until 2004. For a number of countries WITS uses mirror data from COMTRADE for estimating MFN-0 imports/exports. From 2005–07 we used the ITC database. ITC linked tariffs and trade at the tariff line level when data were available for the same year, but when trade data were not available at the tariff line level, ITC used COMTRADE data.
Tariff escalation ratios	These indicators are calculated as (i) the percentage point difference between the applied tariffs for finished (or fully processed) goods and the applied tariffs for raw materials (or primary products) and as (ii) the percentage change between the applied tariffs for finished (or fully processed) goods and the applied tariffs for raw materials (or primary products).

	Sources: As calculated by the World Bank Institute WTI 2008 team using UNCTAD TRAINS and the UN COMTRADE database through WITS until 2004. From 2005–07 we used the ITC database, using WTO classification of tariff lines for primary, intermediate, and finished product categories.
Import duties as percent of imports	This indicator reflects a country's customs and other import duties as a percentage of total imports, evaluated in local national currency. *Sources:* World Bank WDI database and International Monetary Fund (IMF) Government Finance Statistics database.
Specific tariffs frequency ratio (percent of total tariff lines)	This indicator reflects the number of HS 6-digit level tariff lines with at least one specific tariff as a percentage share of the total number of HS tariff lines. A specific tariff is a duty based on unit quantity and not linked to the product's unit price. *Source:* As calculated by the World Bank Institute WTI 2008 team using UNCTAD TRAINS and the UN COMTRADE database through WITS until 2004. From 2005–7 we used the ITC database.
Nontariff measures frequency ratio (percent)	This indicator reflects the simple average of import coverage in the percentage of products within a category that is affected by at least one nontariff measure at the HS 6-digit level. The nontariff barriers covered are only those that include various price control measures, variable charges, anti-dumping and countervailing actions, quantitative restrictions, nonautomatic licensing, or other prohibitions. Latest year for which information is available is 2001. *Source:* As calculated by the World Bank Institute WTI 2008 team using UNCTAD TRAINS and the UN COMTRADE database through WITS until 2004. From 2005–07 we used the ITC database.
Overall GATS commitments index	This indicator measures the extent of GATS commitments for all 155 services subsectors and in the four modes as classified by the GATS. Each entry in the country's schedule is assigned scores based on its relative restrictiveness, using a criteria set out by Bernard Hoekman's methodology. Scores range from 0 (unbound or no commitments) to 100 (completely liberalized), with an intermediate value of 50 for partial commitments. Simple averages of the subsectoral scores were

	used to generate aggregate sectoral scores (for the 12 main services sectors as classified by the GATS), modes scores, and market access and national treatment scores. The overall GATS commitment index is a simple average of the sectoral indices. *Source:* GATS commitment schedules in the WTO, as scored by the World Bank Institute WTI 2008 team. Scoring scale and criteria and sectoral weights follow Bernard Hoekman, *Tentative First Steps: An Assessment of the Uruguay Round Agreement on Services*, Finance and Private Sector Development Team— Technical Department, ECA/MNA Regions, The World Bank. Presented at a World Bank Conference, The Uruguay Round and the Developing Economies, January 26–27, 1995.
ITU Competition Index in Telecom Sector	This index reflects the level of competition in a country's telecommunications sector for international long distance calls, mobile phones, and Internet service providers. Based on the most recent industry competition level (monopoly, partial competition, or competition), each subsector is assigned a value of 0 to 2 (with the higher value representing greater competition in the market). The index is then calculated as the simple average of the three subsector indicator values. *Source:* 2006 ITU World Telecom Regulatory database.
Market Access Trade Tariff Restrictiveness Index (MA-TTRI)	This index summarizes the trade restrictiveness of the tariff schedules (including preferences) of a country's trading partners. It is equivalent to the uniform tariff that would maintain a country's aggregate export volume at its current level (given heterogeneous tariffs), including preferential rates. Expressed in percent (as if it were a tariff rate). *Source:* As calculated by the World Bank's Development Economics Research Group (DECRG) using UNCTAD TRAINS and the United Nations Commodity Trade (COMTRADE) Statistics Database through WITS. See paper by Kee, Nicita, and Olarreaga (2008).
Market Access Overall Tariff Restrictiveness Index (MA-OTRI)	This indicator is calculated as the MA-TTRI described above, but including nontariff measures. Expressed in percent (as if it were a tariff rate). *Source:* Same as above.

Rest-of-the-world applied tariff	This indicator is calculated as the average of the applied tariff rates imposed by a country's export partners, including preferences, available at the HS 6-digit product level in a country's customs schedule. Reported as simple and trade weighted averages. *Source:* As calculated by the World Bank Institute WTI 2008 team using UNCTAD TRAINS and the UN COMTRADE database through WITS until 2004. From 2005–07 we used the ITC database. ITC linked tariffs and trade at the tariff line level when data were available for the same year, but when trade data were not available at the tariff line level, ITC used COMTRADE data. For the trade weighted average, reported trade data at the HS 6-digit level have been used in most cases, but, for some countries, mirror data from trading partners have been used. The online database for the WTI 2008 Web site includes also ITC estimates (as of March 13) for 2007 (2006 or latest trade flows have been used for the estimation of the 2007 indicator).
Share of trade with regional trade agreement (RTA) partners (percent of total exports)	This indicator is the ratio of the total value of merchandise exports/imports with RTA partners (including but not limited to free trade and customs union partners) to the total value of exports/imports. Expressed as a percentage of total merchandise exports/imports. This indicator was calculated according to the year each country accessed to the RTA. *Sources:* As calculated by the World Bank Institute's WTI 2008 team. WTO Regional Trade Agreements Division, WTO Web site, and COMTRADE.
Preferences utilization rate (percent, actual/ potential value)	The ratio between the value of actually utilized U.S. or EU preferences and the value of potential U.S. and EU preferences, expressed in percentage terms. *Sources:* As calculated by the World Bank Institute's WTI 2008 team, based on USITC Trade DataWeb and USITC Tariff Database Tables for U.S. imports; UNCTAD TRAINS and Comext for EU imports.
Preferences, potential value (percent of exports)	This is calculated by taking the difference between the MFN duty and the preferential duty (if applicable), regardless whether or not

	trade occurred at that preferential rate, multiplying by eligible exports for each tariff line at the HS 8-digit level, then summing across all lines. Expressed as a share of the value of the country's bilateral exports to the U.S. and E.U. *Sources:* Same as above.
Preferences, actual value (percent of exports)	The value of actually utilized US or EU preferences, expressed as a share of the value of the country's exports to the US and EU. It is equivalent to the following: taking the difference between the MFN duty rates of those goods that entered under preferential rates (as if they entered under MFN rates), multiplied by the total value of the corresponding exports claiming preferences, and the preferential duties that were actually paid. Expressed as a percentage of total bilateral exports. It represents the actual savings in terms of duties paid with respect to the MFN duties that would otherwise be collected. It is also reported disaggregated for E.U. only and U.S. only exports for each country. *Sources:* Same as above.
Real effective exchange Rate change (percent, += appreciation)	The real effective exchange rates are calculated using geometric weighted averages of the seasonally adjusted consumer price index and the exchange rate index, U.S. dollar per national currency, period average. It is calculated for those countries having consumer prices data. Countries with high inflation rates are not seasonally adjusted. *Source:* Compiled by the IMF Information Notice System.
Ease of doing business rank (1–178)	The ease of doing business rank represents a country's overall business environment based on ten indicators, three of which are reported here: starting a business, enforcing contracts, and closing a business, each ranked out of 178 countries. *Source:* World Bank Doing Business, various years.
Logistics Performance Index (1 to 5)	The LPI reflects the overall perception of a country's seven key logistics based on over 1,000 surveys of logistic information. Logistics

	categories include efficiency of customs and other border procedures, quality of transport and information technology infrastructures, international and domestic transportation costs, ease of shipments and logistics competence, and tracking ability and timeliness of shipments. The value of the index ranges from 1 to 5, with a higher score representing a better performance. *Source:* Global Facilitation Partnership for Transportation and Trade.
Real growth in total trade of goods and services (in percent)	It is calculated as the average annual growth rate of the total exports and imports in goods and services at constant 2000 U.S. dollars. This indicator shows the trade expansion of a country over the period. Also reported are the disaggregated percentages for exports and imports. *Source:* World Bank Development Economics and Data Group (DECDG), as reflected also in the Development Data Platform through 2006. Development Economics and Prospects Group (DECPG) estimates (as of December 2007) were used for 2007. Also, missing year values in the DECDG historical series were interpolated using DECPG estimates.
Trade integration, trade share in GDP (in percent)	It is the sum of exports and imports in goods and services divided by the value of GDP in current U.S. dollars. *Source:* Same as above.
Import/export product concentration index (0 to 100, max.)	This index, also called the Herfindahl-Hirschmann index, is calculated as $H_{ij} = 100 * \left[\frac{\sqrt{\sum_i \left(\frac{X_{ij}}{X_j} \right)^2} - \sqrt{\frac{1}{n}}}{1 - \sqrt{\frac{1}{n}}} \right]$ where X_{ij} is the country j's exports of product i (at SITC 3-digit level), X_j is country j's total exports, and n is the total number of 3-digit products. Note that this type of concentration indicator tends to be quite vulnerable to cyclical

fluctuations in relative prices, in a way that commodity price rises make commodity exporters look more concentrated.

Source: UNCTAD Statistical Office, also reported in the UNCTAD *Handbook of Statistics*, various issues.

Import/export market concentration index (0 to 100, max.)

This index, also called the Herfindahl-Hirschmann index, is calculated as

$$H_{ij} = 100 * \left[\sqrt{\sum_{j} \left(\frac{X_{ij}}{X_i} \right)^2} \right]$$

where X_{ij} is the country *i*'s exports to country *j* (at SITC 3-digit level) and X_i is country *i*'s total exports to all trading partners. Note that this type of concentration indicator tends to be quite vulnerable to cyclical fluctuations in relative prices, in a way that commodity price rises make commodity exporters look more concentrated.

Source: As calculated by the World Bank Institute's WTI 2008 team using COMTRADE database.

APPENDIX B

Background to the Selection of Trade-Related Indicators

Trade policy can take many different forms: tariffs, quotas, nonautomatic licensing, antidumping duties, countervailing duties, tariff-quotas, subsidies, and so forth. As widely shown in the literature, reforms related to traditional trade policy (border controls on trade in goods and regulations of services) can help accelerate integration into the world economy and strengthen an effective growth strategy. However, they cannot ensure its success (World Bank 2006b, chapter 2). Other elements that may constrain trade (and by extension, growth) need to be highlighted, including (i) a country's access to the global economy, (ii) the overall business and institutional environment, and (iii) trade facilitation (mainly for customs and other logistics, but also selected infrastructure and skills).

Access to global markets for the goods produced by the world's poor, such as agricultural products and textiles and apparel, is reflected in the database. The problems of escalating tariffs, tariff peaks, and quota arrangements that systematically limit market access and skew incentives against adding value by poor countries are also examined to the extent allowed by data availability.

Including the behind-the-border reform agenda implies that the set of relevant variables affecting trade outcomes is potentially very large. For example, it may be argued that any policy that affects how businesses operate domestically may also affect whether, and how much, they export and import. Some of these factors may have a disproportionate effect on trading firms versus nontrading ones. Foreign firms may face higher transactions costs in a poor governance environment than local firms because the latter may be able to use informal methods to do business. These differential effects, however, are often hard to quantify. The indicators chosen for the WTI are wider than what would normally be thought of as pure trade policy, but include as much as possible those with close links to international trade, as highlighted in the literature. While a full literature survey is not provided here, some empirical work supporting the choice of certain indicators is mentioned below. Regulations on business and commerce and the general state of governance are believed to play a significant role in hampering or promoting trade (Bolaky and Freund 2004; de Groot and others 2004; Anderson and Marcouillier 2002; Dollar and

Kraay 2003; Levchenko 2004; Souva and Rowan 2005; Islam and Reshef 2006).[1] The quality and performance of logistics services also have a significant effect on trade competitiveness (Hausman, Lee, and Subramanian 2005; Limão and Venables 2001; Subramanian and Arnold 2001).[2]

Qualitative, subjective, or perception indicators from non-Bank surveys have been excluded from this project due to the difficulty in assessing their methodology and validity. Also, the Bank's qualitative trade ratings that originate from the Bank country economists and are part of the annual Country Policy and Institutional Assessment exercise have been excluded for similar reasons as well as due to the existing publication restrictions of such indicators for non-IDA countries.

Within each broad category of indicators, a representative indicator has been identified to highlight the salient features of policy/outcome evolution, based on a qualitative judgment by the project's team about its methodological robustness, relevance to policy makers, and theoretical linkages among groups and within groups. The choice of highlighting representative indicators rather than constructing composite indicators had been originally made mainly for purposes of transparency and simplicity. Nonetheless, for all categories, the preselected representative indicators turned out to be highly correlated with composite category indexes, which the project team estimated on a previous dataset (updated through June 2007) following the standard principal component analysis (PCA) methodology.[3]

Another notable feature of these indicators is that the trade policy, business, and trade facilitation indicators appear significantly correlated across these same groups. This is not surprising, as it would be expected that a country committed to trade integration in the global economy would have a liberal trade policy regime, a favorable business and institutional environment, and good trade facilitation. Nonetheless, the only mild degree of such correlations is also reassuring, as it provides evidence that each group offers valuable information not fully embedded elsewhere.

APPENDIX C

Trade Indicators by Other Institutions

A number of other institutions also produce useful trade-related indicators, which are easily accessible directly or via hyperlinks on the WTI Website.

The Geneva-based *International Trade Centre* (ITC) offers a series of analytical tools (Trade Map, Market Access Map, Investment Map, Trade Competitiveness Map, and Product Map) designed to facilitate strategic market research and to monitor national and sectoral trade performance. Among those tools, the Trade Competitiveness Map and the Market Access Map present trade and market access profiles for most countries based on statistics that benchmark national trade performance. ITC undertook primary data collection and verification, but also used other sources such as the World Trade Organization and U.N. COMTRADE. For each country, CountryMap offers a Trade Performance Index (TPI) which provides a general profile and ranking in 14 different sectors. The TPI consists of 24 static and dynamic sector-level performance indicators that are given (ad hoc) weights. CountryMap also provides separate National Export Performance and National Import Profiles. These profiles provide an overview of the export/import performance of countries by looking at the composition of their trade portfolio in terms of the dynamics of international demand and sector diversification. Additionally, CountryMap includes an econometric model (TradeSim) based on a large variety of variables that can help in the identification of sectors and markets with significant (untapped) trade potential.

Between 1997 and the mid-2000s, the *International Monetary Fund (IMF)* also computed a Trade Restrictiveness Index annually; this is a composite of tariff and nontariff restrictiveness indexes from information collected during Article IV staff visits. This indicator has been only utilized in bilateral policy review discussions by the IMF with its members and is not available for public disclosure.

The *Organisation for Economic Co-operation and Development* (OECD) compiles International Trade and Competitiveness Indicators (ITCI) for its member countries using data reported by those members. The ITCI table contains cross-country comparisons of various indicators of international trade and competitiveness from 1975 onwards. The trade indicators include the

usual exports, export price, imports, and import price as well as export market growth and performance. Other competitiveness indicators include unit labor cost as well as indices of relative unit labor cost, relative export prices, and relative consumer prices.

In the *Economic Report 2004* on Africa, the *United Nations Economic Commission for Africa (ECA)* conducted a benchmarking exercise and constructed the Trade Competitiveness Index (TCI) for 30 African countries and 8 non-African comparator countries. The TCI consists of three components: (i) a Trade-Enabling Environment Index, reflecting the overall economic and political environment's conduciveness to trade; (ii) a Productive Resource Index, measuring the availability of direct inputs to production, such as land and labor; and (iii) an Infrastructure Index, measuring the availability of indirect inputs that enable the movement of goods and services (for example, transport networks, energy infrastructure, and communication networks). A total of 31 indicators (from various sources, but primarily WDI) are used to construct the three sub-indices, which in turn receive equal weights in calculating the overall TCI.

The *World Trade Organization (WTO)* offers compact country trade and tariff profiles on its Web site and in two publications (*Trade Profiles 2007* and *Tariff Profiles 2006*) that provide a good deal of information on (i) a country's structural trade flows through 2005; (ii) basic and sectoral MFN tariffs imposed on imports and faced abroad by its exporters through 2006; and (iii) a number of patents, trademarks, and trade-related disputes, among other trade indicators. These profiles are complemented with general macroeconomic indicators. Data are currently provided for 175 economies. These profiles reflect a joint effort in recent years by the WTO, UNCTAD, and the ITC to construct an agreed and updated trade database. The WTO does not, however, attempt to rank or compare countries.

In 2005, the *United Nations Conference on Trade and Development (UNCTAD)* produced and at end-2007 updated a composite Trade and Development Index (TDI) for 123 countries, applying principal component analysis to various indicators of economic performance and social development, including a human development index, health expenditures per capita, domestic credit to the private sector, access to improved water, gender development statistics, and a few limited trade policy and trade outcome indicators. Its aim is to provide "a quantitative indication and an analytical framework to identify how well trade and development policies allow developing countries to maximize benefits and minimize costs from trade liberalization and globalization" and to point to "policy options to overcome structural, institutional, or financial bottlenecks, as well as shortcomings in trade policy and development strategies." The TDI provides a ranking of the trade and development performance of developing and developed countries, as well as countries with economies in transition. The 2007 update shows the United States holding the top position, followed by Germany, Denmark, and the United Kingdom.

The *Economist Intelligence Unit (EIU)* has extensive trade and commerce-related values and analyses, including country summaries of regulations

and some basic aggregate trade indicators. Their business risk indicators are extensive and widely used, but they are also subjective and proprietary. In any case, they cover similar ground as the Bank's Doing Business and WBI's Governance Indicators (the latter actually incorporates the relevant EIU governance indicators).

The *WTI database* complements and extends the ITC's and WTO's global approaches in a number of directions. In particular, the WTI database contains country indicators at a more aggregate level better suited to country policy makers and analysts than those available through the ITC, whose main clients are business people. It includes more of the relevant aggregate trade policy and behind-the-border indicators than those on the WTO trade and tariff country profiles, while also incorporating some of the indicators reported by the WTO. And finally, its focus is more on trade-related aspects of policy and outcomes than the UNCTAD TDI, which is very broad and assesses overall development policies.

The *WTI indicators* are based mostly on UNCTAD's TRAINS database (for tariffs), ITC's trade and market access databases, the U.N.'s COMTRADE (for disaggregated trade flows), and various World Bank sources (WDI database, Ease of Doing Business rankings, Worldwide Governance Indicators, and the World Bank's Development Economics Prospects Group (DECPG) estimates for the most recent year of aggregate trade flows). Indicators from external organizations (non-Bank generated or at least verified) that are included in this dataset are the WTO's indicators related to regional agreements, binding coverage, disputes, and contingency protection measures; an ITU indicator of the maximum allowed foreign participation in telecom services; UNCTAD's Liner Shipping Connectivity index; the USITC's indicators of the depth of multilateral services commitments for the banking sector of 65 countries (and under preparation for the insurance and telecom sectors);[1] the USITC indicators for total freight charges and for air cargo freight rates; and DHL's air freight costs from the United States.

In early 2008, further consultations have been conducted with relevant institutions to ensure that the WTI database uses the best and most accurate information (and sources) and that it has real added value. The project team will continue to monitor the indicators and methodologies used by other institutions for any further insights and, if warranted, for incorporating their indicators or expanding their coverage more globally in the case of regional institutions.

APPENDIX D

Trade At-A-Glance Tables

- **Low-Income Countries**
- **Lower-Middle-Income Countries**
- **Upper-Middle-Income Countries**
- **High-Income Non-OECD Countries**
- **High-Income OECD Countries**

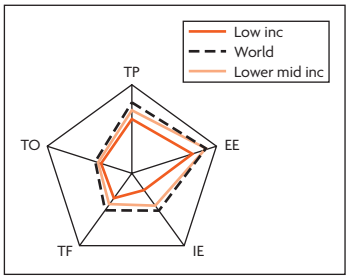
Low-Income Countries: Trade At-A-Glance

Apr-08

2007 GDP (millions)	2007 GDP per capita	2007 Share in World Trade	2007 Trade per capita	Membership GATT	Membership WTO	No. of RTAs/EIAs Goods	No. of RTAs/EIAs Services
$44,018	$574	0.08%	$417	—	—	2.1	0.0

TRADE PERFORMANCE ‡

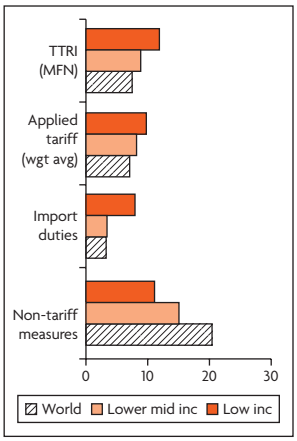
	Ranking	Decile
TRADE POLICY (TP) (out of 125)	**92.6**	**8.0**
EXTERNAL ENVIRONMENT (EE) (out of 125)	**75.8**	**7.0**
INSTITUTIONAL ENVIRONMENT (IE) (out of 178)	**136.9**	**8.0**
TRADE FACILITATION (TF) (out of 151)	**107.9**	**8.0**
TRADE OUTCOME (TO) (out of 160)	**91.5**	**6.0**

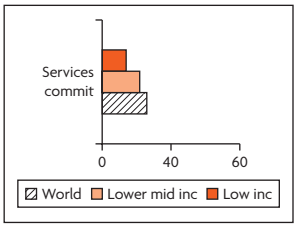


‡ Rankings are based on the "representative" indicators (in bold) in each group below for the latest year

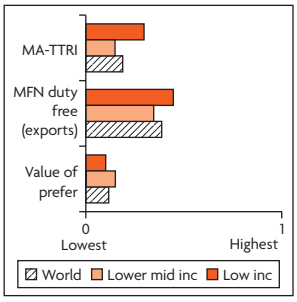
Outer bound represents best value in latest year

TRADE POLICY (TP) *	1995–99^	2000–04^	2005–06^	Latest^
Trade Tariff Restrictiveness Index (MFN applied tariffs)	—	**12.3**	**11.4**	**11.7**
TTRI (applied tariffs including preferences)	—	—	10.9	10.9
Overall TRI (OTRI, applied tariffs incl. prefs.+NTMs)	—	—	22.0	22.0
Other trade policy indicators				
MFN applied tariff - simple avg (%)	22.3	14.2	12.6	12.6
Dispersion (coefficient of variation)	0.9	0.8	0.8	0.9
Maximum rate	238.9	92.0	128.4	167.8
Agriculture - simple avg (%)	26.7	18.1	16.0	16.0
Nonagriculture - simple avg (%)	21.7	13.6	12.1	12.1
MFN applied tariff - trade weighted avg (%)	19.2	12.2	11.4	11.3
MFN zero-duty imports (% in total imports)	14.8	14.5	24.4	23.8
Applied tariff (incl. prefs.) - trade weighted avg (%)	18.8	11.8	9.7	9.6
Agriculture	23.6	15.2	13.1	12.9
Nonagriculture	17.8	11.3	9.4	9.2
Applied tariff (incl. prefs.) - production weighted avg (%)	—	—	14.8	12.9
Applied tariff (incl. prefs.) escalation (% diff. raw to finished)	—	2.8	2.6	2.8
Agriculture	—	5.6	5.2	5.7
Nonagriculture	—	5.6	3.9	4.0
Import duties (% of imports)	13.9	9.4	8.1	7.7
Tariff overhang (MFN bound less MFN applied rate,%)	43.2	47.9	44.8	46.8
Bound tariff frequency ratio (% of total lines)	37.2	39.4	43.7	47.4
Specific tariffs frequency ratio (%)	0.9	0.4	0.6	0.7
Non-tariff measures frequency ratio (%)	6.7	11.0	—	—
Overall GATS restrictiveness index (0–100, best)	—	—	13.4	13.8





EXTERNAL ENVIRONMENT (EE) *	1995–99^	2000–04^	2005–06^	Latest^
MA-TTRI (applied tariffs incl. prefs.)	—	—	**7.0**	**6.3**
MA-OTRI (applied tariffs incl. prefs.+NTMs)	—	—	21.1	18.0
Other external environment indicators				
ROW applied tariff (incl. prefs.) - weighted avg (%)	7.7	4.8	4.5	3.7
Agriculture	6.5	7.0	7.3	5.5
Nonagriculture	7.0	4.2	3.2	2.7
MFN zero-duty exports (% of total exports)	37.4	41.5	43.0	44.6
Exports with FTA / CU partners (% of total exports)	8.2	9.2	8.8	10.6
Preferences (EU+U.S.) utilization rate (%)	—	—	83.0	71.0
Preferences (EU+U.S.) actual value (% of exports)	—	—	3.4	3.3
Real effective exchange rate (% change,+ =apprec.)	3.0	−4.0	5.2	−2.2



*^ Indicators shown are period averages, incl. growth rates. Latest indicates 2007; when not available, 2006 (noted by *). For more info., see User's Guide at http://www.worldbank.org/wti2008.*

** MFN: most favored nation; NTM: nontariff measures; MA: market access; ROW: rest of the world; FTA: free trade agreement; CU: customs union; WTO: Wrold Trade Organization*

GATT: General Agreement on Tariffs and Trade; WGI: World Government Indicators; "—" indicates missing value; RTA/EIA: regional trade arrangement/economic integration arrangement.

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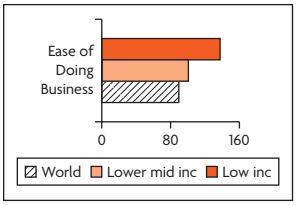
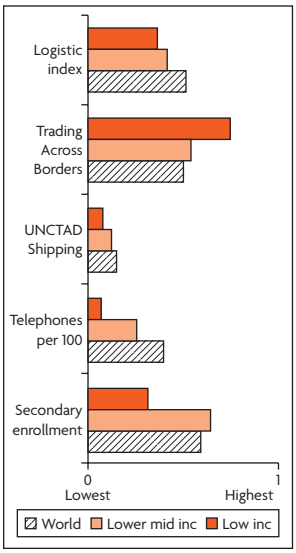
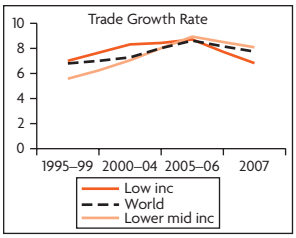
INSTITUTIONAL ENVIRONMENT (IE)	2004	2006	2007
Ease of Doing Business (rank out of 178)	—	136.7	136.9
Starting a business (rank)	—	114.7	117.6
Enforcing contracts (rank)	—	111.2	114.4
Closing a business (rank)	—	123.8	127.1
Other institutional environment indicators			
WGI - Regulatory Quality (−2.5 to +2.5, best)	−0.93	−0.92	—
WGI - Rule of Law (−2.5 to +2.5, best)	−0.94	−0.93	—
WGI - Control of Corruption (−2.5 to +2.5, best)	−0.87	−0.87	—

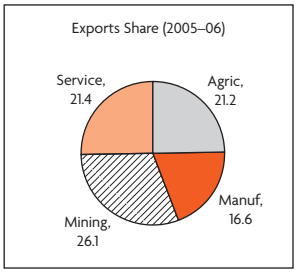


TRADE FACILITATION (TF)	1995–99^	2000–04^	2005–06^	Latest^
Logistics Performance Index (LPI, 1 to 5 best)	—	—	**2.3**	**2.3**
Efficiency of customs and other border procedures	—	—	2.1	2.1
Quality of transport and IT infrastructures	—	—	2.1	2.1
International transportation costs	—	—	2.3	2.3
Logistics competence	—	—	2.3	2.3
Trackability of shipments	—	—	2.2	2.2
Domestic transportation costs	—	—	3.0	3.0
Timeliness of shipment	—	—	2.7	2.7
Other trade facilitation indicators				
Doing Business - Trading Across Borders (rank out of 178)	—	—	130	133
No. of documents required for exports	—	—	9	8
No. of days process required for exports	—	—	43	39
Cost to export (US$ per container)	—	—	1,642	1,633
No. of documents required for imports	—	—	11	9
No. of days process required for imports	—	—	52	46
Cost to import (US$ per container)	—	—	2,062	2,034
Liner shipping connectivity index (0–100 best)	—	8.4	8.4	9.3
Telephones and mobiles per 100 people	1.2	3.5	11.0	15.1
Average cost of 3-minute call to U.S. (US$)	8.2	5.7	0.4	—
Internet usage (per 100 people)	0.1	1.0	3.2	3.9
Secondary gross school enrollment (%)	27.8	32.9	38.6	42.0



TRADE OUTCOME (TO) ##	1995–99^	2000–04^	2005–06^	Latest^
Real growth in trade of goods and services (%)	**7.0**	**8.3**	**8.6**	**6.6**
Exports	8.5	9.1	8.6	6.5
Imports	7.3	7.4	9.8	6.6
Other trade outcome indicators				
Trade integration (trade as % of GDP)	61.4	67.4	78.1	80.1
FDI inflow (% of GDP)	2.5	3.3	3.3	3.2
World trade share growth (%)	0.3	1.5	2.4	−1.4
Exports	1.9	2.9	1.6	−1.6
Imports	0.2	1.4	2.9	−0.9
Merchandise share in total exports (%)	75.7	76.6	78.5	79.5
Agriculture	30.8	23.9	21.2	18.0
Manufacturing	13.4	16.9	16.6	13.8
Mining and fuel	19.0	19.1	26.1	32.0
Service share in total exports (%)	24.3	23.4	21.4	20.4
Tourism	11.1	11.3	9.3	9.5
Transportation	4.9	4.9	5.3	5.7
Other commercial services	7.0	6.2	5.9	5.8
Export product concentration index (0 to 100, highest)	45.4	47.4	45.9	46.5
Export market concentration index (0 to 100, highest)	43.2	42.7	40.6	41.4
Top 5 exports share (% of merchandise exports)	85.2	74.8	72.8	—
Top 5 exports list (merchandise only)				





*^ Indicators shown are period averages, incl. growth rates. Latest indicates 2008; when not available, 2006 (noted by *). For more info., see User's Guide at http://www.worldbank.org/wti2007*
Outcome indicators (mostly through 2006) are from the WDI (World Bank, Data Group), UNCTAD or COMTRADE; for filling gaps and 2007, data from the Prospects Group are used.

Lower-Middle-Income Countries: Trade At-A-Glance

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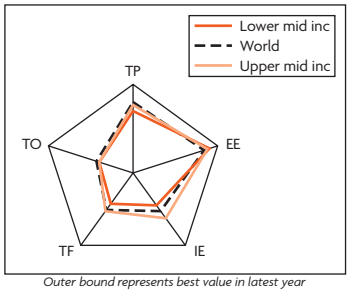
2007 GDP (millions)	2007 GDP per capita	2007 Share in World Trade	2007 Trade per capita	Membership GATT	Membership WTO	No. of RTAs/EIAs Goods	No. of RTAs/EIAs Services
$135,183	$2,702	0.32%	$2,528	—	—	3.0	0.4

TRADE PERFORMANCE ‡

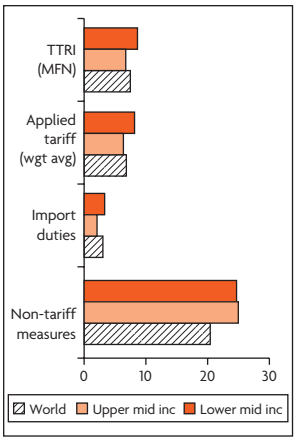
	Ranking	Decile
TRADE POLICY (TP) (out of 125)	**77.4**	**7.0**
EXTERNAL ENVIRONMENT (EE) (out of 125)	**54.1**	**5.0**
INSTITUTIONAL ENVIRONMENT (IE) (out of 178)	**100.7**	**6.0**
TRADE FACILITATION (TF) (out of 151)	**92.2**	**7.0**
TRADE OUTCOME (TO) (out of 160)	**78.8**	**5.0**

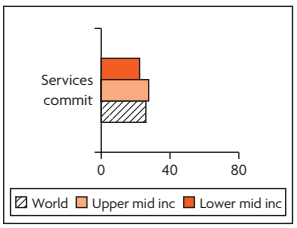


‡ Rankings are based on the "representative" indicators (in bold) in each group below for the latest year

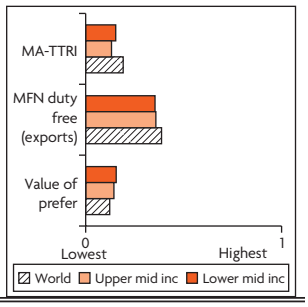
Outer bound represents best value in latest year

TRADE POLICY (TP) *	1995–99^	2000–04^	2005–06^	Latest^
Trade Tariff Restrictiveness Index (MFN applied tariffs)	—	**10.3**	**8.2**	**8.7**
TTRI (applied tariffs including preferences)	—	—	8.3	8.3
Overall TRI (OTRI, applied tariffs incl. prefs.+NTMs)	—	—	16.1	16.1
Other trade policy indicators				
MFN applied tariff - simple avg (%)	15.4	13.7	11.5	11.5
Dispersion (coefficient of variation)	0.9	1.1	1.3	1.5
Maximum rate	287.2	197.9	247.8	262.9
Agriculture - simple avg (%)	20.9	18.4	18.7	18.7
Nonagriculture - simple avg (%)	14.5	12.9	10.4	10.4
MFN applied tariff - trade weighted avg (%)	12.7	11.2	11.2	11.1
MFN zero-duty imports (% in total imports)	12.7	19.8	31.7	31.0
Applied tariff (incl. prefs.) - trade weighted avg (%)	12.6	10.6	8.1	8.2
Agriculture	17.0	14.6	14.8	15.6
Nonagriculture	12.0	10.0	7.2	7.3
Applied tariff (incl. prefs.) - production weighted avg (%)	—	—	14.5	11.3
Applied tariff (incl. prefs.) escalation (% diff. raw to finished)	—	1.7	1.8	2.1
Agriculture	—	6.1	10.1	10.2
Nonagriculture	—	3.6	2.9	3.2
Import duties (% of imports)	7.4	5.8	4.7	3.4
Tariff overhang (MFN bound less MFN applied rate, %)	17.1	19.1	21.0	21.4
Bound tariff frequency ratio (% of total lines)	92.3	67.5	75.1	77.1
Specific tariffs frequency ratio (%)	5.6	2.8	1.5	1.7
Non-tariff measures frequency ratio (%)	15.0	24.7	—	—
Overall GATS restrictiveness index (0–100, best)	—	—	21.2	21.7





EXTERNAL ENVIRONMENT (EE) *	1995–99^	2000–04^	2005–06^	Latest^
MA-TTRI (applied tariffs incl. prefs.)	—	—	**4.2**	**3.2**
MA-OTRI (applied tariffs incl. prefs.+NTMs)	—	—	16.8	14.7
Other external environment indicators				
ROW applied tariff (incl. prefs.) - weighted avg (%)	10.1	6.2	4.0	2.5
Agriculture	15.8	12.7	8.9	3.9
Nonagriculture	7.5	4.5	2.6	2.2
MFN zero-duty exports (% of total exports)	27.5	30.1	34.0	35.3
Exports with FTA/CU partners (% of total exports)	21.2	30.1	34.2	35.6
Preferences (EU+U.S.) utilization rate (%)	—	—	85.2	73.5
Preferences (EU+U.S.) actual value (% of exports)	—	—	4.9	5.0
Real effective exchange rate (% change, + =apprec.)	0.9	0.0	2.0	2.8



*^ Indicators shown are period averages, incl. growth rates. Latest indicates 2007; when not available, 2006 (noted by *). For more info., see User's Guide at http://www.worldbank.org/wti2008.*

** MFN: most favored nation; NTM: nontariff measures; MA: market access; ROW: rest of the world; FTA: free trade agreement; CU: customs union; WTO: Wrold Trade Organization.*

GATT: General Agreement on Tariffs and Trade; WGI: World Government Indicators; "—" indicates missing value; RTA/EIA: regional trade arrangement/economic integration arrangement.

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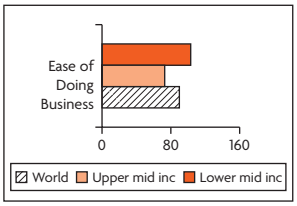
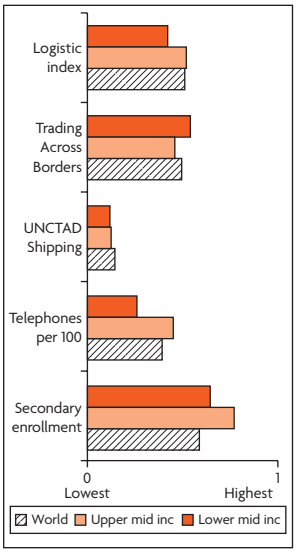
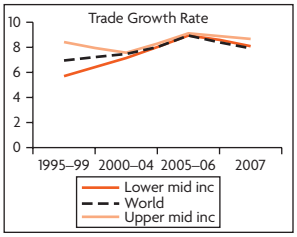
INSTITUTIONAL ENVIRONMENT (IE)	2004	2006	2007
Ease of Doing Business (rank out of 178)	—	101.9	100.7
Starting a business (rank)	—	102.9	100.0
Enforcing contracts (rank)	—	94.4	94.1
Closing a business (rank)	—	100.3	100.9
Other institutional environment indicators			
WGI - Regulatory Quality (−2.5 to +2.5, best)	−0.48	−0.48	—
WGI - Rule of Law (−2.5 to +2.5, best)	−0.48	−0.44	—
WGI - Control of Corruption (−2.5 to +2.5, best)	−0.48	−0.48	—

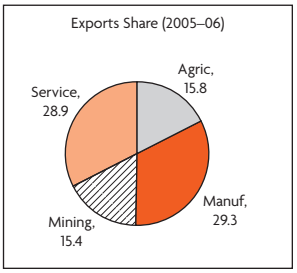


TRADE FACILITATION (TF)	1995–99^	2000–04^	2005–06^	Latest^
Logistics Performance Index (LPI, 1 to 5 best)	—	—	**2.5**	**2.5**
Efficiency of customs and other border procedures	—	—	2.3	2.3
Quality of transport and IT infrastructures	—	—	2.3	2.3
International transportation costs	—	—	2.5	2.5
Logistics competence	—	—	2.4	2.4
Trackability of shipments	—	—	2.4	2.4
Domestic transportation costs	—	—	3.0	3.0
Timeliness of shipment	—	—	2.9	2.9
Other trade facilitation indicators				
Doing Business - Trading Across Borders (rank out of 178)		—	100	97
No. of documents required for exports	—	—	8	8
No. of days process required for exports	—	—	29	27
Cost to export (US$ per container)	—	—	1,175	1,125
No. of documents required for imports	—	—	9	8
No. of days process required for imports	—	—	34	30
Cost to import (US$ per container)	—	—	1,302	1,239
Liner shipping connectivity index (0–100 best)	—	12.4	13.6	15.2
Telephones and mobiles per 100 people	7.9	20.7	46.3	55.5
Average cost of 3-minute call to U.S. (US$)	5.6	3.2	3.5	—
Internet usage (per 100 people)	0.3	3.8	9.1	10.3
Secondary gross school enrollment (%)	62.9	68.7	74.7	75.0



TRADE OUTCOME (TO) ##	1995–99^	2000–04^	2005–06^	Latest^
Real growth in trade of goods and services (%)	**5.5**	**7.0**	**8.9**	**8.3**
Exports	6.7	7.5	9.0	8.0
Imports	5.4	7.4	9.2	8.6
Other trade outcome indicators				
Trade integration (trade as % of GDP)	88.7	93.6	100.3	98.8
FDI inflow (% of GDP)	4.6	6.1	6.6	5.3
World trade share growth (%)	−0.8	2.3	4.0	−0.2
Exports	0.0	3.4	4.9	0.5
Imports	−0.9	2.0	3.1	−0.7
Merchandise share in total exports (%)	71.2	70.1	71.1	71.5
Agriculture	19.3	16.4	15.8	15.1
Manufacturing	27.1	30.9	29.3	26.5
Mining and fuel	18.0	14.7	15.4	17.5
Service share in total exports (%)	28.8	29.9	28.9	28.4
Tourism	13.2	14.9	15.6	16.3
Transportation	6.9	6.7	6.2	6.1
Other commercial services	7.0	6.4	5.8	5.7
Export product concentration index (0 to 100, highest)	37.9	38.9	38.3	38.8
Export market concentration index (0 to 100, highest)	44.4	42.5	38.5	36.6
Top 5 exports share (% of merchandise exports)	87.0	68.6	62.9	—
Top 5 exports list (merchandise only)				





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Outcome indicators (mostly through 2006) are from the WDI (World Bank, Data Group), UNCTAD or COMTRADE; for filling gaps and 2007, data from the Prospects Group are used.

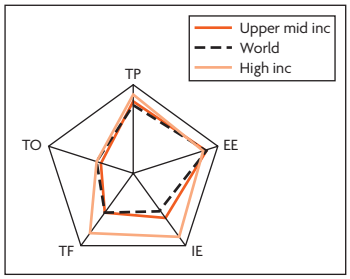
Upper-Middle-Income Countries: Trade At-A-Glance

Apr-08

2007 GDP (millions)	2007 GDP per capita	2007 Share in World Trade	2007 Trade per capita	Membership GATT	Membership WTO	No. of RTAs/EIAs Goods	No. of RTAs/EIAs Services
$194,493	$8,312	0.38%	$9,423	—	—	7.1	1.7

TRADE PERFORMANCE ‡

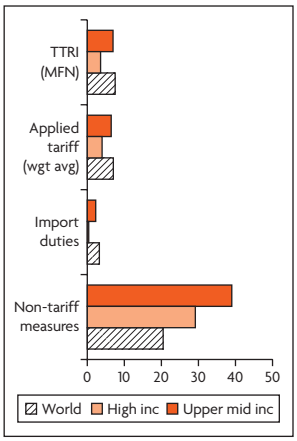
	Ranking	Decile
TRADE POLICY (TP) (out of 125)	**58.7**	**5.0**
EXTERNAL ENVIRONMENT (EE) (out of 125)	**45.6**	**4.0**
INSTITUTIONAL ENVIRONMENT (IE) (out of 178)	**71.9**	**5.0**
TRADE FACILITATION (TF) (out of 151)	**67.6**	**5.0**
TRADE OUTCOME (TO) (out of 160)	**72.0**	**5.0**

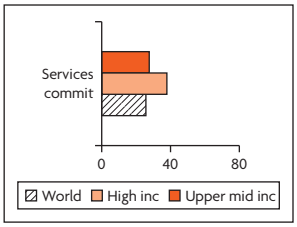


‡ Rankings are based on the "representative" indicators (in bold) in each group below for the latest year

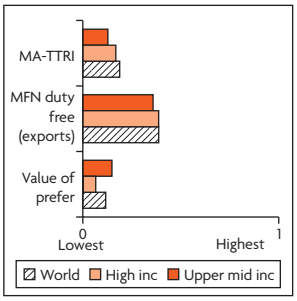
Outer bound represents best value in latest year

TRADE POLICY (TP) *	1995–99^	2000–04^	2005–06^	Latest^
Trade Tariff Restrictiveness Index (MFN applied tariffs)	—	**10.6**	**6.8**	**6.8**
TTRI (applied tariffs including preferences)	—	—	5.3	5.3
Overall TRI (OTRI, applied tariffs incl. prefs.+NTMs)	—	—	12.0	12.0
Other trade policy indicators				
MFN applied tariff - simple avg (%)	14.1	11.5	8.7	8.5
Dispersion (coefficient of variation)	1.3	1.5	1.4	1.5
Maximum rate	218.1	202.6	228.2	241.5
Agriculture - simple avg (%)	19.2	18.5	14.9	15.3
Nonagriculture - simple avg (%)	13.2	10.4	7.8	7.5
MFN applied tariff - trade weighted avg (%)	12.2	10.6	9.3	8.4
MFN zero-duty imports (% in total imports)	16.9	21.5	36.8	39.6
Applied tariff (incl. prefs.) - trade weighted avg (%)	11.4	9.3	7.2	6.4
Agriculture	15.7	15.7	10.6	10.5
Nonagriculture	11.0	8.5	6.9	6.0
Applied tariff (incl. prefs.) - production weighted avg (%)	—	—	6.8	5.2
Applied tariff (incl. prefs.) escalation (% diff. raw to finished)		3.1	1.0	1.2
Agriculture	—	8.5	8.4	9.3
Nonagriculture	—	4.6	1.7	1.7
Import duties (% of imports)	7.0	3.9	2.6	2.1
Tariff overhang (MFN bound less MFN applied rate, %)	22.1	22.2	25.8	24.0
Bound tariff frequency ratio (% of total lines)	90.5	77.9	80.3	85.5
Specific tariffs frequency ratio (%)	13.9	3.1	3.2	3.9
Non-tariff measures frequency ratio (%)	25.1	38.9	—	—
Overall GATS restrictiveness index (0–100, best)	—	—	27.9	27.1





EXTERNAL ENVIRONMENT (EE) *	1995–99^	2000–04^	2005–06^	Latest^
MA-TTRI (applied tariffs incl. prefs.)	—	—	**3.6**	**2.8**
MA-OTRI (applied tariffs incl. prefs.+NTMs)	—	—	13.6	9.2
Other external environment indicators				
ROW applied tariff (incl. prefs.) - weighted avg (%)	15.4	6.5	3.4	2.1
Agriculture	23.0	17.6	11.7	3.9
Nonagriculture	10.3	4.2	2.1	1.9
MFN zero-duty exports (% of total exports)	20.5	28.3	34.0	35.9
Exports with FTA/CU partners (% of total exports)	16.1	33.0	32.0	32.0
Preferences (EU+U.S.) utilization rate (%)	—	—	90.5	83.8
Preferences (EU+U.S.) actual value (% of exports)	—	—	4.4	4.6
Real effective exchange rate (% change,+ =apprec.)	1.7	0.7	2.5	2.8



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** MFN: most favored nation; NTM: nontariff measures; MA: market access; ROW: rest of the world; FTA: free trade agreement; CU: customs union; WTO: Wrold Trade Organization GATT: General Agreement on Tariffs and Trade; WGI: World Government Indicators; "—" indicates missing value; RTA/EIA: regional trade arrangement/economic integration arrangement.*

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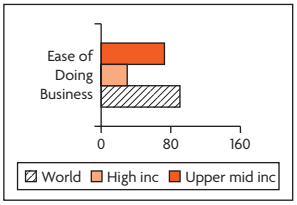
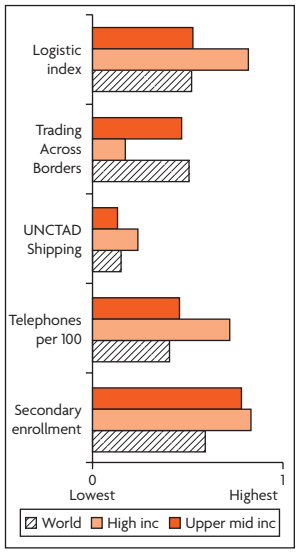
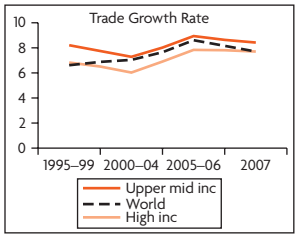
INSTITUTIONAL ENVIRONMENT (IE)	2004	2006	2007
Ease of Doing Business (rank out of 178)	—	70.7	71.9
Starting a business (rank)	—	74.6	78.8
Enforcing contracts (rank)	—	85.6	86.6
Closing a business (rank)	—	91.0	89.9
Other institutional environment indicators			
WGI - Regulatory Quality (−2.5 to +2.5, best)	0.18	0.24	—
WGI - Rule of Law (−2.5 to +2.5, best)	0.10	0.08	—
WGI - Control of Corruption (−2.5 to +2.5, best)	0.02	0.06	—

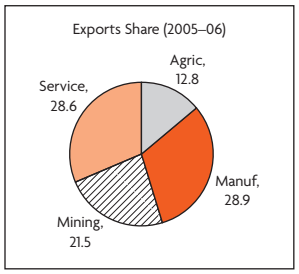


TRADE FACILITATION (TF)	1995–99^	2000–04^	2005–06^	Latest^
Logistics Performance Index (LPI, 1 to 5 best)	—	—	**2.8**	**2.8**
Efficiency of customs and other border procedures	—	—	2.6	2.6
Quality of transport and IT infrastructures	—	—	2.6	2.6
International transportation costs	—	—	2.7	2.7
Logistics competence	—	—	2.7	2.7
Trackability of shipments	—	—	2.7	2.7
Domestic transportation costs	—	—	2.9	2.9
Timeliness of shipment	—	—	3.2	3.2
Other trade facilitation indicators				
Doing Business - Trading Across Borders (rank out of 178)	—	—	80	82
No. of documents required for exports	—	—	7	7
No. of days process required for exports	—	—	23	22
Cost to export (US$ per container)	—	—	1,172	1,227
No. of documents required for imports	—	—	8	7
No. of days process required for imports	—	—	27	25
Cost to import (US$ per container)	—	—	1,296	1,335
Liner shipping connectivity index (0–100 best)	—	12.5	13.4	15.7
Telephones and mobiles per 100 people	20.9	49.7	86.4	95.2
Average cost of 3-minute call to U.S. (US$)	4.7	7.2	29.2	—
Internet usage (per 100 people)	1.5	11.4	21.4	22.9
Secondary gross school enrollment (%)	79.6	86.0	90.4	88.0



TRADE OUTCOME (TO) ##	1995–99^	2000–04^	2005–06^	Latest^
Real growth in trade of goods and services (%)	**8.2**	**7.3**	**8.9**	**8.3**
Exports	8.7	7.5	8.1	7.2
Imports	8.5	7.6	10.3	9.5
Other trade outcome indicators				
Trade integration (trade as % of GDP)	93.1	96.1	105.6	107.4
FDI inflow (% of GDP)	6.4	6.0	7.6	8.8
World trade share growth (%)	3.3	2.3	3.5	1.5
Exports	4.4	3.2	3.0	1.3
Imports	3.7	1.9	3.5	1.6
Merchandise share in total exports (%)	72.6	71.7	71.4	74.7
Agriculture	15.6	12.9	12.8	12.7
Manufacturing	29.3	32.6	28.9	32.5
Mining and fuel	18.2	17.0	21.5	24.0
Service share in total exports (%)	27.7	28.5	28.6	25.2
Tourism	15.9	17.2	17.8	10.8
Transportation	6.0	5.7	5.5	5.4
Other commercial services	6.2	6.4	7.2	5.8
Export product concentration index (0 to 100, highest)	31.6	35.1	34.7	35.4
Export market concentration index (0 to 100, highest)	40.9	41.9	41.4	41.3
Top 5 exports share (% of merchandise exports)	—	32.1	56.4	—
Top 5 exports list (merchandise only)				





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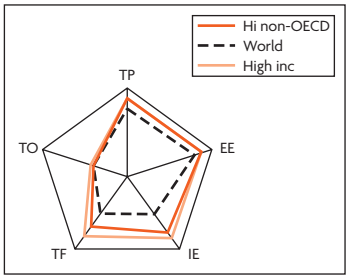
High-Income Non-OECD Countries: Trade At-A-Glance

Apr-08

2007 GDP (millions)	2007 GDP per capita	2007 Share in World Trade	2007 Trade per capita	Membership GATT	Membership WTO	No. of RTAs/EIAs Goods	No. of RTAs/EIAs Services
$135,396	$22,995	0.76%	$43,721	—	—	6.7	1.7

TRADE PERFORMANCE ‡

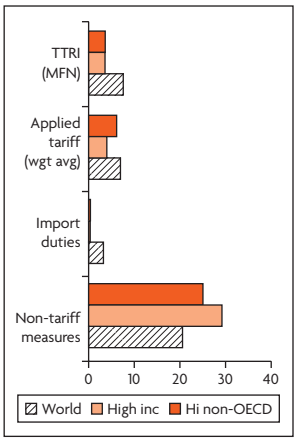
	Ranking	Decile
TRADE POLICY (TP) (out of 125)	**28.1**	**3.0**
EXTERNAL ENVIRONMENT (EE) (out of 125)	**48.9**	**4.0**
INSTITUTIONAL ENVIRONMENT (IE) (out of 178)	**38.5**	**3.0**
TRADE FACILITATION (TF) (out of 151)	**31.9**	**3.0**
TRADE OUTCOME (TO) (out of 160)	**90.2**	**6.0**

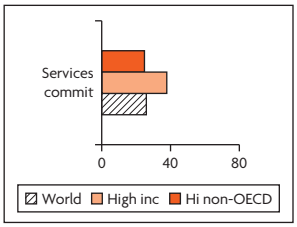


‡ Rankings are based on the "representative" indicators (in bold) in each group below for the latest year

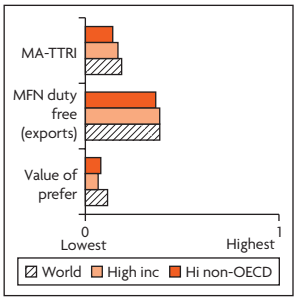
Outer bound represents best value in latest year

TRADE POLICY (TP) *	1995–99^	2000–04^	2005–06^	Latest^
Trade Tariff Restrictiveness Index (MFN applied tariffs)	—	**5.1**	**3.6**	**3.5**
TTRI (applied tariffs including preferences)	—	—	4.2	4.2
Overall TRI (OTRI, applied tariffs incl. prefs.+NTMs)	—	—	7.4	7.4
Other trade policy indicators				
MFN applied tariff - simple avg (%)	11.3	9.1	7.2	7.5
Dispersion (coefficient of variation)	2.5	9.2	5.3	1.9
Maximum rate	343.4	793.5	364.1	339.8
Agriculture - simple avg (%)	13.5	15.8	12.1	12.8
Nonagriculture - simple avg (%)	10.7	8.1	6.5	6.7
MFN applied tariff - trade weighted avg (%)	10.9	18.5	6.9	7.0
MFN zero-duty imports (% in total imports)	30.2	28.8	51.3	50.7
Applied tariff (incl. prefs.) - trade weighted avg (%)	10.8	18.1	6.0	6.0
Agriculture	13.5	22.3	13.5	13.2
Nonagriculture	10.4	16.9	5.4	5.3
Applied tariff (incl. prefs.) - production weighted avg (%)	—	3.5	1.5	—
Applied tariff (incl. prefs.) escalation (% diff. raw to finished)	—	0.2	0.2	0.0
Agriculture	—	3.9	6.6	7.7
Nonagriculture	—	1.3	0.5	0.1
Import duties (% of imports)	3.2	2.0	1.8	0.3
Tariff overhang (MFN bound less MFN applied rate,%)	23.4	30.6	28.0	20.7
Bound tariff frequency ratio (% of total lines)	71.4	76.1	76.7	83.2
Specific tariffs frequency ratio (%)	12.2	2.3	3.5	3.1
Non-tariff measures frequency ratio (%)	20.5	25.0	—	—
Overall GATS restrictiveness index (0–100, best)	—	—	23.3	24.8





EXTERNAL ENVIRONMENT (EE) *	1995–99^	2000–04^	2005–06^	Latest^
MA-TTRI (applied tariffs incl. prefs.)	—	—	**3.4**	**3.0**
MA-OTRI (applied tariffs incl. prefs.+NTMs)	—	—	10.7	7.3
Other external environment indicators				
ROW applied tariff (incl. prefs.) - weighted avg (%)	35.0	4.7	3.0	2.5
Agriculture	27.6	18.2	9.4	6.1
Nonagriculture	33.6	4.1	2.5	2.3
MFN zero-duty exports (% of total exports)	20.1	29.2	34.9	37.0
Exports with FTA/CU partners (% of total exports)	12.6	29.2	31.7	33.4
Preferences (EU+U.S.) utilization rate (%)	—	—	80.0	57.0
Preferences (EU+U.S.) actual value (% of exports)	—	—	2.7	2.5
Real effective exchange rate (% change,+ =apprec.)	−0.6	−0.5	−0.6	−1.5



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GATT: General Agreement on Tariffs and Trade; WGI: World Government Indicators; "—" indicates missing value; RTA/EIA: regional trade arrangement/economic integration arrangement.

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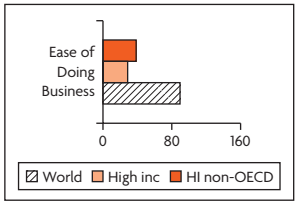
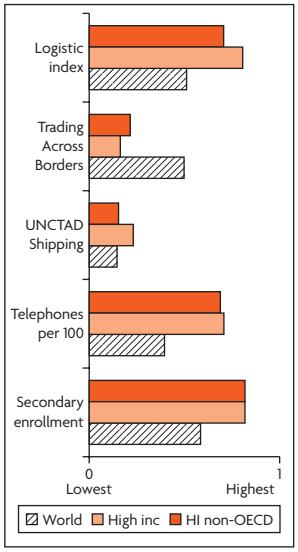
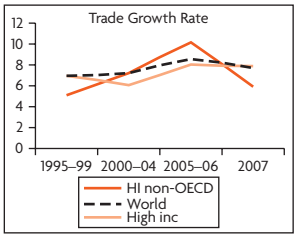
INSTITUTIONAL ENVIRONMENT (IE)	2004	2006	2007
Ease of Doing Business (rank out of 178)	—	38.1	38.5
Starting a business (rank)	—	60.2	60.6
Enforcing contracts (rank)	—	78.5	90.3
Closing a business (rank)	—	54.3	56.8
Other institutional environment indicators			
WGI - Regulatory Quality (−2.5 to +2.5, best)	1.04	0.94	—
WGI - Rule of Law (−2.5 to +2.5, best)	0.95	0.83	—
WGI - Control of Corruption (−2.5 to +2.5, best)	0.96	0.88	—

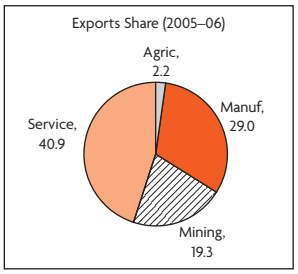


TRADE FACILITATION (TF)	1995–99^	2000–04^	2005–06^	Latest^
Logistics Performance Index (LPI, 1 to 5 best)	—	—	**3.3**	**3.3**
Efficiency of customs and other border procedures	—	—	3.1	3.1
Quality of transport and IT infrastructures	—	—	3.3	3.3
International transportation costs	—	—	3.3	3.3
Logistics competence	—	—	3.3	3.3
Trackability of shipments	—	—	3.3	3.3
Domestic transportation costs	—	—	2.8	2.8
Timeliness of shipment	—	—	3.8	3.8
Other trade facilitation indicators				
Doing Business - Trading Across Borders (rank out of 178)	—	—	33	39
No. of documents required for exports	—	—	6	6
No. of days process required for exports	—	—	13	15
Cost to export (US$ per container)	—	—	739	757
No. of documents required for imports	—	—	7	6
No. of days process required for imports	—	—	16	15
Cost to import (US$ per container)	—	—	803	780
Liner shipping connectivity index (0–100 best)	—	18.0	18.6	19.5
Telephones and mobiles per 100 people	49.5	99.5	135.1	144.6
Average cost of 3-minute call to U.S. (US$)	3.6	2.0	3.1	—
Internet usage (per 100 people)	4.9	28.1	41.0	45.5
Secondary gross school enrollment (%)	88.1	90.2	92.4	92.9



TRADE OUTCOME (TO) ##	1995–99^	2000–04^	2005–06^	Latest^
Real growth in trade of goods and services (%)	**5.1**	**7.2**	**10.2**	**6.5**
Exports	4.6	7.7	9.9	5.1
Imports	5.8	6.9	10.8	8.3
Other trade outcome indicators				
Trade integration (trade as % of GDP)	149.9	157.3	165.5	172.0
FDI inflow (% of GDP)	14.9	5.8	8.6	10.1
World trade share growth (%)	0.6	0.3	2.9	−3.7
Exports	0.3	1.5	2.0	−3.9
Imports	1.2	−0.8	0.9	−0.1
Merchandise share in total exports (%)	63.0	59.6	59.1	62.6
Agriculture	8.4	7.0	2.2	2.0
Manufacturing	27.0	27.8	29.0	32.4
Mining and fuel	19.5	18.6	19.3	19.4
Service share in total exports (%)	37.0	40.4	40.9	37.4
Tourism	21.3	23.2	22.8	20.9
Transportation	7.3	7.1	6.8	7.0
Other commercial services	7.5	8.8	10.7	10.7
Export product concentration index (0 to 100, highest)	41.8	42.0	45.7	45.6
Export market concentration index (0 to 100, highest)	48.0	46.5	41.3	40.5
Top 5 exports share (% of merchandise exports)	91.8	71.6	68.6	—
Top 5 exports list (merchandise only)				





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High-Income OECD Countries: Trade At-A-Glance

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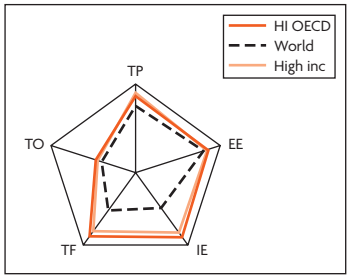
2007 GDP (millions)	2007 GDP per capita	2007 Share in World Trade	2007 Trade per capita	Membership GATT	Membership WTO	No. of RTAs/EIAs Goods	No. of RTAs/EIAs Services
$1,524,046	$45,023	2.37%	$46,948	—	—	18.1	4.2

TRADE PERFORMANCE ‡

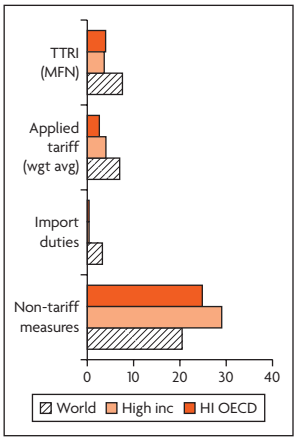
	Ranking	Decile
TRADE POLICY (TP) (out of 125)	**21.8**	**2.0**
EXTERNAL ENVIRONMENT (EE) (out of 125)	**68.4**	**6.0**
INSTITUTIONAL ENVIRONMENT (IE) (out of 178)	**23.5**	**2.0**
TRADE FACILITATION (TF) (out of 151)	**15.5**	**2.0**
TRADE OUTCOME (TO) (out of 160)	**67.3**	**5.0**

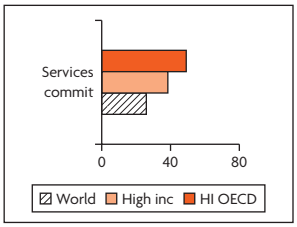


‡ Rankings are based on the "representative" indicators (in bold) in each group below for the latest year

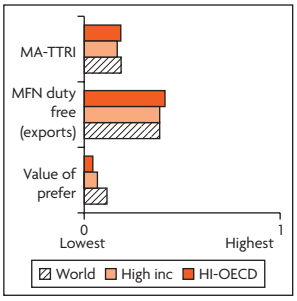
Outer bound represents best value in latest year

TRADE POLICY (TP) *	1995–99^	2000–04^	2005–06^	Latest^
Trade Tariff Restrictiveness Index (MFN applied tariffs)	—	**5.2**	**4.0**	**3.7**
TTRI (applied tariffs including preferences)	—	—	1.9	1.9
Overall TRI (OTRI, applied tariffs incl. prefs.+NTMs)	—	—	6.7	6.7
Other trade policy indicators				
MFN applied tariff - simple avg (%)	7.4	6.2	5.7	5.6
Dispersion (coefficient of variation)	4.5	8.8	2.4	2.4
Maximum rate	1488.0	1903.7	365.6	346.9
Agriculture - simple avg (%)	23.4	20.4	19.0	19.4
Nonagriculture - simple avg (%)	5.1	4.1	3.7	3.6
MFN applied tariff - trade weighted avg (%)	7.8	4.0	3.4	3.3
MFN zero-duty imports (% in total imports)	28.8	44.0	59.5	60.1
Applied tariff (incl. prefs.) - trade weighted avg (%)	6.5	2.9	2.1	2.4
Agriculture	20.7	17.4	14.0	14.8
Nonagriculture	5.4	1.9	1.5	1.6
Applied tariff (incl. prefs.) - production weighted avg (%)	—	—	2.9	1.9
Applied tariff (incl. prefs.) escalation (% diff. raw to finished)	—	−0.3	0.1	−0.1
Agriculture	—	5.0	16.1	15.8
Nonagriculture	—	−0.5	1.7	1.3
Import duties (% of imports)	0.8	0.7	0.7	0.2
Tariff overhang (MFN bound less MFN applied rate, %)	−0.1	1.1	2.0	2.1
Bound tariff frequency ratio (% of total lines)	99.6	99.5	99.5	99.4
Specific tariffs frequency ratio (%)	3.0	2.8	13.3	11.8
Non-tariff measures frequency ratio (%)	32.7	24.7	—	—
Overall GATS restrictiveness index (0–100, best)	—	—	49.1	49.1





EXTERNAL ENVIRONMENT (EE) *	1995–99^	2000–04^	2005–06^	Latest^
MA-TTRI (applied tariffs incl. prefs.)	—	—	**4.7**	**4.1**
MA-OTRI (applied tariffs incl. prefs.+NTMs)	—	—	15.8	9.8
Other external environment indicators				
ROW applied tariff (incl. prefs.) - weighted avg (%)	7.9	5.2	3.6	3.0
Agriculture	21.8	17.1	10.6	8.0
Nonagriculture	6.2	3.9	2.8	2.6
MFN zero-duty exports (% of total exports)	23.2	34.7	39.6	41.7
Exports with FTA / CU partners (% of total exports)	51.8	56.1	56.3	56.4
Preferences (EU+U.S.) utilization rate (%)	—	—	93.5	93.0
Preferences (EU+U.S.) actual value (% of exports)	—	—	1.4	1.4
Real effective exchange rate (% change,+ =apprec.)	−0.1	1.2	0.3	1.9



*^ Indicators shown are period averages, incl. growth rates. Latest indicates 2007; when not available, 2006 (noted by *). For more info., see User's Guide at http://www.worldbank.org/wti2008.*

** MFN: most favored nation; NTM: nontariff measures; MA: market access; ROW: rest of the world; FTA: free trade agreement; CU: customs union; WTO: Wrold Trade Organization.*

GATT: General Agreement on Tariffs and Trade; WGI: World Government Indicators; "—" indicates missing value; RTA/EIA: regional trade arrangement/economic integration arrangement.

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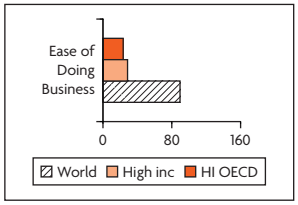
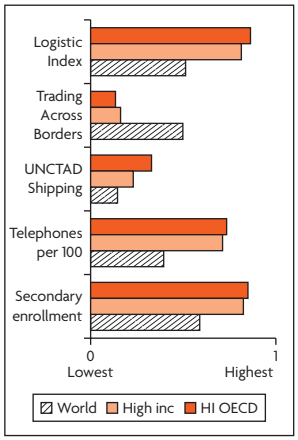
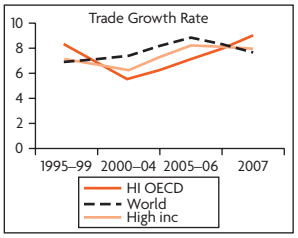
INSTITUTIONAL ENVIRONMENT (IE)	2004	2006	2007
Ease of Doing Business (rank out of 178)	—	23.4	23.5
Starting a business (rank)	—	36.2	41.6
Enforcing contracts (rank)	—	33.3	33.4
Closing a business (rank)	—	19.2	20.5
Other institutional environment indicators			
WGI - Regulatory Quality (−2.5 to +2.5, best)	1.47	1.38	—
WGI - Rule of Law (−2.5 to +2.5, best)	1.55	1.53	—
WGI - Control of Corruption (−2.5 to +2.5, best)	1.67	1.63	—

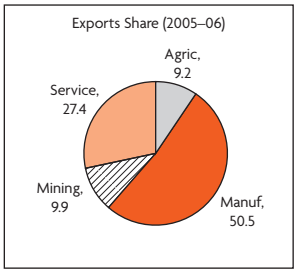


TRADE FACILITATION (TF)	1995–99^	2000–04^	2005–06^	Latest^
Logistics Performance Index (LPI, 1 to 5 best)	—	—	**3.8**	**3.8**
Efficiency of customs and other border procedures	—	—	3.6	3.6
Quality of transport and IT infrastructures	—	—	3.8	3.8
International transportation costs	—	—	3.6	3.6
Logistics competence	—	—	3.8	3.8
Trackability of shipments	—	—	3.8	3.8
Domestic transportation costs	—	—	2.5	2.5
Timeliness of shipment	—	—	4.2	4.2
Other trade facilitation indicators				
Doing Business - Trading Across Borders (rank out of 178)		—	23	25
No. of documents required for exports	—	—	5	5
No. of days process required for exports	—	—	11	10
Cost to export (US$ per container)	—	—	858	900
No. of documents required for imports	—	—	6	5
No. of days process required for imports	—	—	11	11
Cost to import (US$ per container)	—	—	950	981
Liner shipping connectivity index (0–100 best)	—	39.5	41.4	41.9
Telephones and mobiles per 100 people	75.0	130.6	150.9	153.4
Average cost of 3-minute call to U.S. (US$)	2.3	1.5	1.0	—
Internet usage (per 100 people)	11.7	39.4	55.6	57.7
Secondary gross school enrollment (%)	110.4	110.4	107.5	95.6



TRADE OUTCOME (TO) ##	1995–99^	2000–04^	2005–06^	Latest^
Real growth in trade of goods and services (%)	**8.1**	**5.3**	**6.8**	**8.7**
Exports	7.8	5.1	6.2	8.5
Imports	8.4	5.5	7.5	9.0
Other trade outcome indicators				
Trade integration (trade as % of GDP)	75.1	84.6	89.4	91.9
FDI inflow (% of GDP)	3.3	19.0	15.7	16.3
World trade share growth (%)	0.7	0.2	−1.8	0.0
Exports	0.5	0.2	−2.7	−0.2
Imports	1.0	0.1	−0.9	0.5
Merchandise share in total exports (%)	74.9	73.1	72.6	73.1
Agriculture	12.6	10.0	9.2	9.1
Manufacturing	54.2	52.4	50.5	50.3
Mining and fuel	6.9	7.7	9.9	10.6
Service share in total exports (%)	25.1	26.9	27.4	26.9
Tourism	9.4	9.0	8.4	7.1
Transportation	5.9	6.7	6.4	6.2
Other commercial services	9.8	12.8	13.9	13.4
Export product concentration index (0 to 100, highest)	13.2	14.1	14.4	14.4
Export market concentration index (0 to 100, highest)	32.0	31.6	30.8	30.7
Top 5 exports share (% of merchandise exports)	—	—	29.8	—
Top 5 exports list (merchandise only)				





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APPENDIX E

Full List of Indicators

Main Rankings

Trade Policy (TTRI-MFN applied tariffs) (rank out of 125 countries)
External Environment (MA-TTRI incl. prefs) (rank out of 125 countries)
Institutional Environment (Ease of Doing Business) (overall rank out of 178 countries)
Trade Facilitation (LPI) (overall rank out of 151 countries)
Trade Outcome (Real Growth in Trade) (rank out of 160 countries)

Trade Policy—Trade Restrictiveness Indices

TTRI (MFN applied tariff)—All Goods
  TTRI (MFN applied tariff)—Agriculture
  TTRI (MFN applied tariff)—Nonagriculture
OTRI (MFN applied tariff + nontariff measures [NTMs])—All Goods
  OTRI (MFN applied tariff + NTMs)—Agriculture
  OTRI (MFN applied tariff + NTMs)—Nonagriculture
TTRI (applied tariff, incl. prefs)—All Goods
  TTRI (applied tariff, incl. prefs)—Agriculture
  TTRI (applied tariff, incl. prefs)—Nonagriculture
OTRI (applied tariff, incl. prefs + NTMs)—All Goods
  OTRI (applied tariff, incl. prefs + NTMs)—Agriculture
  OTRI (applied tariff, incl. prefs + NTMs)—Nonagriculture
NTM Frequency Ratio—All Goods

Trade Policy—MFN Applied Tariffs (Ad Valorem + Ad Valorem Equivalents)

MFN Applied Tariff—Simple Average—All Goods (%)
  MFN Applied Tariff—Simple Average—Agriculture (%)
  MFN Applied Tariff—Simple Average—Nonagriculture (%)

MFN Applied Tariff—Coefficient of Variation—All Goods
MFN Applied Tariff—Coefficient of Variation—Agriculture
MFN Applied Tariff—Coefficient of Variation—Nonagriculture
MFN Applied Tariff—Maximum—All Goods (%)
MFN Applied Tariff—Maximum—Agriculture (%)
MFN Applied Tariff—Maximum—Nonagriculture (%)
MFN Applied Tariff—Weighted Average—All Goods (%)
MFN Applied Tariff—Weighted Average—Agriculture (%)
MFN Applied Tariff—Weighted Average—Nonagriculture (%)

Trade Policy—MFN Applied Tariffs (Ad Valorem Only)

MFN Applied (AV-only) Tariff—Simple Average—All Goods (%)
MFN Applied (AV-only) Tariff—Simple Average—Agriculture (%)
MFN Applied (AV-only) Tariff—Simple Average—Nonagriculture (%)
MFN Applied (AV-only) Tariff—Coefficient of Variation—All Goods
MFN Applied (AV-only) Tariff—Coefficient of Variation—Agriculture
MFN Applied (AV-only) Tariff—Coefficient of Variation—Nonagriculture
MFN Applied (AV-only) Tariff—Maximum—All Goods (%)
MFN Applied (AV-only) Tariff—Maximum—Agriculture (%)
MFN Applied (AV-only) Tariff—Maximum—Nonagriculture (%)
MFN Applied (AV-only) Tariff—Weighted Average—All Goods (%)
MFN Applied (AV-only) Tariff—Weighted Average—Agriculture (%)
MFN Applied (AV-only) Tariff—Weighted Average—Nonagriculture (%)

Trade Policy—Applied Tariffs (incl. prefs)

Applied Tariff (incl. preferences)—Simple Average—All Goods (%)
Applied Tariff—Simple Average—Agriculture (%)
Applied Tariff—Simple Average—Nonagriculture (%)
Applied Tariff—Coefficient of Variation—All Goods (%)
Applied Tariff—Coefficient of Variation—Agriculture (%)
Applied Tariff—Coefficient of Variation—Nonagriculture (%)
Applied Tariff—Maximum—All Goods (%)
Applied Tariff—Maximum—Agriculture (%)
Applied Tariff—Maximum—Nonagriculture (%)
Applied Tariff—Weighted Average—All Goods (%)
Applied Tariff—Weighted Average—Agriculture (%)
Applied Tariff—Weighted Average—Nonagriculture (%)

Trade Policy—Applied Tariff Escalation

Applied Tariff Escalation (% diff., raw to finished)—All Goods (%)
  Applied Tariff Escalation (% diff., raw to finished)—Agriculture (%)
  Applied Tariff Escalation (% diff., raw to finished)—Nonagriculture (%)
Applied Tariff Escalation (% change, raw to finished)—All Goods (%)
  Applied Tariff Escalation (% change, raw to finished)—Agriculture (%)
  Applied Tariff Escalation (% change, raw to finished)—Nonagriculture (%)

Trade Policy—MFN Duty Free

MFN-0 Import Value (% Total Imports)—All Goods
  MFN-0 Import Value (% Total Imports)—Agriculture
  MFN-0 Import Value (% Total Imports)—Nonagriculture
Share of Tariff Lines with MFN-0—All Goods (%)
  Share of Tariff Lines with MFN-0—Agriculture (%)
  Share of Tariff Lines with MFN-0—Nonagriculture (%)
Customs and Other Import Duties as a % of Imports
Customs and Other Import Duties as a % of Total Revenues

Trade Policy—Peaks, Bounds, and Specific Tariffs

Share of Tariff Lines with Domestic Peaks—All Goods (%)
  Share of Tariff Lines with Domestic Peaks—Agriculture (%)
  Share of Tariff Lines with Domestic Peaks—Nonagriculture (%)
Share of Tariff Lines with International Peaks—All Goods (%)
  Share of Tariff Lines with International Peaks—Agriculture (%)
  Share of Tariff Lines with International Peaks—Nonagriculture (%)
Share of Tariff Lines Bound—All Goods (%)
  Share of Tariff Lines Bound—Agriculture (%)
  Share of Tariff Lines Bound—Nonagriculture (%)
Total Overhang (MFN bound less MFN applied rate)—All Goods (%)
  Total Overhang (MFN bound less MFN applied rate)—Agriculture (%)
  Total Overhang (MFN bound less MFN applied rate)—Nonagriculture (%)
Frequency Ratio of Specific Tariff (% total lines)—All Goods
  Frequency Ratio of Specific Tariff (% total lines)—Agriculture
  Frequency Ratio of Specific Tariff (% total lines)—Nonagriculture

Trade Policy—WTO, GATS, and Other Services

WTO Dispute Ruling (as a defendant)
WTO Notifications Outstanding (Central Registry of Notifications)

WTO Antidumping
WTO Countervailing Duties
WTO Safeguards
GATS Commitments Index (0–100, most liberal) All Service Sectors (12)
- GATS Commitments Index—Market Access (0–100, most liberal)
- GATS Commitments Index—National Treatment (0–100, most liberal)
- GATS Commitments Index—Business Services (0–100, most liberal)
- GATS Commitments Index—Communication Services (0–100, most liberal)
- GATS Commitments Index—Construct/Engineering Services (0–100, most liberal)
- GATS Commitments Index—Distribution Services (0–100, most liberal)
- GATS Commitments Index—Educational Services (0–100, most liberal)
- GATS Commitments Index—Environmental Services (0–100, most liberal)
- GATS Commitments Index—Financial Services (0–100, most liberal)
- GATS Commitments Index—Health/Social Services (0–100, most liberal)
- GATS Commitments Index—Tourism/Travel Services (0–100, most liberal)
- GATS Commitments Index—Recreational/Cultural Services (0–100, most liberal)
- GATS Commitments Index—Transport Services (0–100, most liberal)
- GATS Commitments Index—Other Services (0–100, most liberal)

USITC Banking GATS Commitment Index (0–100, most liberal)
ITU Foreign Participation/Ownership—Telecommunications (%)
ITU Competition Index—Telecommunications Sector (0–2, full competition)

Market Access—TTRI, Applied Tariffs, MFN Duty Free

MA-TTRI (applied tariff incl. prefs)—All Goods
- MA-TTRI (applied tariff incl. prefs)—Agriculture
- MA-TTRI (applied tariff incl. prefs)—Nonagriculture

MA-OTRI (applied tariff incl. prefs + NTMs)—All Goods
- MA-OTRI (applied tariff incl. prefs + NTMs)—Agriculture
- MA-OTRI (applied tariff incl. prefs + NTMs)—Nonagriculture

ROW Applied Tariff (incl. prefs)—Simple Average—All Goods (%)
- ROW Applied Tariff (incl. prefs)—Simple Average—Agriculture (%)
- ROW Applied Tariff (incl. prefs)—Simple Average—Nonagriculture (%)

ROW Applied Tariff (incl. prefs)—Coefficient of Variation—All Goods (%)
  ROW Applied Tariff (incl. prefs)—Coefficient of Variation—Agriculture (%)
  ROW Applied Tariff (incl. prefs)—Coefficient of Variation—Nonagriculture (%)
ROW Applied Tariff (incl. prefs)—Maximum—All Goods (%)
  ROW Applied Tariff (incl. prefs)—Maximum—Agriculture (%)
  ROW Applied Tariff (incl. prefs)—Maximum—Nonagriculture (%)
ROW Applied Tariff (incl. prefs)—Weighted Average—All Goods (%)
  ROW Applied Tariff (incl. prefs)—Weighted Average—Agriculture (%)
  ROW Applied Tariff (incl. prefs)—Weighted Average—Nonagriculture (%)
Real Effective Exchange Rate—(% change, + = appreciation)
MFN-0 Export Value (% in total exports)—All Goods
  MFN-0 Export Value (% in total exports)—Agriculture
  MFN-0 Export Value (% in total exports)—Nonagriculture

Market Access—FTA/CU, Preferences, WTO Complainant

No. of FTAs/CUs—Goods and Services
  No. of FTAs/CUs—Goods
  No. of FTAs/CUs—Services
Share of Trade with FTA/CU Partners—Exports
Share of Trade with FTA/CU Partners—Imports
Preferences (EU + U.S.) Utilization Rate (%, actual/potential value)
  Preferences (EU-only) Utilization Rate (%, actual/potential value)
  Preferences (U.S.-only) Utilization Rate (%, actual/potential value)
Preferences (EU + U.S.) Actual Value (% of exports)
  Preferences (EU-only) Actual Value (% of exports)
  Preferences (U.S.-only) Actual Value (% of exports)
Preferential Exports (EU + U.S.) Take-Up Rate (%)
  Preferential Exports (EU-only) Take-Up Rate (%)
  Preferential Exports (U.S.-only) Take-Up Rate (%)
WTO Dispute Rulings as Complainant

Institutional Environment

Ease of Doing Business—Rank (out of 178, worst)—Same as Institutional Environment Ranking
  Doing Business—Starting a Business Rank
  Doing Business—Closing a Business Rank
  Doing Business—Enforcing Contracts Rank
WGI—Government Effectiveness

WGI—Regulatory Quality
WGI—Rule of Law
WGI—Control of Corruption

Trade Facilitation

LPI—Overall (1–5, best)
  LPI—Efficiency of Customs and Other Border Procedures
  LPI—Quality of Transport and International Transport Infrastructures
  LPI—International Transport Costs
  LPI—Logistics Competence
  LPI—Trackability of Shipments
  LPI—Domestic Transportation Costs
  LPI—Timeliness of Shipments
Doing Business—Trading across Borders Rank (out of 178)
  Doing Business—No. of Documents for Export
  Doing Business—Days for Export
  Doing Business—Cost to Export (US$ per container)
  Doing Business—No. of Documents for Import
  Doing Business—Days for Import
  Doing Business—Cost to Import (US$ per container)
UNCTAD—Liner Shipping Connectivity Index (0 to 100, best)
Telephones (fixed + mobile) per 100 Inhabitants
Average Cost of 3-Minute Call to United States (US$)
Personal Computers per 100 Inhabitants
Internet Users per 100 Inhabitants
Secondary Gross School Enrollment (%)
Tertiary Gross School Enrollment (%)
Total Freight Costs to United States (% of import value)
Air Freight Costs to United States (% of import value)
Air Freight Costs from United States—DHL, 1 lbs
Pump Price for Diesel Fuel (US$ per liter)
Electricity Cost for Industry (US$ per kilowatt hour)

Trade Outcome—Real Growth and Overall Nominal Growth

Real Growth in Total Trade (g+s, %)
  Real Growth in Exports (g+s, %)
    Real Growth in Merchandise Exports (%)
    Real Growth in Services Exports (%)
  Real Growth in Imports (g+s, %)
    Real Growth in Merchandise Imports (%)
    Real Growth in Services Imports (%)
Nominal Growth in Total Trade (g+s, %)

Trade Outcome—Nominal Growth in Exports

Nominal Growth in Exports (g+s, %)
- Nominal Growth in Merchandise Exports (%)
  - Nominal Growth in Agricultural Exports (%)
  - Nominal Growth in Nonagricultural Exports (%)
    - Nominal Growth in Manufacturing Exports (%)
    - Nominal Growth in Mining Exports (%)
- Nominal Growth in Services Exports (%)
  - Nominal Growth in Transport Exports (%)
  - Nominal Growth in Travel Exports (%)
  - Nominal Growth in Other Commercial Services Exports (%)

Trade Outcome—Nominal Growth in Imports

Nominal Growth of Imports (g+s, %)
- Nominal Growth of Merchandise Imports (%)
  - Nominal Growth in Agricultural Imports (%)
  - Nominal Growth in Nonagricultural imports (%)
    - Nominal Growth in Manufacturing Imports (%)
    - Nominal Growth in Mining Imports (%)
- Nominal Growth in Services Imports (%)
  - Nominal Growth in Transport Imports (%)
  - Nominal Growth in Travel Imports (%)
  - Nominal Growth in Other Commercial Services Imports (%)

Trade Outcome—Trade Integration, World Market Share, and Growth and Trade Balance

Trade Integration (total trade as a % of GDP)
Trade Share Growth of World Market (%)
Total Trade Share (g+s) of the World Market
Trade (g+s) Balance (as a % of GDP)
- Merchandise Trade Balance (as a % of GDP)

Trade Outcome—Export Integration

Export Integration (as a % of GDP)
- Merchandise Exports (as a % of GDP)
  - Agricultural Exports (as a % of GDP)
  - Nonagricultural Exports (as a % of GDP)
    - Manufacturing Exports (as a % of GDP)
    - Mining, Fuel, and Other Exports (as a % of GDP)

Services Exports (as a % of GDP)
Transport Exports (as a % of GDP)
Travel Exports (as a % of GDP)
Other Services Exports (as a % of GDP)

Trade Outcome—Import Integration

Import Integration (as a % of GDP)
Merchandise Imports (as a % of GDP)
Agricultural Imports (as a % of GDP)
Nonagricultural Imports (as a % of GDP)
Manufacturing Imports (as a % of GDP)
Mining, Fuel, and Other Imports (as a % of GDP)
Services Imports (as a % of GDP)
Transport Imports (as a % of GDP)
Travel Imports (as a % of GDP)
Other Services Imports (as a % of GDP)

Trade Outcome—Share and Concentration

Merchandise Share in Total Exports (%)
Agricultural Exports Share of Total Exports (g+s, %)
Nonagricultural Exports Share of Total Exports (g+s, %)
Manufacturing Share of Total Exports (g+s, %)
Mining, Fuel, and Other Share of Total Exports (g+s, %)
Services Share in Total Exports (%)
Transport Share of Total Exports (g+s, %)
Travel Share of Total Exports (g+s, %)
Other Services Share of Total Exports (g+s, %)
Share of Top Five Merchandise Exports (as % of total exports)
Export (merchandise) Concentration index
Export (merchandise) Destination Index
Share of Top Five Merchandise Imports (as % of total imports)
Import (merchandise) Concentration Index
Import (merchandise) Destination Index

Trade Outcome—Export Share in the Growth of World Market

Exports Share Growth of the World Market (%)
Merchandise Export Share Growth of World Market (%)
Agricultural Exports Share Growth of World Market (%)
Nonagricultural Exports Share Growth of World Market (%)
Manufacturing Exports Share Growth of World Market (%)
Mining Exports Share Growth of World Market (%)

- Services Exports Share Growth of World Market (%)
  - Transport Services Exports Share Growth of World Market (%)
  - Travel Services Exports Share Growth of World Market (%)
  - Other Services Exports Share Growth of World Market (%)

Trade Outcome—Import Share in the Growth of World Market

- Imports Share Growth of World Market (%)
  - Merchandise Imports Share Growth of World Market (%)
    - Agricultural Imports Share Growth of World Market (%)
    - Nonagricultural imports Share Growth of World Market (%)
      - Manufacturing Imports Share Growth of World Market (%)
      - Mining, Fuel, and Other Imports Share Growth of World Market (%)
  - Services Imports Share Growth of World Market (%)
    - Transport Services Imports Share Growth of World Market (%)
    - Travel Services Imports Share Growth of World Market (%)
    - Other Services Imports Share Growth of World Market (%)

Trade Outcome—Export Share of the World Market (%)

- Exports Share of World Market (%)
  - Merchandise Exports Share of World Market (%)
    - Agricultural Exports Share of World Market (%)
    - Nonagricultural Exports Share of World Market (%)
      - Manufacturing Exports Share of World Market (%)
      - Mining, Fuel, and Other Exports Share of World Market (%)
  - Services Exports Share of World Market (%)
    - Transport Services Exports Share of World Market (%)
    - Travel Services Exports Share of World Market (%)
    - Other Services Exports Share of World Market (%)

Trade Outcome—Import Share of the World Market (%)

- Imports Share of World Market (%)
  - Merchandise Imports Share of World Market (%)
    - Agricultural Imports Share of World Market (%)
    - Nonagricultural Imports Share of World Market (%)
      - Manufacturing Imports Share of World Market (%)
      - Mining, Fuel, and Other Imports Share of World Market (%)
  - Services Imports Share of World Market (%)
    - Transport Services Imports Share of World Market (%)
    - Travel Services Imports Share of World Market (%)
    - Other Services Imports Share of World Market

Trade Outcome—FDI and Remittances

FDI Inflows (as % of GDP)
FDI Inflows (as % of exports)
FDI Inflows (as % of total FDI to Low and Middle Income Countries)
FDI Inflows (as % of total FDI to Low and Middle Income Countries, excluding China and India)

Trade Outcome—Export and Import Products

No. of (merchandise) Products Exported
No. of (merchandise) Products Imported
Top 5 Exports (merchandise) Product List (2005)

Notes

Chapter 1

1. From this point on "countries" will be used to denote both countries and customs territories.

2. When 2007 is not available, then the most recent period shown in the tables and charts in this report is 2006.

3. Some indicators in any given year or time period may have no country coverage (for example, the nontariff measures frequency ratio since 2002). For other indicators in the most recent years, country coverage varies from a minimum of 79 (the production-weighted import tariff) to 202 (2006 rest-of-the-world tariffs), and a maximum of 203 countries (2006 governance indicators) out of a total of 210 countries and territories. In between are indicators for simple tariff averages (with 149–52 countries in 2006 and 2007, respectively), and for aggregate trade outcome (with 152–61 countries in 2006 and 2007, respectively).

4. A detailed description and a full set of indicators and country briefs, with accompanying Trade-At-A-Glance (TAAG) tables with a subset of 80 indicators, can be found at http://www.worldbank.org/wti2008.

5. Tariff and trade indicators by 22 product groups are available in the World Tariff Profiles 2006 and in the (forthcoming by June 2008) World Tariff Profiles 2007, a joint ITC, UNCTAD, and WTO database and publication (available at http://www.wto.org/english/res_e/statis_e/statis_e.htm). Online detailed information by product groups and by tariff line is accessible from the International Trade Centre's Market Analysis Services portal (http://www.intracen.org/mas/). These databases are linked to the WTI database.

6. This indicator is available for 79 countries for which matching tariff and production data are available at the disaggregated level in the Global Trade Analysis Project (GTAP) database.

7. The medium-term goal is to offer WTI Web site users the flexibility to construct weighted averages of the indicators (weighting for example by population, output, or trade share in the world total) for customized analyses of user-defined country groupings.

Chapter 2

1. For a brief discussion of the theoretical and empirical literature supporting the choice and organization of indicators, see the evidence and references mentioned in appendix B to this report and also the various papers cited in World Bank (2001).

2. There may be some differences in precise ranking across individual countries, but generally the countries are ranked similarly within a category. Note that the online WTI database defaults to a particular representative indicator (see appendix B), but users may rank countries by any other indicators or continuation of any five indicators based on user-defined weights.

3. The discussion in this paper refers to applied rather than bound tariffs. There are two indicators in the database that deal with bound tariff rates: the share of tariff lines that have been bound in the WTO and the tariff overhang (bound/applied ratio).

4. See Kee and others (2008) for more details on the TRIs, which use estimated elasticities to calculate the impact of a tariff schedule on a country's imports. These measures are based on actual or current trade patterns and thus do not capture restrictions facing new or potential trade. They also do not take into account domestic subsidies or export taxes. The latest available TRIs were published in May 2008 but were calculated in December–November 2007 and were based mostly on tariff and trade flows for 2006 (see http://go.worldbank.org/C5VQJIV3H0).

5. MFN applied tariffs are the nonpreferential tariffs applicable to all WTO partners per national schedules (as opposed to bound levels at the WTO).

6. An effort managed by the International Trade Centre and funded by the World Bank and other donors is under way to update nontariff measure information for about a dozen countries, but additional funding for increasing country coverage remains to be secured (about US$100,000 per country is required).

7. The spike in the high-income non-OECD applied tariff (including preferences) shown in the second panel of figure 2.2 is driven by an outlier, Bermuda, whose early 2000s average tariff was 173.6 percent (in the UNCTAD Trade Analysis and Information System [TRAINS] database), but whose late 1990s tariff was missing (it is about 30 percent for later periods). Without it, the chart would have displayed a gradual decrease in the protection rate for this country group.

8. In 2005, Madagascar simplified the structure of its duties and taxes on imports, in particular by abolishing a large "import tax" and a small "statistical tax" on imports and consolidating them in its customs tariffs. Thus, the large increase in the WTI tariff-based indicators between the early and the mid-2000s does not represent an increase in protection but a change in the type of protection accorded. In fact, (consolidated) import revenues remained virtually unchanged between 2005 and 2006. For this reason, Madagascar is not included among the 31 countries that raised their tariffs.

9. Each group average is significantly different from that of the rest-of-the-world.

10. Low or no average increases, however, do not reveal whether actual changes on individual products occurred.

11. The production-weighted tariff tends to overstate protection as it takes into account only those tariff lines corresponding to goods produced by the country, which have usually higher tariff rates than the rest of the schedule. It is nonetheless useful to look at alternative measures of protection in order to understand a country's policy stance.

12. Specific tariffs require complex estimation of ad valorem equivalent rates, involving unit prices, to be averaged with the more prevalent ad valorem tariffs. As market conditions change, unit prices change and so does the implied protection afforded by an unchanged specific tariff (to be also reflected in all aggregate measures of tariffs

and often also in the maximum tariff rate), even though no change in tariff policy has occurred.

13. The high variability in the MNA regional average figures stems from a combination of factors. In the early 2000s, Tunisia's negative escalation dominates Jordan's, the only other country in the database. In 2005 and 2007, the inclusion of Egypt (with overall escalation rates of 468 and 603 percent, respectively) trumps the other 7–8 countries' numbers for which such estimates are available. In 2006, the unavailability of Egypt's escalation estimates is responsible for the much lower regional average.

14. The high ratio for the non-OECD high-income group is driven by Bahrain, Kuwait, and the Bahamas.

15. See Mattoo, Stern, and Zanini 2008; World Bank 2008.

16. Each entry by subsector and by mode in the commitment schedule has been graded 1, 0.5, or 0, depending on whether scheduled liberalization commitments are full and unqualified, partial or qualified, or unbound (nil or virtually nil). Such raw scores are then aggregated by subsectors and modes to which specific weights are assigned to reflect their economic importance in the world economy.

17. In fact, countries usually at the top of global competitiveness rankings and whose actual policies and regulations are very open to services trade, like Singapore, Hong Kong (China), and the United Arab Emirates, rank very low using this indicator (26, 23, and 17, respectively), due solely to weak commitments under the GATS.

18. An ongoing project at the World Bank surveying selected services sectors in a number of developing countries (56 in its first pilot phase) will enable the construction of a more comprehensive set of indices of actual services trade restrictiveness, which are expected to be included in the next (late 2008) update of the online WTI database.

19. In banking, both the subsector index of the GATS commitment index discussed and a sector-specific index constructed independently by the U.S.I.T.C show that the LAC region and many EU member countries have the lowest commitments (with the Baltic states at the bottom). The EAP region, Japan, ECA countries that have not acceded to the EU, and upper-middle-income countries have the highest commitments. Within such groups, however, there are large differences. For instance, in the LAC region, Costa Rica is the country most closed to foreign providers of banking services, while Mexico and Uruguay are fully open to foreign banking services providers. In the EAP region, China is the most restrictive market for banking services providers, while Indonesia, Malaysia, and Vietnam in contrast are fully open.

20. The data on preferences are partial since South–South agreements are not fully covered in the TRAINS or ITC databases. Neither do they fully include preferences granted by all the high-income countries, although recent years' preferences are covered better than in the past and EU and U.S. preferences are well covered. Better quality of the data on preferences in the last two years may explain some of the market access improvements noted in this section (see also footnotes 22, 24).

21. See Kee, Nicita, and Olarreaga (2008) for more details on this indicator. The MA-TTRI computes a single "uniform tariff" equivalent of all tariffs facing the given country's exports, using estimated elasticities to calculate the impact on trade flows. It is calculated using bilateral trade and preferential tariffs (and assuming their full utilization) as recorded in the TRAINS database. It is also based on actual or current trade patterns, so it is a static measure and does not capture the dynamic dimension such as new exports that may result from policy change. Just as for the TRIs, a version including nontariff measures (the MA-OTRI, based on the latest available information for 2001 or earlier) is available in the WTI database (see http://go.worldbank.org/C5VQJIV3H0 for more details on the World Bank TRIs).

22. The LAC region's relative standing is negatively affected by the lack of updated information on FTA preferences for the Central American countries (for more details see footnote 24) in the database used to calculate market access restrictiveness indicators. Note however that the WTI estimates discussed below on the value of U.S. preferences rely on national data for 2006 and thus do reflect the post-CAFTA (Central America Free Trade Agreement) preferences, although their impact on trade flows will become apparent only in later years.

23. Between 2005 and 2006, the rest-of-the-world trade-weighted applied tariffs (including preferences) for Brazil went from 7.8 to 3.8 percent for all goods and from 19.9 to 12.8 percent for agriculture; for Argentina they dropped from 10.5 to 4.8 percent for all goods, and from 6.8 to 3 percent for agriculture.

24. After the DR-CAFTA with the United States became effective in April 2006, the high effective pre-CAFTA preferential tariffs that the United States imposed on Central American exports of cotton products were reduced significantly, in many cases to zero, but the TRAINS database (and thus also the various restrictiveness indicators that rely on this database) still reflect for 2006 the higher, pre-CAFTA preferential tariffs. Thus, Central American countries' (and the LAC region's) relative standing on market access is expected to improve once the 2007 applied tariffs will be taken into account in the next WTI update. The WTI estimates discussed below of the value of U.S. preferences rely on national data for 2006 and thus do reflect the post-CAFTA preferences, although their impact on trade flows is expected to become visible only in later years.

25. Note that the criterion used excludes China and Thailand, both large exporters of garments and textiles from the rest-of-the-world point of view, as the focus here is on the economic importance of this product category for the exporting country, not the global economy.

26. While such partial correlations do not help identify causality or the relative importance of one variable to the determination of the other when many factors are contributing to the final outcome, these patterns suggest that enhanced unilateral preferences aimed at improved market access may help trade and export growth in the beneficiary countries.

27. Note that some trade flows with FTA/CU partners may still be subject to some tariffs, depending on the degree of coverage of each FTA/CU arrangement, and so the WTI indicator should be interpreted as the potential share of trade under FTA/CU arrangements that could be subject to zero duties. Also, the share of trade occurring with FTA/CU partners cannot be simply added to the MFN-0 share to get an overall picture of trade occurring duty free, since some of the trade recorded as FTA/CU trade may well take place under MFN-0 as well.

28. LDCs are 50 of the poorest countries that have a special status in the WTO and enjoy special tariff preferences from most OECD countries. They are so classified by UNCTAD according to three criteria: low income, human resource scarcity, and economic vulnerability.

29. The value of potential preferences is the difference between the MFN duty and the potential preferential duty (regardless of whether the trade was subjected or not in reality to that preferential duty) times eligible exports. The actual value of preferences is the difference between the MFN duties on those exports that actually entered under preferences and the duties that have been actually paid using trade preferences granted to that country times actual exports. For ease of comparison across the countries, they are both expressed as a percentage of a beneficiary country's

total exports to the relevant preference-granting country(ies) (the United States and the EU for this WTI 2008 round).

30. Brenton and Ikezuki (2005) reach the same conclusion on their work on Africa and LDCs. This paper makes the same point but at the global level. The tariff savings are small, either because the share of exports for which preferences granted is small, or for which preferences claimed is small, for example, due to restrictive rules of origin, or because the preferential margins (difference between MFN and preferential tariffs) are small or in some cases nil (for example, in case of MFN-0).

31. Appendix B has a discussion of the theoretical and empirical literature that links the institutional environment to trade outcomes. There is a vast literature on how good institutional environments support trade. See also World Bank 2002.

32. The 2008 Ease of Doing Business findings were released in October 2007, based on underlying surveys conducted in the spring of 2007.

33. See the Worldwide Governance Indicators (WGI) at http://www.govindicators.org. These composite meta-indicators refer to surveys conducted and indicators produced by various organizations in 2006. The value of these meta-indices ranges from −2.5 to 2.5 with a higher value corresponding to better governance.

34. For empirical work linking overall trade and governance indicators in the context of gravity models see Islam and Reshef (2006); the paper also discusses other empirical research in this area.

35. Because of the strong relationship between income and better governance, these relationships were also examined controlling for income per capita. Better governance is associated with a greater share of manufacturing and services in exports, lower real export growth volatility, and higher real export growth.

36. This section draws largely from World Bank (2007b) and the LPI dataset available at http://www.worldbank.org/lpi.

37. The LPI and its indicators have been constructed on the basis of the information gathered from a 2006 worldwide survey of logistics companies responsible for moving goods—the multinational freight forwarders and main express carriers. More than 5,000 individual country evaluations were used to prepare the LPI, which covers 150 countries. The value of the index ranges from 1 to 5 for each component; 1 is the lowest score and 5 is the maximum score.

Chapter 3

1. The 2007 world trade growth rate is not significantly different in statistical terms from rates in the early 2000s and late 2006, and neither is the export growth rate compared to all previous three periods. For 2000–04, the trade growth rate in developing countries (8.7 percent) was significantly different from that in high-income countries (6.7 percent). The different growth rates between the 1995–99 and the 2005–06 periods are not significant.

2. Intra-EU trade is included in the calculation of total trade outcomes for each EU country.

3. The average trade integration average for the SAS region has been calculated by assuming for 2007 the same very high share of trade over GDP (176 percent in 2006, much higher than the rest of the region) for the Maldives, a small country with no available data yet for 2007. Without such adjustment, the average regional share of trade would show a precipitous drop between 2006 and 2007.

4. In a study of trade in SSA, Rodrik (1998) finds that "country size (as measured by population) and per-capita income are two very strong determinants of the openness of an economy. Smaller and richer countries trade more (as a share of their GDP). The estimated coefficients imply that a doubling of population decreases trade by 16% of GDP while a doubling of per-capita income increases it by 12%." Other papers also find a positive correlation between openness and income.

5. Benin, Uganda, Niger, Sudan, Rwanda, Burkina Faso, and the Central African Republic.

6. Trade shares of GDP in high-income and small island countries range between 29–474 percent and 43–326 percent, respectively, and average 121 and 120 percent, respectively.

7. Note that these types of concentration indicators tend to be quite vulnerable to cyclical fluctuations in relative prices, in a way that commodity price rises make commodity exporters look more concentrated.

8. Recent research has shown that diversification is not monotonically increasing with income levels and that past a certain level of income, countries show a tendency to reconcentrate their exports (see Klinger and Lederman 2004 or Carrère et al. 2007).

9. The data do not, however, provide evidence that export concentration is correlated with the volatility of (nominal) export revenues when compared across countries.

10. See Jansen (2004) for a survey of the literature and opposite findings based on his analysis of changes in terms of trade and export earnings. He concludes that "the more concentrated are the exports, the more volatile a country's terms of trade are likely to be, in particular if exports are concentrated in commodities. Terms of trade volatility, in turn, affects income volatility positively and so does openness."

11. Export concentration values for both SSA (most concentrated) and ECA (least concentrated developing country region) are significantly different from their rest-of-the-world counterparts in all time periods.

12. Intra-EU trade is included.

13. The index is calculated similarly to the export product concentration index.

Chapter 4

1. Many countries in the EAP region are small islands for which a number of trade indicators are unavailable.

2. In March of this year, the Slovak Republic announced it would change from borrower to aid provider status in the World Bank Group.

3. For instance, Chile ranks 32nd (out of 151) in trade facilitation, behind only high-income countries and a handful of developing ones such as South Africa, Malaysia, China, and Thailand.

4. See however the qualifications in footnotes 20, 22, and 24 in chapter 2 and regarding post-CAFTA market access that will be reflected in the next update of the WTI database and other weaknesses of date or preference.

5. And possibly partly reflecting the impact of high tariffs on imports.

6. However, information in the international databases about these nontariff measures has not been updated to reflect changes since 2001.

7. In 2005–06, Sri Lanka claimed less than half (48 percent) of the preferences that it could have taken advantage of, compared with 64 percent for Bangladesh.

8. Economic growth in SSA accelerated from 5.7 percent in 2005–06 to 6.1 percent in 2007, with a robust 8.1 percent among oil exporters (notably Angola and Sudan) and 5.3 percent among oil-importing countries. Trade with nontraditional partners, particularly in Asia, has increased in recent years (Broadman 2007). By 2004 the Asian share of African exports (27 percent) was on par with the EU's (32 percent) and the United States' (29 percent). In particular, Africa's exports to China grew by 48 percent annually during 1999–2004, compared to 14 percent for India. However, most of these exports come from five oil and mineral producing countries (85 percent).

Appendix B

1. For instance, Bolaky and Freund (2004) find that increased openness does not stimulate growth in economies with high regulation. There is some evidence that openness may even hamper growth in economies with excessive regulation. Research by de Groot and others (2004) highlights institutional quality as an explicit determinant of bilateral trade, recognizing that the performance of institutions can have a significant impact on transaction costs, which in turn affect trade. Various contributions in the literature explain the value of institutions to international trade through their impact on information asymmetries, property rights, and contract enforcement. Anderson and Marcouillier (2002) develop a model in which corruption and poor contract enforcement reduce trade between countries. Levchenko (2004) models institutional differences as a source of comparative advantage and shows, among other things, that developing countries may not gain from trade due to the poor quality of their institutions and that factor prices may diverge when institutional quality varies among trading partners. Souva and Rowan (2005) examine the relative importance of political versus market institutions for trade and conclude that it is the latter that counts. Islam and Reshef (2006) look at the impact of institutional quality versus differences in institutional design on trade values.

2. For instance, Hausman, Lee, and Subramanian (2005) find that logistics performance has a statistically significant relationship with the level of bilateral trade. Many empirical studies have examined the effect of transport costs on trade flows. Notably, Limão and Venables (2001) find a robust statistical link between transport costs and international trade flows. They also find a clear link between the quality of infrastructure and transport costs—and thus conclude that infrastructure investments are important for export-led economic growth. Other studies find that differences in logistics performance are driven only in part by poor quality of physical infrastructure services such as road, rail, waterways, port services, and telecommunications (Subramanian and Arnold 2001). Instead, the inadequacies often are caused by (nontariff) policy and institutional constraints—such as procedural red tape, inadequate enforcement of contracts, poor definition and enforcement of rules of engagement, delays in customs, delays at ports and border crossings, pilferage in transit, and highly restrictive protocols on movement of cargo.

3. Principal component analysis (PCA) is a statistical method to reduce multidimensional datasets to lower dimensions to find patterns. PCA summarizes a p-dimensional dataset into a smaller number, q, of dimensions while preserving the variation in the data to the maximum extent possible. The q new dimensions are constructed such that (i) they are linear combinations of the original variables, (ii) they are independent of each other, and (iii) each dimension captures a successively

smaller amount of the total variation in the data. The p original variables are combined into q linear combinations, which form the new principal components of the system. A standardized linear combination Z_i of data vector, $X_i = (X_{11}, X_{12}, \ldots, X_{1p})$ of length p is defined as: $Z_i = w_i^t X_i$; where the sum of the squares of the weights, w_i^t is equal 1. PCA chooses the weights by determining the linear combination of all p variables in the transformed dataset that maximizes the variance of the data. Each principal component provides a set of factor loadings of the indicators, which correspond to their importance for the component.

Appendix C

1. These indices are grounded in the same transparent and quantitative scoring methodology used also (with minor differences) by WBI for producing the index of overall services trade commitments across all services sectors (see section on services trade in chapter 2).

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Trees*	Solid Waste	Water	Net Greenhouse Gases	Electricity
10	594	3590	28,262	73
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"The *World Trade Indicators* provides an impressive array of information that policy makers can use as a benchmark to measure their country's progress as well as its position with respect to other countries. It should also provide a good basis for informed policy making, including negotiations, and thus provide much-needed information for small and developing countries with limited resources to develop such a comprehensive database."

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Director, Institute for International Economic Policy
Elliott School of International Affairs, George Washington University, Washington, DC, United States

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