

# Measures of Restrictions on Inward Foreign Direct Investment in the Service Sector for Developing Countries

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Fourth draft, March 8, 2006

Abstract. This paper quantifies and analyzes measures of restrictions on inward foreign direct investment (FDI) in the service sector for developing countries, using a methodology developed in Golub (2003) in a study of OECD countries. Several different types of restrictions are considered: limitations on foreign ownership, screening or notification procedures, management restrictions, and operational restrictions. These restrictions on FDI are computed for a large number of subsectors and then aggregated into a single measure for the service sector as a whole in each country. The sample includes 50 developing countries in Latin America, Asia, Africa, and Europe.

Notwithstanding the world-wide trend towards liberalization of restrictions since the early 1990s, there remain substantial disparities between regions and individual countries in the severity of observable restrictions on inward FDI in services. The paper finds that Latin America and Central and Eastern Europe generally have low levels of restrictions, whereas the highest levels of restrictions are found in East Asia and the Middle East. Inward FDI in services is strongly negatively correlated with the severity of restrictions.

It should be stressed that the study is limited to restrictions discriminating between foreign and domestic investors and does not take into account policies impinging on all investors such as product or labour market regulations. The results should also be interpreted carefully in light of the frequent changes and complex nature of national policies towards FDI, rendering classification and quantification challenging.

Despite these limitations, this study contains a more comprehensive and up-to-date compilation, quantification and analysis of restrictions on FDI in services in developing countries than prior studies, many of which have tended to rely on the General Agreement on Trade in Services (GATS) schedules for information. A large number of sources were used in addition to GATS, and the results show that the GATS schedules by themselves are poor guides to the stance of policies towards FDI for most countries and generally underestimate the extent to which countries have opened up their service industries to FDI. This paper provides a heretofore-unavailable systematic and internationally-comparable set of indicators on policies towards FDI in

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services that will be of value to policymakers concerned with international negotiations on FDI and researchers studying FDI.

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## I Introduction

Since the early 1990s developing countries have increasingly liberalized, privatized and deregulated their service industries, with a view towards greater participation in the global economy. More welcoming policies towards foreign direct investment (FDI) have been a prominent component of this trend. National policies towards FDI typically feature measures aimed at both attracting and discouraging inflows. Policies to attract FDI such as tax breaks, favourable regulatory treatment and subsidies of various sorts are usually focused on manufacturing.<sup>3</sup> Meanwhile, policies restricting inward FDI are mainly concentrated in the service sector.<sup>4</sup> This paper focuses on the latter.

Services now constitute the largest sector for FDI flows, at about two thirds of FDI inflows worldwide, and about 55 percent of FDI inflows into developing countries.<sup>5</sup> Yet, very little systematic quantification and analysis is available on the policies towards FDI in services. The most comprehensive analysis to date of restrictions on inward FDI in services was an analysis of OECD countries (Golub, 2003). The present paper uses a similar methodology but extends the scope to developing countries.

Countries welcome FDI because of its potential benefits for employment creation, capital accumulation, transfer of technology, improved service and increased competition. Nevertheless, inward FDI can also impose costs in the form of displacement of local firms and workers and possible monopolistic practices and there can be valid economic rationales for restricting inward FDI. There may also be non-economic reasons for limiting foreign ownership and control, relating to national security or economic nationalism. Services are generally subject to more restrictions than manufacturing and natural resources.<sup>6</sup> For example, such industries as telecommunications, banking, transportation, and electricity provision are often viewed by host countries as strategic or sensitive.<sup>7</sup> These sectors are typically subject to economic or prudential regulation, because of tendencies towards natural monopoly or other market failures, although such market failures do not in themselves provide a clear-cut rationale for discrimination between local and foreign investors. Infant “entrepreneurship” arguments can be adduced in favor of discrimination against foreign investors. This paper does not attempt to assess the welfare effects of these policies or make any recommendations regarding policy changes.<sup>8</sup> Its goal is mostly limited to assembling and analyzing a database on policies towards FDI in services. The paper also provides a preliminary of the correlation analysis of FDI flows with these policies.

There are a number of limitations of the present study. First, policies towards FDI are diverse and complex, and therefore not easily quantified even when they are known. Second,

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<sup>3</sup> See Moran et al, eds (2005).

<sup>4</sup> See Golub (2003), Sauve and Steinfatt (2000), and Hoekman (1995).

<sup>5</sup> Based on data from 1999-2002. See UNCTAD (2003, Table A.I.4), UNCTAD (2004 Figure A.I.1, Tables A.I.18 and A.I.20).

<sup>6</sup> Petroleum is also frequently highly restricted in developing countries.

<sup>7</sup> See UNCTC (1989, p. 132-135) and UNCTAD (2004) for a discussion of this issue.

<sup>8</sup> UNCTAD (2003, Ch. 5) provides a discussion of the arguments for and against selective limitations on inward FDI.

descriptions of these policies are not readily available and must be sought in a variety of sources, which sometimes provide conflicting or incomplete information. Third, policies are not static; on the contrary, governments have frequently altered policies in recent years. It is therefore important but not always easy to obtain up-to-date information. Fourth, the focus here is on policies that discriminate between foreign and domestic investors, i.e., deviations from “national treatment.” Regulations of labour and product markets and other policies that apply equally to foreign and domestic investors are not considered here, with the exception of State monopolies. For example, domestic content requirements, price ceilings, prudential regulations and other barriers to entry are not addressed. Fifth, this study is limited to overt restrictions on FDI, mostly ignoring any informal private or official efforts to tilt the playing field in favour of domestic over foreign firms. Sixth, the breadth and degree of enforcement may not always be easily inferred from the descriptions of the statutes. Seventh, this study does not take into account “positive” discrimination towards foreign investors such as special tax breaks.<sup>9</sup> Despite these limitations, it is hoped that this study will shed some new light on the current state of policies in a wide range of developing countries, on which there has been heretofore little systematic classification and analysis.

Unlike international trade where international comparisons of tariff and non-tariff barriers are widely available, there have been few previous efforts to quantify and systematically compare national policies towards FDI. Yet, summary indicators of the stance of policy towards FDI are just as important as measures of trade barriers, given the prominence of FDI in the world economy and the policy debates surrounding FDI. Both policymakers and researchers stand to benefit from the use of the indicators presented here. The first step in any international negotiations related to FDI involves improved information on policies towards FDI.<sup>10</sup> The influential knowledge-capital model of FDI suggests that restrictions on FDI are an important variable for inclusion in empirical analysis. In econometric tests of FDI, researchers have sometimes resorted to measures based on surveys of investor opinion, rather than objective measures of openness to FDI, but the reliability of these subjective measures is open to question.<sup>11</sup>

This study contains the most comprehensive and up-to-date compilation and analysis of restrictions on inward FDI. Given the difficulties in classifying and ranking the various restrictions, some studies (such as Sauv e and Steinfatt, 2000 and Hoekman, 1995) are limited to counting the number of restrictions. While this has the advantages of simplicity and lack of arbitrariness, some restrictions are bound to be more important than others. For example, a ban on foreign ownership is much more restrictive than a screening or reporting requirement. It therefore seems preferable to attempt to weight different restrictions according to their significance, even though such a procedure surely brings in arbitrary judgements and errors as well.

A number of studies of restrictions on FDI in services (Hoekman, 1995; Pacific Economic Cooperation Council, 1995) use the GATS commitments related to mode 3 (commercial presence) as their primary data source. GATS commitments are made in the form of

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<sup>9</sup> As such positive discrimination is more common in manufacturing than in services, this is not a major problem in this study.

<sup>10</sup> See Graham (2000), Robertson (2002), Sauve and Wilkie (2000) for discussion of international agreements on investment.

<sup>11</sup> See Markusen and Maskus (2001) for a survey.

“positive” lists, i.e., they represent official commitments to open markets. This is in contrast to “negative” lists of exceptions to liberalization.<sup>12</sup> A problem with the GATS positive lists is that the absence of a positive commitment in some sector does not necessarily imply a restriction. A country may simply have chosen not to list this sector in its schedule to retain policy flexibility. Or, if the sector is restricted, GATS may be silent on the nature of the restriction. Also, the current GATS schedules date from around 2000 and may not adequately capture recent changes at the national level.

The Australian Productivity Commission and affiliated researchers carried out a number of sectoral studies of impediments to trade in services: telecommunications (Warren 2001), banking (McGuire and Schuele 2001), maritime transport (McGuire et al 2001), education (Kemp 2001), distribution (Kalirajan 2000) and professional services (Nguyen-Hong 2000). These studies focus on all modes of service delivery rather than FDI per se, however, and many of them rely primarily on the GATS, with the related limitations noted above.

Kobrin (2005) used the UNCTAD data set on national policy changes to show that liberalization efforts greatly outnumber increased restrictions in the 1992-2001 period. However, UNCTAD's database provides no information about the level of restrictions, only the number and nature of changes that are observed in different years. Hardin and Holmes (1997, 2002) provide a comprehensive approach to barriers to inward FDI but cover only a limited number of countries. Golub (2003) adopted a variant of Hardin and Holmes' approach in a study of restrictions on inward FDI for most OECD studies, and the present study extends this methodology to a large number of developing countries for the first time. The GATS schedules are only one of a number of data sources used, and the results confirm that reliance on the GATS schedules alone provides an incomplete understanding of the pattern of policies towards inward FDI.

## **II. Methodology<sup>13</sup>**

The purpose of this paper is to obtain summary measures of the policies discriminating between foreign and domestic investors by scoring particular policies and aggregating them into a country total. There are several issues involved in computing the restriction scores. A classification of various types of restrictions, a choice of industries and a system of weighting are needed.

### *Classification and scoring of policies*

The approach draws heavily on Golub (2003), which in turn was inspired by Hardin and Holmes (1997, 2002). Restrictions can be separated into those affecting market entry and those affecting post-entry operations.<sup>14</sup> The former is emphasized here, given the predominance and

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<sup>12</sup> A positive list consists of a set of industries open to inward FDI, with all others presumed closed. A negative list consists of an explicit set of reservations or exceptions from openness to FDI, with all other industries presumed to be open to inward FDI.

<sup>13</sup> This section draws on Golub (2003).

<sup>14</sup> See UNCTAD 2003, Chapter 5 for a discussion of the distinction between pre- and post-entry national treatment.

importance of policies restricting entry. As UNCTAD (2003, Chapter 5) points out, post-entry national treatment is much more widely accepted and institutionalized than the right of establishment.

Restrictions of entry can take the form of limitations on foreign ownership and screening requirements. Ownership restrictions specify permissible maximum foreign equity participation, ranging from a complete ban on foreign holdings to allowing 100 percent foreign ownership. Usually, ownership limitations are applicable to a particular industry. Screening requirements, on the other hand, often apply to all sectors. Screening can vary widely in its stringency, from routine notification and automatic approval to a national-interest test where the foreign investor has to make a case for entry rather than the government having to justify denying entry. Post-entry operational discrimination against foreign-owned firms is more diverse. In the service sector, the main such restrictions are stipulations regarding the nationality and citizenship of managers or board members, limits to temporary entry of expatriate personnel, and other nationality requirements for staff. Occasionally, foreign firms face higher taxes and other charges than domestic firms.<sup>15</sup> In transportation, cabotage is often restricted to domestically-owned firms.

As noted above, the focus is on departures from national treatment rather than regulatory barriers hampering market access for both domestic and foreign firms. An exception is made for State monopoly or near-monopoly, however, as government monopoly is in effect a *de facto* ban on FDI. Industries reserved for the State are scored as though ownership is banned. Where State ownership was determined to be greater than 50 percent in key industries such as telecommunications, electricity and transport, a partial ownership restriction was imputed.<sup>16</sup>

As in Golub (2003), overall restrictiveness is measured on a 0-1 scale, with 0 representing full openness and 1 a *de facto* or actual prohibition of FDI. Table 1 presents the weights, using the three types of restrictions: ownership, screening, and post-entry operational. Given their evident importance, ownership restrictions receive a substantial weight. In the case of a ban on foreign ownership, other restrictions become irrelevant.<sup>17</sup> The ownership scores in Table

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<sup>15</sup> In the case of manufacturing, as noted in the introduction, policies sometimes discriminate in favour rather than against foreign-owned firms, e.g., in the form of preferential provision of infrastructure and tax credits.

<sup>16</sup> Data availability on State ownership is limited. In sectors such as education and health, the State typically controls much of the industry but there is almost no information available, and consequently State ownership was ignored in the scoring. For other industries, notably telecoms and especially electricity, where more data on State ownership are available, the restriction score was calculated as follows:

<u>State ownership share</u>	<u>score</u>
State monopoly	1.0
Privatization underway	0.6
90 per cent or more	0.4
75-90 per cent	0.2
Majority	0.1

These scores are intended to reflect the fact that a State monopoly is equivalent to a ban on foreign ownership, but substantial State ownership does not necessarily preclude increased foreign ownership in the future. Thus current large State ownership shares may be consistent with large new greenfield FDI or even mergers and acquisitions if privatization is underway and no other restrictions on foreign ownership

1 are constructed so as to capture non-linearities in ownership restrictions as well as the inverse relationship between permissible foreign equity share and restrictiveness. A complete ban on ownership is much more restrictive than allowing even a small foreign shareholding. Also, allowing majority foreign ownership (51 percent foreign equity) is considerably less restrictive than a limitation to 49 percent foreign equity or less.

Screening is perhaps most subject to ambiguity in determining the extent of restrictiveness, as the extent of enforcement or interpretation of approval procedures is difficult to determine from the statutes. Clearly, however, simple notification is less restrictive than an approval requirement. An effort was made to determine whether approval is generally granted, in which case the score is 0.1 or is subject to a national-interest test in which case the score is 0.2.

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apply. These scores are therefore intended to roughly capture the extent to which large state ownership in effect impedes foreign participation.

<sup>17</sup>The index is capped at 1. As may be inferred from Table 1, it is possible that the component restriction scores could sum to up to more than 1 even if foreign equity is not banned, without the cap.

**Table 1: FDI restriction scores**

<b>Foreign Ownership</b>	
No foreign equity allowed	1
1 to 19 % foreign equity allowed	0.6
20-34% foreign equity allowed	0.5
35-49 % foreign equity allowed	0.4
50-74% foreign equity allowed	0.2
75-99% foreign equity allowed	0.1
<b>Screening and Approval</b>	
Investor must show economic benefits	0.2
Approval unless contrary to national interest	0.1
Notification (pre or post)	0.05
<b>Operational Restrictions</b>	
Board of directors/Managers	
majority must be nationals or residents	0.1
at least 1 must be national or resident	0.05
Movement of people	
less than one year	0.1
one to two years	0.05
three to four years	0.025
Other Operational Restrictions	
Labor market or other restrictions	up to 0.1
<b>Total (capped at 1.0)</b>	<b>Between 0 and 1</b>

Source: UNCTAD

**Industries and weights.** Given that restrictions are often specific to a particular industry, a high level of disaggregation is necessary. The list of industries is shown in Table 2.

**Table 2: Service industries and sub-industries covered**

<b>Business services</b>
Legal
Accounting
Computer and related
R&D
<b>Communication services</b>
Fixed line telecommunication
Mobile telecommunication
Audiovisual
<b>Construction services</b>
<b>Distribution services</b>
Wholesale trade
Retail trade
<b>Education services</b>
<b>Electricity (generation, distribution)</b>
<b>Environmental services</b>
<b>Financial services</b>
Insurance
Banking
<b>Health services</b>
<b>Tourism services</b>
Hotel and restaurants
Travel agencies and tour operators
<b>Transport services</b>
International maritime
Domestic maritime
Domestic air
International air
Railway

Source: UNCTAD

While the industry-wise scores are of interest, the main objective is to aggregate them into a national composite score. Various alternative weights were considered, including FDI and GDP weights. FDI-based weights are clearly pertinent, but use of actual FDI flows raises a problem of endogeneity: highly restricted sectors may experience less FDI and hence receive too low a weight. An alternative is to use GDP weights, although some service sectors with relatively large shares of GDP are subject to very little FDI. See Table 3 for the weights in the two cases. These GDP weights are used as the baseline with some comparisons to the FDI weights provided. As shown below, the choice of weights is of little importance in most cases.

**Table 3: Alternative industrial weights**

<b>Service industry</b>	<b>GDP**</b>	<b>FDI*</b>
Business	0.11	0.28
Communication	0.09	0.13
Construction	0.08	0.02
Distribution	0.27	0.15
Education	0.01	0.02
Electricity	0.04	0.09
Environmental	0.05	0.00
Finance	0.11	0.25
Health	0.10	0.00
Tourism	0.06	0.02
Transport	0.07	0.04
All services	1.00	1.00

*Source:* UNCTAD

\*FDI weights constructed from 1999-2002 inflows into developing countries, based on sectoral data in UNCTAD (2003, 2004).

\*\*GDP weights based on GDP for developing countries provided by UNCTAD, supplemented by United States GDP, from the OECD 2004 STAN database.

**Countries.** This study covers 50 countries in Latin America, Asia, Africa, and Central and Eastern Europe. The choice of countries was determined largely by data availability, notably whether they responded to the UNCTAD survey designed for this study and inclusion in the other sources described in Annex 1.

**Table 4: Country coverage, by region**

<b>Africa</b>	<b>Asia</b>	<b>Latin America and the Caribbean</b>	<b>Europe</b>
<b>North Africa</b>	<b>West Asia</b>	<b>South America</b>	<b>Central and Eastern Europe</b>
Algeria Egypt Morocco Tunisia	Qatar Saudi Arabia Turkey	Argentina Bolivia Brazil Chile  Colombia Ecuador Paraguay Peru Uruguay Venezuela	Czech Republic Hungary Poland Romania Russian Federation Slovenia
<b>Sub-Saharan Africa</b>	<b>South, East and South-East Asia</b>	<b>Central America and the Caribbean</b>	
Ethiopia Ghana Kenya Mauritius Mozambique Nigeria Senegal South Africa Tanzania, United Rep. of Uganda	China India Indonesia Korea, Rep. of Malaysia Mongolia Pakistan Philippines  Sri Lanka Thailand	Costa Rica Dominican Rep El Salvador Guatemala Jamaica Mexico Trinidad-Tobago	

Source: UNCTAD

**Data sources.** There is no comprehensive source of information on national FDI policies. For the purposes of gathering information for this study, a questionnaire was prepared and distributed by the UNCTAD secretariat to member countries. However, a number of countries did not respond to the questionnaire and many responses were incomplete or unclear. Therefore, a major effort was made to consult a wide range of other sources, from UNCTAD, OECD, as well as other sources (see Annex 1).

Systematic classification and quantification of FDI restrictions is complicated due to the disparate nature and inconsistent reporting of restrictions across countries. It may be difficult to determine the exact nature and incidence of a particular restriction without detailed knowledge of

a country's productive structure and regulatory environment. There are occasional inconsistencies in some of the different sources, and it is possible that some recent policy changes are not reflected in the calculations. It is also possible that some countries are more forthcoming than others in self-reporting their restrictions. It could then be that more transparent countries receive higher scores, not because they are in fact more restrictive, but because they are more complete in their reporting.

### III. Results

Despite efforts to rely on multiple sources and objective reports, there is an unavoidable element of arbitrariness and subjectivity to the scoring. Given that this study covers 50 countries, 11 industries, and 18 sub-industries, there are numerous instances requiring judgements about the relative severity of restrictions. There is no international agreement on standardized reporting of policies towards FDI in services, with the partial exception of the GATS schedules. It can be argued that the restriction scores for the services sector as a whole may be more accurate than the scores for individual industries, insofar as errors the latter may be smoothed out in the overall score. The results should be interpreted as ball-park estimates rather than precise and definitive findings.

Examination of the statutes reveals that restrictions on inward FDI came down dramatically in the 1990s in most countries. In a few instances, however, more restrictive measures have been implemented recently, e.g., in Argentina and Kenya, but the general trend towards liberalization noted is clear (Kobrin, 2005; UNCTAD, 2005). Nevertheless substantial *de jure* or *de facto* barriers to inward FDI remain.

#### III.1. Overall Results

Table 5 presents the summary results by principal industry and for the service sector as a whole, using the GDP weights. Annex Table A4 presents the sub-industry details. Figure 1 shows the overall scores in ascending order of restrictiveness, as well as the breakdown of the overall national score into the three main types of restriction: ownership limits, screening, and operational barriers.

The total services restrictions vary considerably across countries from a low of under 0.1 in the case of the Czech Republic and Bolivia to more than 0.6 in Ethiopia, the Philippines, Indonesia and Saudi Arabia. Ownership limits account for the bulk of the restriction score in most countries, especially those with higher scores, i.e., the variation across countries are primarily explained by differences in ownership restrictions<sup>18</sup>. For example, in countries like Saudi Arabia, Ethiopia and several Asian countries, a large number of service industries are subject to

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<sup>18</sup> Recall that State ownership is considered a *de facto* restriction in addition to limits on foreign ownership *per se*.

ownership restrictions. Annex Table A-2 provides a listing of ownership restrictions by industry and country.

**Table 5: Summary results: Restrictions by industry, 2004 or latest available year**

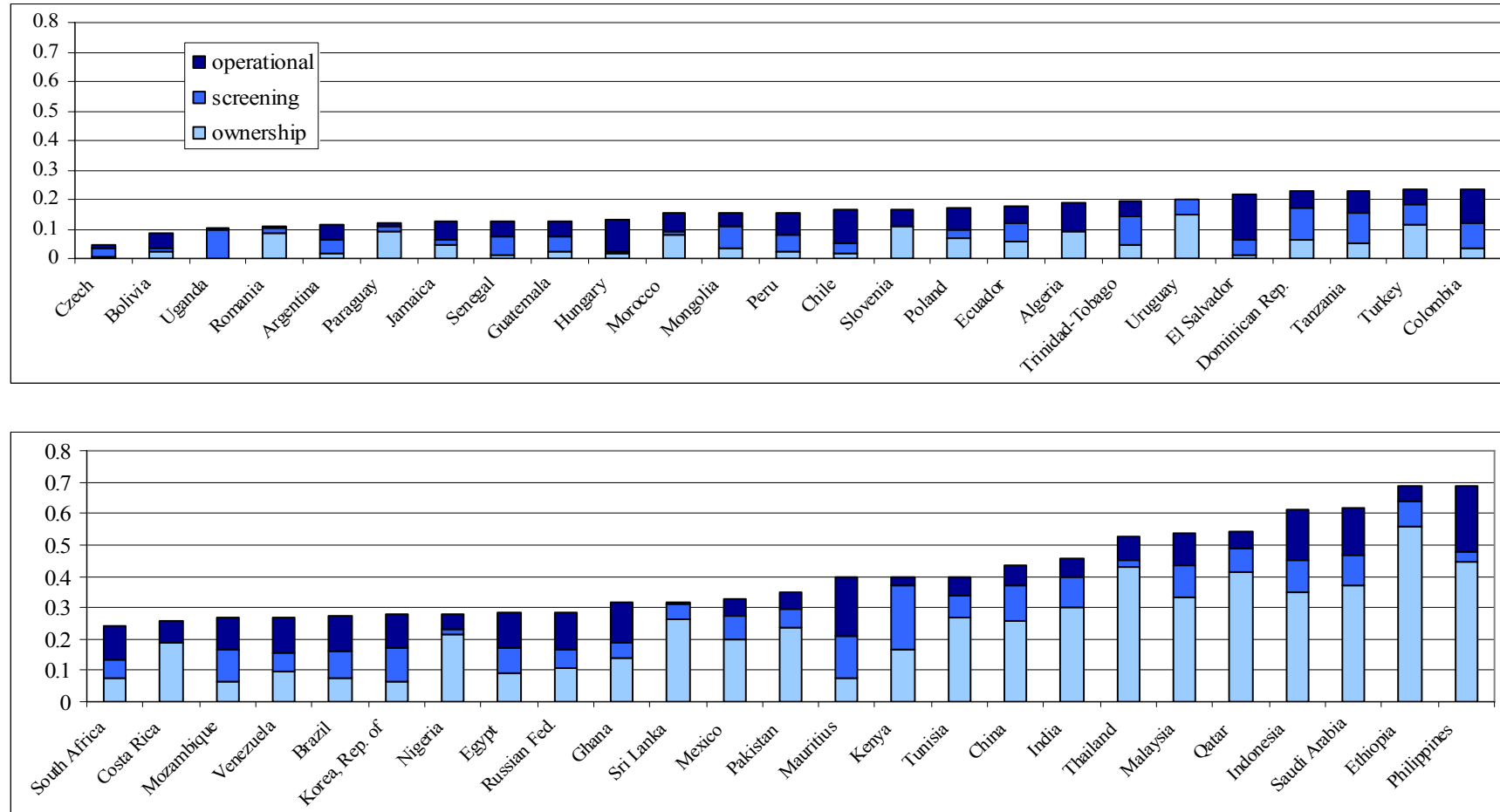
	Business	Communica.	Construction	Distribution	Education	Environment	Finance	Health	Tourism	Transport	Electricity	All Services
Algeria	0.10	0.37	0.10	0.10	0.10	0.10	0.37	0.10	0.10	0.30	0.70	0.19
Argentina	0.10	0.27	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.12
Bolivia	0.05	0.22	0.05	0.05	0.05	0.05	0.12	0.05	0.05	0.17	0.15	0.08
Brazil	0.20	0.45	0.15	0.15	0.15	0.15	0.52	0.20	0.15	0.51	0.65	0.27
Chile	0.13	0.24	0.10	0.10	0.20	0.10	0.20	0.20	0.10	0.44	0.10	0.16
China	0.23	0.55	0.15	0.55	0.25	0.25	0.48	0.55	0.15	0.61	0.55	0.44
Colombia	0.23	0.57	0.10	0.20	0.20	0.10	0.30	0.20	0.20	0.10	0.40	0.23
Costa Rica	0.10	0.88	0.05	0.05	0.20	0.05	0.45	0.10	0.15	0.49	1.00	0.26
Czech Rep.	0.10	0.03	0.00	0.00	0.13	0.00	0.10	0.10	0.00	0.00	0.20	0.04
Dominic.Rep	0.25	0.32	0.15	0.15	0.15	0.15	0.35	0.15	0.15	0.55	0.15	0.23
Ecuador	0.13	0.62	0.10	0.10	0.10	0.10	0.15	0.10	0.10	0.15	0.55	0.17
Egypt	0.15	0.57	0.55	0.15	0.15	0.15	0.35	0.15	0.35	0.23	0.80	0.28
El Salvador	0.20	0.38	0.15	0.15	0.25	0.25	0.32	0.25	0.15	0.21	0.15	0.22
Ethiopia	0.14	0.82	0.15	1.00	0.15	0.10	1.00	0.65	0.41	0.51	0.65	0.69
Ghana	0.25	0.25	0.25	0.35	0.25	0.25	0.32	0.25	0.25	0.25	0.25	0.32
Guatemala	0.10	0.27	0.10	0.10	0.10	0.10	0.13	0.10	0.10	0.10	0.30	0.13
Hungary	0.13	0.10	0.10	0.10	0.20	0.10	0.15	0.10	0.10	0.26	0.30	0.13
India	0.60	0.45	0.35	0.60	0.15	0.15	0.58	0.35	0.13	0.47	0.15	0.45
Indonesia	1.00	0.65	0.68	0.35	0.65	0.35	0.57	0.65	0.75	0.59	1.00	0.61
Jamaica	0.11	0.38	0.05	0.05	0.13	0.05	0.18	0.18	0.13	0.08	0.05	0.12
Kenya	0.34	0.43	0.33	0.33	0.33	0.33	0.56	0.35	0.33	0.33	1.00	0.40
Korea, Rep. of	0.18	0.51	0.33	0.18	0.78	0.28	0.24	0.23	0.20	0.49	0.53	0.28
Malaysia	0.74	0.63	0.20	0.70	0.20	0.20	0.40	0.20	0.70	0.40	1.00	0.54
Mauritius	0.27	0.55	0.25	0.45	0.35	0.35	0.23	0.15	0.62	0.35	1.00	0.40
Mexico	0.36	0.68	0.15	0.15	0.15	0.05	0.38	0.45	0.15	0.43	1.00	0.33
Mongolia	0.10	0.35	0.15	0.10	0.15	0.15	0.15	0.15	0.05	0.19	0.40	0.15
Morocco	0.18	0.08	0.15	0.05	0.05	0.05	0.05	0.05	0.08	0.75	0.75	0.15

**Table 5 continued: Summary results: Restrictions by industry, 2004 or latest available year**

	Business	Communication	Construction	Distribution	Education	Environment	Finance	Health	Tourism	Transport	Electricity	All Services
Mozambique	0.20	0.53	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	1.00	0.27
Nigeria	0.05	0.42	0.05	0.55	0.05	0.05	0.12	0.05	0.31	0.05	1.00	0.28
Pakistan	0.51	0.48	0.10	0.30	0.50	0.30	0.40	0.33	0.30	0.30	0.50	0.35
Paraguay	0.05	0.38	0.15	0.00	0.00	0.00	0.13	0.00	0.00	0.22	1.00	0.12
Peru	0.14	0.26	0.13	0.13	0.13	0.13	0.16	0.13	0.13	0.33	0.13	0.16
Philippines	0.95	0.80	0.70	0.30	0.60	1.00	0.63	1.00	0.60	0.68	0.70	0.69
Poland	0.08	0.50	0.04	0.14	0.04	0.04	0.30	0.04	0.04	0.20	0.54	0.17
Qatar	0.50	0.50	0.50	0.50	0.35	0.50	1.00	0.35	0.35	0.50	0.52	0.54
Romania	0.06	0.08	0.00	0.00	0.00	0.00	0.18	0.10	0.00	0.41	1.00	0.11
Russian Fed.	0.15	0.45	0.15	0.15	0.15	0.15	0.58	0.20	0.20	0.60	0.65	0.29
Saudi Arabia	0.25	0.92	0.45	0.65	0.25	0.25	0.65	0.65	0.26	1.00	1.00	0.62
Senegal	0.10	0.18	0.10	0.10	0.10	0.10	0.15	0.15	0.15	0.10	0.20	0.13
Slovenia	0.11	0.35	0.05	0.05	0.15	0.05	0.18	0.08	0.05	0.74	0.45	0.17
South Africa	0.15	0.50	0.15	0.15	0.15	0.15	0.23	0.15	0.15	0.35	1.00	0.24
Sri Lanka	0.09	0.38	0.05	0.45	0.45	0.05	0.45	0.08	0.15	0.67	0.65	0.32
Tanzania, United Rep. of	0.18	0.18	0.18	0.38	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.23
Thailand	0.53	0.58	0.55	0.45	0.45	0.45	0.65	0.45	0.45	0.45	1.00	0.53
Trinidad- Tobago	0.18	0.48	0.15	0.15	0.15	0.15	0.15	0.15	0.30	0.25	0.05	0.20
Tunisia	0.59	0.66	0.16	0.56	0.56	0.11	0.16	0.06	0.38	0.16	1.00	0.40
Turkey	0.13	0.53	0.10	0.10	0.65	0.10	0.25	0.10	0.10	0.54	1.00	0.23
Uganda	0.10	0.10	0.10	0.10	0.10	0.10	0.15	0.10	0.10	0.10	0.10	0.11
Uruguay	0.00	0.83	0.00	0.00	0.10	0.00	0.47	0.10	0.03	0.24	1.00	0.20
Venezuela	0.83	0.37	0.15	0.15	0.15	0.15	0.23	0.18	0.15	0.15	0.55	0.27
Average	0.25	0.44	0.18	0.24	0.22	0.16	0.33	0.22	0.21	0.35	0.58	0.28

Source: UNCTAD

**Figure 1: Total services restrictions, by type of restriction, 2004 or latest available year**

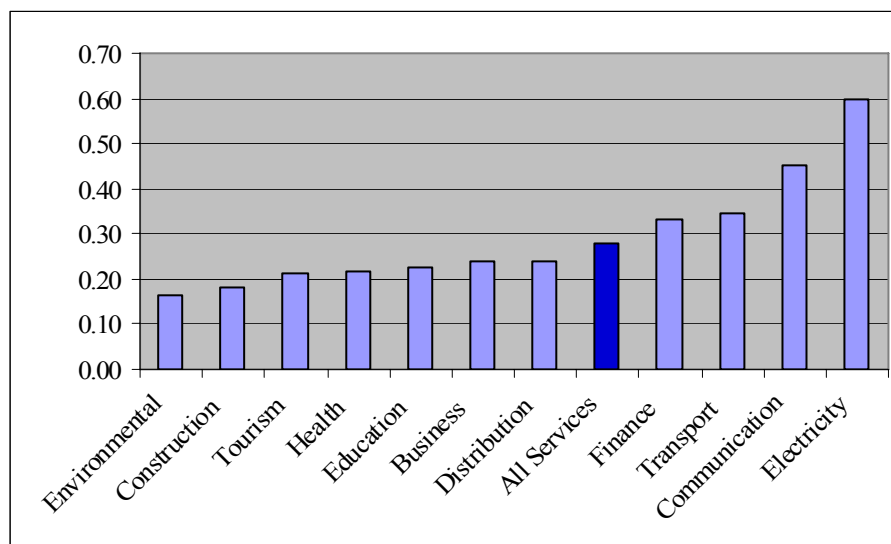


Source: UNCTAD

### III.2. Results by industry and region

Table 6 and Figure 2 show industry-based averages across the 50 countries. The electricity, telecommunications, finance and transport sectors are the industries in which FDI is most heavily restricted.<sup>19</sup> Business services and distribution are moderately restrictive. Social services such as health and education have few overt restrictions explicitly discriminating between foreign and domestic investors. Other non-discriminatory regulations limiting entry may help explain why there is little FDI in these areas. For example, hospitals and schools continue to be largely dominated by non-profit and public entities and are therefore less amenable to FDI, even if there may not be overt restrictions to foreign ownership.

**Figure 2: Sectoral restriction scores by industry, average of all countries, 2004 or latest available year**



Source: UNCTAD

Table 7 and Figure 3 display averages by region and sub-region, for all services using alternative weighting mechanisms. Notwithstanding considerable variation within regions, there are marked differences between regions (Table 7). The lowest restriction scores are found in Latin America, especially South America, and in Europe. Asia displays the highest level of restrictions, especially West Asia (including Saudi Arabia) and South-East Asia. It may seem surprising that South-East Asian developing countries such as Thailand, Malaysia and Indonesia, known for their success in export-led growth, have such high barriers to inward FDI. This

<sup>19</sup> Note that the sectoral comparisons may be affected by the incomplete data on State ownership. As noted above, State ownership was ignored due to lack of data for social services (education, health and environmental) although it may be quite high for many countries.

seeming anomaly reflects the selective attitude towards FDI in these countries: welcoming towards manufacturing and export-oriented FDI while maintaining a more cautious policy stance with regard to FDI in services. A number of East Asian countries such as China and the Republic of Korea have relatively high restriction scores, although the East Asia average is lowered by Mongolia's low score. The East Asian scores may furthermore be affected by the exclusion of Hong Kong, Singapore and Taiwan Province of China from the sample. Africa displays greater national diversity than other regions, with some countries very highly restricted (Ethiopia, Kenya), while others have low levels of restrictions (Uganda, Senegal).

The choice of weighting system does not much affect these broad inter-regional comparisons.<sup>20</sup> FDI restrictions based on GDP weights generally yield lower scores than the FDI weighting system. This is because GDP weights are higher on some sectors such as health in which there are low restrictions, whereas they are generally low on highly restricted sectors such as transport, electricity and finance (Table 3). In addition to lowering scores in all regions, this effect varies somewhat by region. In particular, the scores of East Asia, West Asian and North African drop more under GDP weights than other regions' scores do.

Figure 4 illustrates regional differences by industry, showing that patterns of restrictions are broadly similar across regions (e.g., higher in electricity and communications than in business and distribution). High Asian restrictions for all major industries are also reflected in Figure 4. African electricity and Latin American telecoms are partial exceptions, with elevated scores relative to the regional/industrial pattern. (See Annex 2 for a closer look at the ownership restrictions by sector and country).

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<sup>20</sup> See also Annex 3 for individual country results under alternative weighting systems.

**Table 6. Average restrictions by sector and sub-sector, average of all countries, 2004 or latest available year**

Business		0.24
	Legal	0.25
	Accounting	0.26
	Computer	0.19
	R&D	0.22
Communication		0.45
	Fixed	0.49
	Mobile	0.35
	Audiovisual	0.48
Construction		0.18
Distribution		0.24
	Wholesale	0.23
	Retail	0.25
Education		0.23
Environmental		0.16
Finance		0.33
	Insurance	0.32
	Banking	0.34
Health		0.22
Tourism		0.21
	Hotels & Restaurants	0.20
	Agencies	0.24
Transport		0.35
	International Maritime	0.28
	Domestic Maritime	0.32
	Domestic Air	0.39
	International Air	0.34
	Rail	0.40
	Road	0.26
Electricity	Generation, Distribution	0.60
All Services		0.28

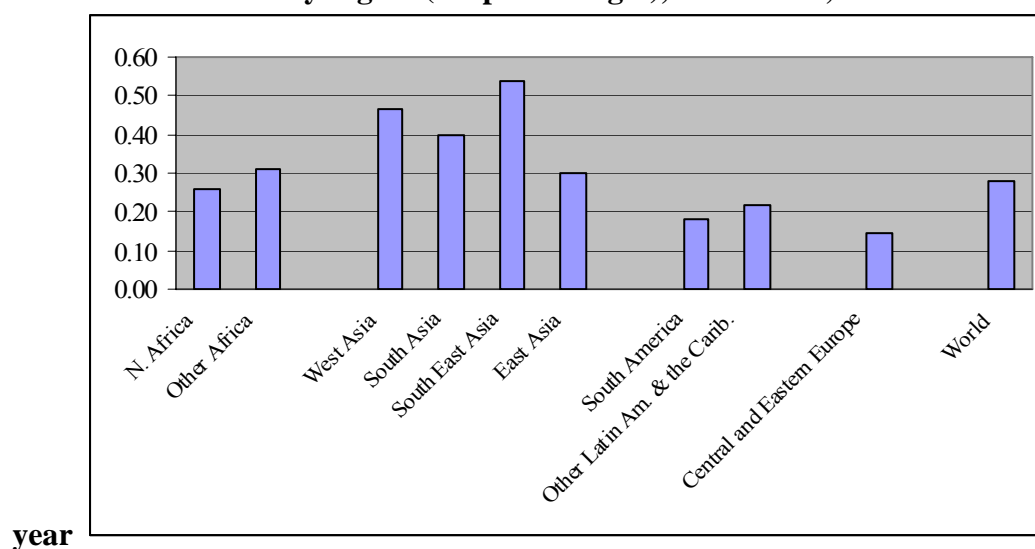
Source: UNCTAD

**Table 7: FDI restrictions by region (simple averages), all services alternative weighting systems, 2004 or latest available year**

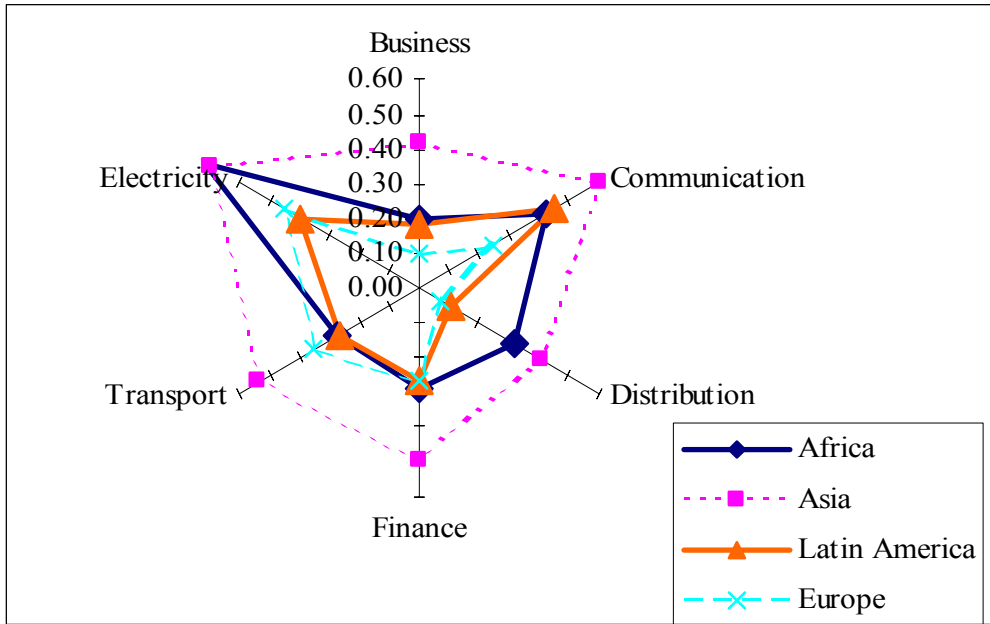
	GDP	FDI
<b>Africa</b>	0.29	0.33
North Africa	0.26	0.32
Other Africa	0.31	0.33
<b>Asia</b>	0.44	0.49
West Asia	0.46	0.53
South Asia	0.40	0.42
South-East Asia	0.54	0.60
East Asia	0.30	0.31
<b>Latin America &amp; the Caribbean</b>	0.20	0.19
South America	0.18	0.23
Other	0.22	0.25
<b>Central and Eastern Europe</b>	0.15	0.14
<b>All countries</b>	0.28	0.32

Source: UNCTAD

**Figure 3: FDI restrictions by region (simple averages), all services, 2004 or latest available**



**Figure 4: Regional differences for selected industries, 2004 or latest available year**



Source: UNCTAD

### *III.3. Results using GATS schedules only*

The only multilateral agreement related to FDI in services for developing countries is the GATS, which covers FDI under its "mode 3" (commercial presence) commitments on trade in services.<sup>21</sup> With its positive list approach, i.e., it lists commitments to liberalization along with some reservations to those commitments, it does not provide a comprehensive picture of the extent to which a country permits FDI in services. An index of restrictions was computed using the GATS schedules only. Where no commitment is made in the GATS, the industry is assumed closed to FDI.<sup>22</sup> Figure 5 provides a comparison between the national average results using the GATS only to the baseline results presented earlier. GATS-only scores are considerably higher than the baseline scores for most countries. This follows from the assumption that a sector is closed if there is no commitment in the GATS, but where other sources reveal restrictions. Also, in some cases, restrictions as listed in GATS have been liberalized or removed.<sup>23</sup> In a few countries and sectors, on the other hand, the GATS reports that there are no restrictions whereas other sources indicate otherwise. In such instances, GATS-only restrictions can be below those of the baseline indicator. For a number of East Asian countries, notably Indonesia, Malaysia, Thailand, and the Philippines, and to a lesser extent China and the Republic of Korea, GATS-only and baseline yield similar results, suggesting that these countries have chosen to bind liberalization efforts multilaterally. For the vast majority of countries, however, the GATS-only restrictions are much higher. The simple average restriction score for the 46 countries of the sample that are WTO members more than doubles from 0.27 to 0.64, when the GATS-only is used.<sup>24</sup>

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<sup>21</sup> For operational restrictions, mode 4 (movement of people) GATS commitments were also used, but scores for this category of restrictions play a very minor role in the comparison between the baseline and GATS-only scenarios, since they usually account for a very small part of restrictions scores.

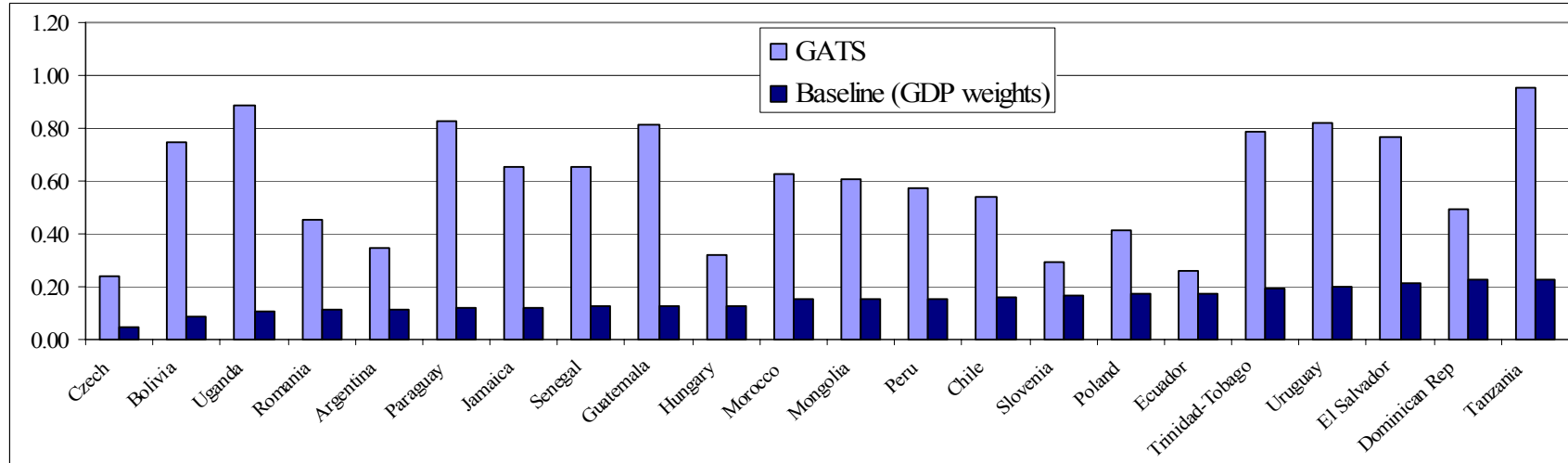
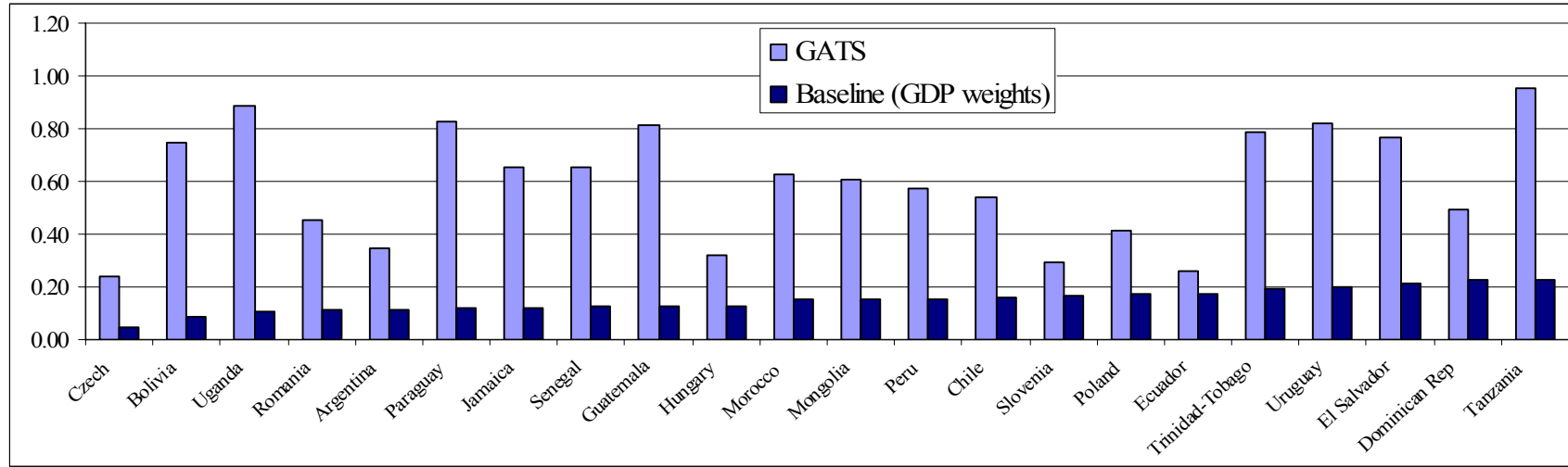
<sup>22</sup> A few countries in the sample were not WTO members, and did therefore not report any GATS commitments (Algeria, Ethiopia, Russian Federation, Saudi Arabia). These were not included in the comparison.

<sup>23</sup> For example, in Argentina the GATS shows a restriction on entry of new insurance companies; in the Czech Republic the GATS lists a restriction that 60 percent of the capital share or voting rights of accounting firms must be held by Czech citizens; in Mexico the GATS stipulates a limit of 49 percent foreign shareholding in construction. More recent sources make no mention of these restrictions.

<sup>24</sup> The correlation coefficient between the GATS-only and the baseline is moderate at 0.33.

In short, using GATS data only as a source of information tends to underestimate the extent to which countries have liberalized FDI in services, under the interpretation that the lack of a GATS commitment reflects closure to FDI. This may reflect countries' greater willingness to engage in unilateral liberalization rather than commitment to multilateral liberalization, in order to maintain flexibility to alter their policies.

**Figure 5 Comparison between FDI restriction scores based on GATS only to baseline case**



Source: UNCTAD

#### IV. Correlation between FDI patterns and restriction scores

A full statistical analysis of the effects of the computed restriction scores on behaviour of FDI is beyond the scope of the paper. As a first cut, however, this section presents correlation coefficients between the computed restrictions scores and stocks and flows of FDI in services.<sup>25</sup>

Data on FDI in services is available only for a limited number of countries. For the 50 countries in the sample, stock data is available for 23 countries and flow data for 30 countries. Stock data is for 2002 and flow data is average annual flows 1997-2002<sup>26</sup>. Both variables are scaled by dividing by 2002 GDP.<sup>27</sup> Figures 5 and 6 present the scatter plots for FDI stocks and flows, respectively, with the summary national measures of restrictiveness towards FDI.

A strong negative correlation is clear between restriction measures and FDI activity, with the correlation coefficient equal to -0.52 for stocks and -0.53 for flows.<sup>28</sup> Countries with low measures of restrictions such as Chile, Bolivia and the Czech Republic have high stocks and/or flows of FDI in services. Likewise, countries with higher restriction scores such as Pakistan, India, and the Republic of Korea tend to have lower FDI. Some of the most restrictive countries, however, have somewhat higher FDI than predicted by the regression line. In the case of FDI stocks (Figure 6), these outliers are mainly in East and South-East Asia (Indonesia, Malaysia, Thailand and China). The somewhat higher-than-predicted FDI for these countries may reflect the strength of other locational assets, including size of their internal markets, especially for China. These factors may partially offset the relatively elevated restrictions in inducing inward FDI. Market size and business climate may also help explain why Brazil and Chile have somewhat-higher than predicted FDI stocks. Conversely, perceived weaknesses in the business climate could explain why the Russian Federation's FDI falls below the regression line. In the case of FDI flows (Figure 7), the outliers again include some East Asian countries (the Philippines, Thailand, and to a lesser extent China) as well as Ethiopia and Saudi Arabia, two countries with very high level of restrictions and low levels of FDI—but not as low as the regression line predicts. These latter two outliers may suggest some additional non-linearities in the relationship between restrictions and FDI, i.e., even at very high levels of restrictions some FDI may occur beyond that suggested by the relationship in Figures 5 and 6. In addition, imperfections in the data on FDI as well as all the limitations of the restrictions measures noted above introduce some additional randomness to both series, further reducing the observed correlation.

More generally, of course, FDI inflows are affected by many factors such as domestic labour and product market characteristics, protection of property rights, market size, and other geographic and policy variables, in a way that would best be captured by multivariate regression

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<sup>25</sup> The stocks and flows in services are from the UNCTAD FDI database.

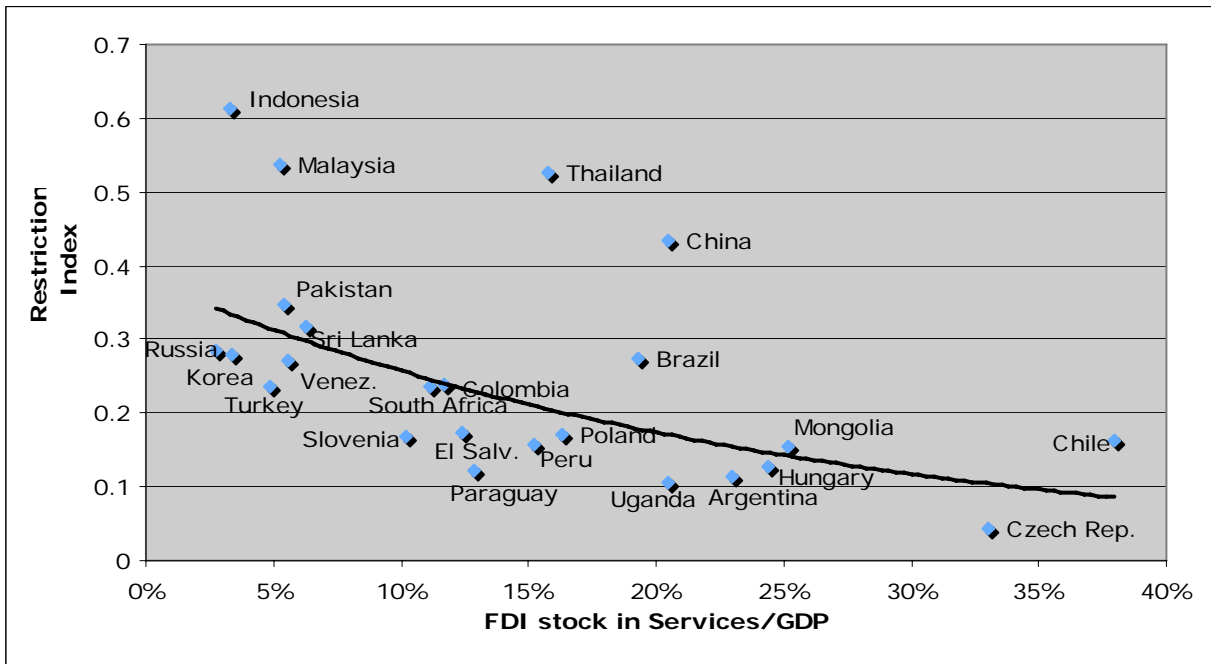
<sup>26</sup> Flows were averaged over this period to smooth substantial year-to-year volatility and to deal with missing data for some years.

<sup>27</sup> Alternatively, one could divide by service-sector GDP, but this is unlikely to affect the correlations significantly since services are a high share of GDP for all economies.

<sup>28</sup> The  $R^2$  is about 0.4 for both stocks and flows, i.e., the FDI restriction variable by itself explains 40 percent of the variation in FDI service stocks and flows.

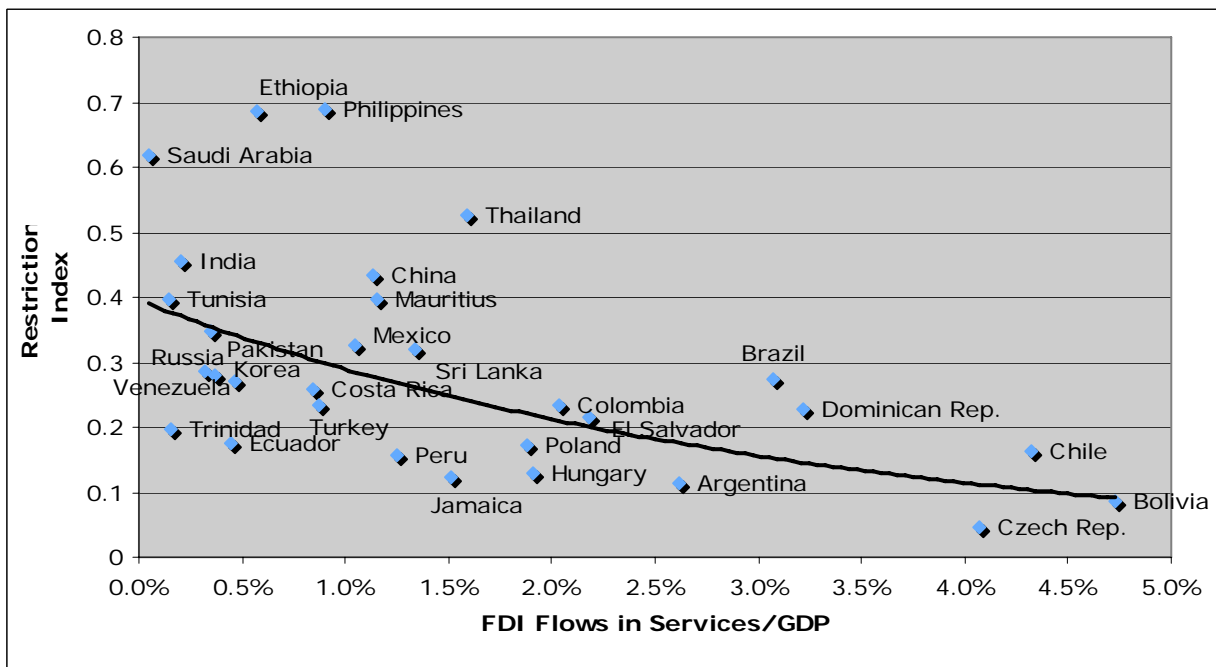
analysis rather than simple correlation, as in Nicoletti *et al* (2003). Even after controlling for these variables, some idiosyncratic country variation is to be expected. It is therefore all the more interesting that the simple correlations shown here reveal a strikingly strong negative relationship between the measure of restrictions proposed here and FDI patterns, suggesting both that the restrictions measures are broadly accurate and that they matter greatly for FDI.

**Figure 6: Scatter plot of FDI stocks in services (as percent of GDP) and FDI restriction scores for all services, 23 countries, 2002**



Source: UNCTAD

**Figure 7: Scatter plot of FDI flows in services (as percent of GDP) and FDI restriction scores for all services, 30 countries, 1997-2002 average**



Source: UNCTAD

## **. V. Conclusions**

This study is a first attempt to provide quantitative measures of restrictions on FDI in developing countries, and the most extensive study to date of developing countries' policies.

Almost all countries now welcome foreign investment in export-oriented manufacturing. The service sector, however, remains more restricted, notwithstanding substantial liberalization in the past 15 years. This paper has sought to document and analyze the pattern of restrictions in the service sector for a large group of developing countries and economies in transition in Africa, Asia, Latin America and Central and Eastern Europe. Indices of barriers to foreign ownership as well as operational restrictions towards foreign firms were computed at a detailed industrial level and aggregated into an overall national indicator.

Some limitations of the analysis are worth re-emphasizing. The information upon which the restriction scores are based is often not complete or consistent. The policies under study are frequently modified and some recent changes may have been missed, although every effort was made to use up-to-date information. The study is mostly limited to statutory violations of national treatment and therefore does not provide a comprehensive measure of the business climate.

Despite these limitations, the study is more comprehensive than prior studies of policies towards FDI in services in developing countries. Moreover, the indicators of restrictiveness are validated by their strong negative correlation with FDI activity, suggesting both that the indicators are broadly accurate and that they matter for FDI determination. The results also suggest that reliance on the GATS schedules alone, as in many prior studies, underestimates the extent to which countries have opened up their economies to FDI in services.

As in the case of OECD countries (Golub, 2003), the most heavily restricted industries are those that are highly sensitive to national security or national sovereignty considerations: telecommunications, transport, finance, electricity, and media. There is also a wide dispersion in the extent of openness towards FDI in services between and within regions. The most open developing countries tend to be in Latin American and Central and Eastern Europe. East, South-East and West Asia tend to be more restrictive.

Future research should seek to verify and refine the results reported here, and extend the data collection and analysis to additional countries. The impact of the computed restrictions on FDI stocks and flows using multivariate regression techniques rather than simple correlations as reported here should also be pursued. There is also a need for more detailed analysis of the FDI laws and regulations pertaining to services in different countries.

## Annex 1. Data Sources

**UNCTAD Survey.** 31 countries responded to the survey conducted for this study, which consisted of a table to be filled out regarding restrictions for each sector listed in Table 2, and a questionnaire on the nature of restrictions. Of the 31 respondents, 27 were used in the sample. In four cases (Georgia, Macedonia, Rwanda, and Serbia) answers were incomplete and/or could not be corroborated by outside sources, and were not used. Conversely, many of the most economically important developing countries including Brazil, India and Malaysia did not respond to the survey. Therefore, 23 additional countries were added to the sample despite their not filling out the survey. These 23 were determined by economic significance as well as data availability. For a country to be added to the list, several sources of information were required. In all, the sample therefore consisted of 50 countries.

**Other UNCTAD sources.** As the international organization with primary responsibility for collecting information on foreign direct investment, UNCTAD has several internal and public sources which contain information on policies towards FDI.

- A survey on the *Regulatory Framework (RF)* is carried out for the UNCTAD Investment Compass, a guide to the investment climate in UNCTAD member countries. This survey asks some but not all of the questions covered in the survey designed for this study. A greater number of countries have responded to the RF than to our survey.

- UNCTAD collects a list of *Policy Changes* each year from member countries. These reports do not specify the overall policies but only modifications or new policies. By themselves, therefore the policy changes provide only partial information, but they can be useful when combined with other sources.

- UNCTAD *Investment Policy Reviews (IPR)* are country studies carried out on an irregular basis examining member country policies in considerable detail, resulting in a published monograph available on line. These monographs contain a chapter on the legal environment affecting FDI.

**OECD Sources.** The OECD's Directorate on Financial and Fiscal Affairs monitors FDI regulations among OECD member countries. A few of the newer OECD members were included in our sample (including Mexico, Poland, Hungary, and Turkey). Increasingly, the OECD has extended its mandate towards non-member countries.

- Like UNCTAD, the OECD publishes *Investment Policy Reviews*, similar in nature to UNCTAD's IPRs. Recently, the OECD has issued a number of IPRs for non-member countries, including Brazil China, Russian Federation, Slovenia, Carribean Basin (Costa Rica, Jamaica and the Dominican Republic), and Romania.

- The OECD has recently released an analysis of the *Regulatory Environment for Foreign Direct Investment in Africa* (OECD 2005) in conjunction with the African NEPAD initiative. This study contains a list of policies towards FDI for 11 African countries, 10 of which were included in the present study.

•The **Golub (2003)** study for the OECD included the four new members of the OECD mentioned above.

### **U.S. government sources**

•The *United States Special Trade Representative* (USTR) issues the National Trade Estimate Report on Foreign Trade Barriers, an annual analysis of impediments in other countries affecting U.S. businesses. These include investment restrictions.

•In addition, the U.S. Commerce Department prepares a regular analysis of the business environment in foreign countries in its *Country Commercial Guide*. Each of these guides contains a chapter on the investment climate, which itself includes a section entitled “openness to foreign investment,” which reports restrictions on FDI.

•For electricity, the *U.S. Department of Energy’s* Country Commercial Briefs generally provide information on the extent of State and foreign ownership.

**GATS commitment schedules.** The limitations of the GATS positive lists were discussed above but they provide a useful supplemental source of information.

**Price Waterhouse Coopers (PWC).** PWC has a Doing Business and Investing in Countries Worldwide CD (2001) with descriptions of barriers to foreign investors in a large number of countries.

**Other Sources.** The Inter-American Development Bank (IADB) issued a study of restrictions to FDI in Latin America in 1997. While quite comprehensive, it is in some cases out of date and only used as a last resort or to corroborate other sources.

For some countries, national sources were consulted, but the large number of countries in the sample precluded a systematic search of national sources.

**Table A1: Country Sources**

	UNCTAD Survey	UNCTAD RF	UNCTAD policy changes	UNCTAD IPR	PWC	US Country Comm. Guide	USTR 2004	GATS Horiz.	GATS Sector	OECD IPR	OECD Africa	IADB Latin Amer.	Golub OECD Study
Algeria	√	√	√	√		√							
Argentina	√		√		√	√	√	√	√			√	
Bolivia	√	√	√		√	√	√	√	√			√	
Brazil		√	√	√	√	√	√	√	√	√		√	
Chile	√	√	√		√	√	√	√	√			√	
China	√		√		√		√	√	√	√			
Colombia		√	√		√	√	√	√	√			√	
Costa Rica			√			√	√	√	√	√		√	
Czech Rep.	√		√			√		√	√				√
Dominican Rep.			√				√	√	√	√		√	
Ecuador		√	√	√	√	√	√	√	√			√	
Egypt	√	√	√	√	√	√	√	√	√				
El Salvador	√		√			√	√	√	√			√	
Ethiopia	√	√	√	√							√		
Ghana		√	√	√		√		√	√		√		
Guatemala	√		√			√	√	√	√			√	
India			√		√	√	√	√	√				
Indonesia	√		√		√	√	√	√	√				
Jamaica			√		√	√		√	√	√		√	
Kenya		√	√			√	√	√	√		√		
Korea, Rep. of	√	√	√		√	√	√	√	√				
Malaysia		√	√		√	√	√	√	√				
Mauritius	√		√	√	√			√	√		√		
Mexico	√	√	√		√	√	√	√	√			√	√
Mongolia	√		√						√				
Morocco		√	√		√	√	√	√	√				
Mozambique			√			√			√		√		
Nigeria		√	√		√	√	√	√	√		√		
Pakistan		√	√			√	√	√	√				
Paraguay	√	√	√		√	√	√		√			√	
Peru	√	√	√	√	√	√	√	√	√			√	
Philippines	√		√		√	√	√	√	√				
Poland			√		√	√	√	√	√				√
Qatar	√		√		√			√	√				
Romania	√		√			√	√	√	√	√			
Russian Federation			√		√	√	√			√			
Saudi Arabia	√	√	√			√							
Senegal		√	√			√			√		√		
Slovenia	√		√			√		√	√	√			
South Africa		√	√		√	√	√	√	√		√		
Sri Lanka	√		√	√		√	√	√	√				
Tanzania, United Rep. of		√	√	√		√			√		√		
Thailand		√	√		√	√	√	√	√				
Trinidad-Tobago	√		√		√	√		√	√			√	
Tunisia	√	√	√			√		√	√				
Turkey			√		√	√	√	√	√				√
Uganda		√	√			√			√		√		
Uruguay	√	√	√		√	√		√	√			√	
Venezuela		√	√		√	√	√	√	√			√	

Source: UNCTAD

## **Annex 2: Ownership restrictions by country and industry**

Ownership restrictions are the dominant source of international variation in the aggregate measures of openness to FDI. Annex Table A2 provides a closer look at the international pattern of restrictions in some key industries. For brevity and clarity, industries in which there are few explicit ownership restrictions are excluded from the table. Where results for sub-industries are very similar, only a limited number of sub-industries are reported e.g., only wholesale under distribution and only hotels and restaurants under tourism. The table separates ownership limits on foreign investors into four categories: bans<sup>29</sup>, minority ownership allowed, majority ownership allowed, and no restrictions, and includes State ownership as a de facto barrier. The share of State ownership is also indicated in the table as a de facto foreign ownership restriction, as explained earlier.<sup>30</sup>

For all industries, the most common entry regulation is no restriction. Complete bans, conversely, are rare. Minority foreign ownership limits are relatively common in telecoms, banking, and transport, largely explaining the high overall restriction scores for these industries.

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<sup>29</sup> A State monopoly is considered tantamount to a ban, as noted earlier, and is included in the Table. This is rare, however, for the sectors included in Table A2, except for telecoms. State monopoly in electricity is the predominant form of restriction, which is not included in the Table since the focus here is on discriminatory restrictions rather than State monopoly.

<sup>30</sup> Where there is both State ownership and an explicit foreign ownership restriction, the higher of the two restrictions is listed in Table A2.

**Table A2: Equity restrictions and government ownership(\*) in selected industries, 2004 or latest available year**

Permissible Foreign Share	Business services (selected industries)		Telecoms	
	Legal	Accounting	Fixed	Mobile
<b>None allowed</b>	India, Indonesia, Philippines, Saudi Arabia, Tunisia	Indonesia, Philippines, Saudi Arabia, Tunisia,	Costa Rica*, Mozambique*, Paraguay*, Saudi Arabia, Tunisia*, Uruguay*	Costa Rica*, Saudi Arabia
<b>1%-49%</b>	Malaysia, Pakistan, Qatar, Thailand, Venezuela	Malaysia, Mexico, Morocco, Pakistan, Qatar, Thailand, Venezuela	Algeria*, China, Ecuador*, Egypt, Ethiopia, India, Republic of Korea, Malaysia, Mauritius*, Mexico, Mongolia*, Philippines, Pakistan*, Poland*, Qatar, Russian Federation*, Slovenia*, South Africa*, Thailand, Trinidad & Tobago*, Turkey	Algeria*, China, Egypt, Ethiopia, India, Malaysia, Mongolia*, Philippines, Qatar, Republic of Korea, Slovenia*, South Africa*, Sri Lanka, Thailand, Tunisia*, Turkey, Uruguay*
<b>50%-99%</b>	Colombia, Ghana, Kenya	China, Ghana, India, Kenya, Slovenia	Bolivia*, Colombia, Ghana, Indonesia, Kenya, Senegal, Sri Lanka*	Bolivia*, Colombia, Ecuador*, Ghana, Indonesia, Kenya, Pakistan, Senegal, Trinidad & Tobago*
<b>No restrictions</b>	Algeria, Argentina, Bolivia, Brazil, Chile, China, Costa Rica, Czech Republic, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, Guatemala, Hungary, Jamaica, Mauritius, Mexico, Mongolia, Morocco, Mozambique, Nigeria, Paraguay, Peru, Poland, Republic of Korea, Romania, Russia, Senegal, Slovenia, South Africa, Sri Lanka, Trinidad & Tobago, Turkey, Uganda, United Republic of Tanzania, Uruguay	Algeria, Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Czech Republic, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, Guatemala, Hungary, Jamaica, Korea, Mauritius, Mongolia, Mozambique, Nigeria, Paraguay, Peru, Poland, Romania, Russia, Senegal, South Africa, Sri Lanka, Turkey, Trinidad & Tobago, Uganda, United Republic of Tanzania, Uruguay	Argentina, Brazil, Chile, Czech Republic, Dominican Republic, El Salvador, Guatemala, Hungary, Jamaica, Mauritius, Mexico, Morocco, Mozambique, Nigeria, Paraguay, Peru, Poland, Romania, Uganda, United Republic of Tanzania, Venezuela	Argentina, Brazil, Chile, Czech Republic, Dominican Republic, El Salvador, Guatemala, Hungary, Jamaica, Mauritius, Mexico, Morocco, Mozambique, Nigeria, Paraguay, Peru, Poland, Russian Federation, Romania, Uganda, United Republic of Tanzania, Venezuela

\*Denotes 100-government ownership percent, i.e., share of business held by the private sector.

**Table A2, continued: Equity restrictions and government ownership(\*) in selected industries, 2004 or latest available year**

Permissible Foreign Share	Distribution		Financial services	
	Construction	Wholesale	Insurance	Banking
<b>None allowed</b>	NONE	Ethiopia,	Costa Rica, Ethiopia, Qatar	Ethiopia, Qatar
<b>1%-49%</b>	Egypt, Indonesia, Mexico, Qatar, Thailand	China, Malaysia, Nigeria, Qatar, Saudi Arabia, Sri Lanka*, Thailand, Tunisia	Brazil, India, Jamaica, Mexico, Russian Federation, Slovenia*, Saudi Arabia, Sri Lanka, Thailand	Algeria, China, India, Indonesia*, Kenya, Pakistan, Saudi Arabia, Sri Lanka, Thailand, Uruguay*
<b>50%-99%</b>	Ghana, India, Kenya, Paraguay, Philippines, Saudi Arabia	Ghana, Kenya, Pakistan, United Republic of Tanzania,	China, Ghana, Kenya, Malaysia, Pakistan, Poland, Romania, Uruguay*	Brazil, Czech Republic*, Egypt, Malaysia, Mexico, Philippines, Poland, Romania, Russian Federation, Slovenia*
<b>No restrictions</b>	Algeria, Argentina, Bolivia, Brazil, Chile, China, Columbia, Costa Rica, Czech Republic, Dominican Republic, Ecuador, Ethiopia, El Salvador, Guatemala, Hungary, Jamaica, Malaysia, Mongolia, Morocco, Mozambique, Nigeria, Pakistan, Peru, Poland, Romania, Russian Federation, Senegal, Slovenia, South Africa, Sri Lanka, Trinidad & Tobago, Tunisia, Turkey, Uganda, United Republic of Tanzania, Uruguay, Venezuela	Algeria, Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Czech Republic, Dominican Republic, Ecuador, Egypt, El Salvador, Guatemala, Hungary, India, Indonesia, Jamaica, Mauritius, Mexico, Mongolia, Morocco, Mozambique, Paraguay, Peru, Philippines, Poland, Republic of Korea, Romania, Russian Federation, Senegal, Slovenia, South Africa, Trinidad & Tobago, Turkey, Uganda, Uruguay, Venezuela	Algeria, Argentina, Bolivia, Chile, Colombia, Czech Republic, Dominican Republic, Ecuador, Egypt, El Salvador, Guatemala, Hungary, Indonesia, Mauritius, Mongolia, Morocco, Mozambique, Nigeria, Paraguay, Peru, Philippines, Republic of Korea, Senegal, South Africa, Tanzania, Trinidad & Tobago, Tunisia, Turkey, Uganda, Venezuela	Argentina, Bolivia, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Hungary, Jamaica, Mauritius, Mongolia, Morocco, Mozambique, Nigeria, Paraguay, Peru, Republic of Korea, Senegal, South Africa, Trinidad & Tobago, Tunisia, Turkey, Uganda, United Republic of Tanzania, Venezuela

\*Denotes 100-government ownership percent, i.e., share of business held by the private sector.

**Table A2, continued: Equity restrictions and government ownership(\*) in selected industries, 2004 or latest available year**

	<b>Tourism</b>	<b>Transport (selected industries)</b>	
	<b>Hotels &amp; Restaurants</b>	<b>Domestic Maritime</b>	<b>Domestic Air</b>
<b>None allowed</b>	NONE	China, Republic o Korea, Trinidad & Tobago*	Morocco*, Romania, Saudi Arabia, Sri Lanka,
<b>1%-49%</b>	Malaysia, Thailand, Tunisia	Costa Rica, Dominican Republic, Egypt, Ethiopia, Malaysia, Mexico, Philippines, Qatar, Saudi Arabia*, Slovenia, Sri Lanka, Thailand, Turkey	Brazil, China, Dominican Republic, Ethiopia*, Hungary, India, Indonesia, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Republic of Korea, Russian Federation, Slovenia, Thailand, Turkey
<b>50%-99%</b>	Ghana, Indonesia, Kenya, Mauritius, Pakistan, Philippines, Qatar	Algeria*, Ghana, India, Indonesia, Kenya, Pakistan	Algeria*, Bolivia*, Costa Rica, Ghana, Kenya, Pakistan
<b>No restrictions</b>	Algeria, Argentina, Bolivia, Brazil, Chile, China, Colombia, Costa Rica, Czech Republic, Dominican, Ecuador, Egypt, El Salvador, Ethiopia, Guatemala, Hungary, India, Jamaica, Republic of Korea, Mexico, Mongolia, Morocco, Mozambique, Nigeria, Paraguay, Peru, Poland, Romania, Russian Federation, Saudi Arabia, Senegal, Slovenia, South Africa, Sri Lanka, Trinidad and Tobago, Turkey, Uganda, United Republic of Tanzania, Uruguay, Venezuela	Argentina, Bolivia, Brazil, Chile, Colombia, Czech Republic, Ecuador, El Salvador, Guatemala, Hungary, Jamaica, Mauritius, Mongolia, Morocco, Mozambique, Nigeria, Paraguay, Peru, Poland, Romania, Russian Federation, Senegal, South Africa, Tunisia, Uganda, United Republic of Tanzania, Uruguay, Venezuela	Argentina, Chile, Colombia, Czech Republic, Egypt, Ecuador, El Salvador, Guatemala, Jamaica, Mauritius, Mongolia, Mozambique, Nigeria, Paraguay, Senegal, South Africa, Trinidad & Tobago, Tunisia, Uganda, United Republic of Tanzania, Uruguay, Venezuela

\*Denotes 100-government ownership percent, i.e., share of business held by the private sector.

Source: UNCTAD

**Annex 3: Alternative Weights**  
**Table A3 Comparison of Results with Alternative Sectoral Weights**

	<b>FDI</b>	<b>GDP</b>
Algeria	0.27	0.19
Argentina	0.11	0.12
Bolivia	0.10	0.08
Brazil	0.35	0.27
Chile	0.17	0.16
China	0.43	0.44
Colombia	0.27	0.23
Costa Rica	0.36	0.26
Czech Rep.	0.08	0.04
Dominican Rep.	0.27	0.23
Ecuador	0.20	0.17
Egypt	0.33	0.28
El Salvador	0.23	0.22
Ethiopia	0.66	0.69
Ghana	0.36	0.32
Guatemala	0.13	0.13
Hungary	0.15	0.13
India	0.50	0.45
Indonesia	0.73	0.61
Jamaica	0.12	0.12
Kenya	0.48	0.40
Korea, Rep. of	0.31	0.28
Malaysia	0.63	0.54
Mauritius	0.42	0.40
Mexico	0.41	0.33
Mongolia	0.17	0.15
Morocco	0.20	0.15
Mozambique	0.32	0.27
Nigeria	0.26	0.28
Pakistan	0.42	0.35
Paraguay	0.20	0.12
Peru	0.16	0.16
Philippines	0.69	0.69
Poland	0.23	0.17
Qatar	0.65	0.54
Romania	0.19	0.11
Russian Federation	0.36	0.29
Saudi Arabia	0.63	0.62
Senegal	0.13	0.13
Slovenia	0.22	0.17
South Africa	0.30	0.24
Sri Lanka	0.37	0.32
Tanzania, United Republic of	0.20	0.23
Thailand	0.60	0.53
Trinidad-Tobago	0.20	0.20
Tunisia	0.48	0.40
Turkey	0.31	0.23
Uganda	0.11	0.11
Uruguay	0.30	0.20
Venezuela	0.40	0.27
Average	0.32	0.28

#### Annex 4: Complete Results

		Algeria	Argentina	Bolivia	Brazil	Chile	China	Colombia
Business								
	Legal	0.10	0.10	0.05	0.25	0.20	0.35	0.33
	Accounting	0.10	0.10	0.05	0.25	0.10	0.23	0.20
	Computer	0.10	0.10	0.05	0.15	0.10	0.20	0.20
	R&D	0.10	0.10	0.05	0.15	0.10	0.15	0.20
	Total	0.10	0.10	0.05	0.20	0.13	0.23	0.23
Communication								
	Fixed	0.50	0.10	0.35	0.50	0.20	0.55	0.50
	Mobile	0.50	0.10	0.25	0.30	0.20	0.55	0.50
	Audiovisual	0.10	0.60	0.05	0.55	0.33	0.55	0.70
	Total	0.37	0.27	0.22	0.45	0.24	0.55	0.57
Construction		0.10	0.10	0.05	0.15	0.10	0.15	0.10
Distribution								
	Wholesale	0.10	0.10	0.05	0.15	0.10	0.55	0.20
	Retail	0.10	0.10	0.05	0.15	0.10	0.55	0.20
	Total	0.10	0.10	0.05	0.15	0.10	0.55	0.20
Education		0.10	0.10	0.05	0.15	0.20	0.25	0.20
Environmental		0.10	0.10	0.05	0.15	0.10	0.25	0.10
Finance								
	Insurance	0.10	0.10	0.25	0.70	0.20	0.35	0.30
	Banking	0.50	0.10	0.05	0.43	0.20	0.55	0.30
	Total	0.37	0.10	0.12	0.52	0.20	0.48	0.30
Health		0.10	0.10	0.05	0.20	0.20	0.55	0.20
Tourism								
	Hotels & Rest.	0.10	0.10	0.05	0.15	0.10	0.15	0.20
	Agencies	0.10	0.10	0.05	0.15	0.10	0.15	0.20
	Total	0.10	0.10	0.05	0.15	0.10	0.15	0.20
Transport								
	Int'l Maritime	0.30	0.10	0.05	0.20	0.20	0.55	0.10
	Dom. Maritime	0.30	0.10	0.05	0.30	0.40	1.00	0.10
	Domestic Air	0.30	0.10	0.25	0.70	0.40	0.55	0.10
	Int'l Air	0.30	0.10	0.25	0.70	0.30	0.55	0.10
	Rail	0.30	0.10	0.25	0.20	1.00	0.55	0.10
	Roads	0.30	0.10	0.05	0.70	0.10	0.55	0.10
	Total	0.30	0.10	0.17	0.51	0.44	0.61	0.10
Electricity		0.70	0.10	0.15	0.65	0.10	0.55	0.40
All Services		0.19	0.12	0.08	0.27	0.16	0.44	0.23

**Table A4 continued: Complete Results**

		Costa Rica	Czech Rep.	Dominican Rep.	Ecuador	Egypt	El Salvador	Ethiopia
Business								
	Legal	0.10	0.08	0.35	0.13	0.15	0.25	0.10
	Accounting	0.10	0.08	0.35	0.13	0.15	0.25	0.15
	Computer	0.10	0.10	0.15	0.13	0.15	0.15	0.15
	R&D	0.10	0.15	0.15	0.13	0.15	0.15	0.15
	Total	0.10	0.10	0.25	0.13	0.15	0.20	0.14
Communication								
	Fixed	1.00	0.10	0.15	0.75	0.78	0.25	0.75
	Mobile	1.00	0.00	0.15	0.35	0.78	0.25	0.60
	Audiovisual	0.55	0.00	0.65	0.75	0.15	0.65	1.00
	Total	0.88	0.03	0.32	0.62	0.57	0.38	0.82
Construction		0.05	0.00	0.15	0.10	0.55	0.15	0.15
Distribution								
	Wholesale	0.05	0.00	0.15	0.10	0.15	0.15	1.00
	Retail	0.05	0.00	0.15	0.10	0.15	0.15	1.00
	Total	0.05	0.00	0.15	0.10	0.15	0.15	1.00
Education		0.20	0.13	0.15	0.10	0.15	0.25	0.15
Environmental		0.05	0.00	0.15	0.10	0.15	0.25	0.10
Finance								
	Insurance	1.00	0.10	0.55	0.15	0.15	0.35	1.00
	Banking	0.15	0.10	0.25	0.15	0.45	0.30	1.00
	Total	0.45	0.10	0.35	0.15	0.35	0.32	1.00
Health		0.10	0.10	0.15	0.10	0.15	0.25	0.65
Tourism								
	Hotels & Rest.	0.05	0.00	0.15	0.10	0.35	0.15	0.15
	Agencies	0.45	0.00	0.15	0.10	0.35	0.15	1.00
	Total	0.15	0.00	0.15	0.10	0.35	0.15	0.41
Transport								
	Int'l Maritime	0.45	0.00	0.65	0.15	0.55	0.25	0.10
	Dom. Maritime	0.45	0.00	0.65	0.15	0.55	0.25	1.00
	Domestic Air	0.25	0.00	0.65	0.15	0.15	0.25	0.60
	Int'l Air	0.25	0.00	0.15	0.15	0.15	0.25	0.10
	Rail	1.00	0.00	0.65	0.15	0.15	0.15	0.65
	Roads	0.45	0.00	0.65	0.15	0.15	0.15	0.60
	Total	0.49	0.00	0.55	0.15	0.23	0.21	0.51
Electricity		1.00	0.20	0.15	0.55	0.80	0.15	0.65
All Services		0.26	0.04	0.23	0.17	0.28	0.22	0.69

**Table A4 continued: Complete Results**

		Ghana	Guatemala	Hungary	India	Indonesia	Jamaica	Kenya
Business								
	Legal	0.25	0.10	0.13	1.00	1.00	0.08	0.38
	Accounting	0.25	0.10	0.13	0.55	1.00	0.13	0.33
	Computer	0.25	0.10	0.13	0.35	0.68	0.13	0.33
	R&D	0.25	0.10	0.13	0.35	0.88	0.13	0.33
	Total	0.25	0.10	0.13	0.60	1.00	0.11	0.34
Communication								
	Fixed	0.25	0.10	0.10	0.35	0.35	0.05	0.53
	Mobile	0.25	0.10	0.10	0.35	0.35	0.05	0.43
	Audiovisual	0.25	0.60	0.10	0.65	1.00	1.00	0.33
	Total	0.25	0.27	0.10	0.45	0.65	0.38	0.43
Construction		0.25	0.10	0.10	0.35	0.68	0.05	0.33
Distribution								
	Wholesale	0.35	0.10	0.10	0.15	0.25	0.05	0.33
	Retail	0.35	0.10	0.10	1.00	0.45	0.05	0.33
	Total	0.35	0.10	0.10	0.60	0.35	0.05	0.33
Education		0.25	0.10	0.20	0.15	0.65	0.13	0.33
Environmental		0.25	0.10	0.10	0.15	0.35	0.05	0.33
Finance								
	Insurance	0.25	0.20	0.15	0.65	0.35	0.45	0.43
	Banking	0.35	0.10	0.15	0.55	0.68	0.05	0.63
	Total	0.32	0.13	0.15	0.58	0.57	0.18	0.56
Health		0.25	0.10	0.10	0.35	0.65	0.18	0.35
Tourism								
	Hotels & Rest.	0.25	0.10	0.10	0.13	0.75	0.13	0.33
	Agencies	0.25	0.10	0.10	0.13	0.75	0.13	0.33
	Total	0.25	0.10	0.10	0.13	0.75	0.13	0.33
Transport								
	Int'l Maritime	0.25	0.10	0.10	0.33	0.35	0.13	0.33
	Dom. Maritime	0.25	0.10	0.10	0.33	0.35	0.13	0.33
	Domestic Air	0.25	0.10	0.50	0.55	0.65	0.05	0.33
	Int'l Air	0.25	0.10	0.50	0.15	0.65	0.05	0.33
	Rail	0.25	0.10	0.10	1.00	0.65	0.05	0.33
	Roads	0.25	0.10	0.10	0.15	0.65	0.13	0.33
	Total	0.25	0.10	0.26	0.47	0.59	0.08	0.33
Electricity		1.00	0.30	0.30	0.15	1.00	0.05	1.00
All Services		0.32	0.13	0.13	0.45	0.61	0.12	0.40

**Table A4 continued: Complete Results**

		Korea, Rep.	Malaysia	Mauritius	Mexico	Mongolia	Morocco	Mozambique
Business								
	Legal	0.20	0.78	0.25	0.15	0.15	0.05	0.20
	Accounting	0.25	0.78	0.25	0.58	0.15	0.55	0.20
	Computer	0.13	0.70	0.23	0.15	0.05	0.05	0.20
	R&D	0.13	0.70	0.35	0.55	0.05	0.05	0.20
	Total	0.18	0.74	0.27	0.36	0.10	0.18	0.20
Communication								
	Fixed	0.63	0.60	0.95	0.75	0.35	0.15	1.00
	Mobile	0.63	0.60	0.35	0.15	0.35	0.05	0.20
	Audiovisual	0.28	0.70	0.35	1.00	0.35	0.05	0.20
	Total	0.51	0.63	0.55	0.68	0.35	0.08	0.53
Construction		0.33	0.20	0.25	0.15	0.15	0.15	0.20
Distribution								
	Wholesale	0.28	0.70	0.45	0.15	0.15	0.05	0.20
	Retail	0.08	0.70	0.45	0.15	0.05	0.05	0.20
	Total	0.18	0.70	0.45	0.15	0.10	0.05	0.20
Education		0.78	0.20	0.35	0.15	0.15	0.05	0.20
Environmental		0.28	0.20	0.35	0.05	0.15	0.05	0.20
Finance								
	Insurance	0.18	0.40	0.23	0.45	0.15	0.05	0.20
	Banking	0.28	0.40	0.23	0.35	0.15	0.05	0.20
	Total	0.24	0.40	0.23	0.38	0.15	0.05	0.20
Health		0.23	0.20	0.15	0.45	0.15	0.05	0.20
Tourism								
	Hotels & Rest.	0.20	0.70	0.50	0.15	0.05	0.05	0.20
	Agencies	0.20	0.70	0.95	0.15	0.05	0.15	0.20
	Total	0.20	0.70	0.62	0.15	0.05	0.08	0.20
Transport								
	Int'l Maritime	0.13	0.70	0.35	0.45	0.15	0.25	0.20
	Dom. Maritime	1.00	0.70	0.35	0.45	0.15	0.05	0.20
	Domestic Air	0.68	0.70	0.35	0.65	0.15	1.00	0.20
	Int'l Air	0.68	0.20	0.35	0.65	0.15	1.00	0.20
	Rail	0.28	0.20	0.35	0.15	0.15	1.00	0.20
	Roads	0.13	0.20	0.35	0.25	0.35	0.25	0.20
	Total	0.49	0.40	0.35	0.43	0.19	0.75	0.20
Electricity		0.53	1.00	1.00	1.00	0.40	0.75	1.00
All Services		0.28	0.54	0.40	0.33	0.15	0.15	0.27

**Table A4 continued: Complete Results**

		Nigeria	Pakistan	Paraguay	Peru	Philippines	Poland	Qatar
Business								
	Legal	0.05	0.53	0.00	0.13	1.00	0.19	0.50
	Accounting	0.05	0.50	0.00	0.15	1.00	0.06	0.50
	Computer	0.05	0.50	0.00	0.13	0.20	0.04	0.50
	R&D	0.05	0.53	0.20	0.15	1.00	0.04	0.50
	Total	0.05	0.51	0.05	0.14	0.95	0.08	0.50
Communication								
	Fixed	0.15	0.75	1.00	0.13	0.60	0.64	0.50
	Mobile	0.05	0.35	0.00	0.13	0.60	0.24	0.50
	Audiovisual	1.00	0.35	0.00	0.53	1.00	0.64	0.50
	Total	0.42	0.48	0.38	0.26	0.80	0.50	0.50
Construction		0.05	0.10	0.15	0.13	0.70	0.04	0.50
Distribution								
	Wholesale	0.55	0.30	0.00	0.13	0.20	0.14	0.50
	Retail	0.55	0.30	0.00	0.13	0.40	0.14	0.50
	Total	0.55	0.30	0.00	0.13	0.30	0.14	0.50
Education		0.05	0.50	0.00	0.13	0.60	0.04	0.35
Environmental		0.05	0.30	0.00	0.13	1.00	0.04	0.50
Finance								
	Insurance	0.05	0.30	0.10	0.13	0.50	0.24	1.00
	Banking	0.15	0.45	0.15	0.18	0.70	0.34	1.00
	Total	0.12	0.40	0.13	0.16	0.63	0.30	1.00
Health		0.05	0.33	0.00	0.13	1.00	0.04	0.35
Tourism								
	Hotels & Rest.	0.05	0.30	0.00	0.13	0.60	0.04	0.35
	Agencies	1.00	0.30	0.00	0.13	0.60	0.04	0.35
	Total	0.31	0.30	0.00	0.13	0.60	0.04	0.35
Transport								
	Int'l Maritime	0.05	0.30	0.10	0.13	0.60	0.04	0.50
	Dom. Maritime	0.05	0.30	0.10	0.13	0.60	0.04	0.50
	Domestic Air	0.05	0.30	0.00	0.63	0.70	0.44	0.50
	Int'l Air	0.05	0.30	0.00	0.63	0.70	0.44	0.50
	Rail	0.05	0.30	1.00	0.13	0.60	0.04	0.50
	Roads	0.05	0.30	0.00	0.13	0.80	0.04	0.50
	Total	0.05	0.30	0.22	0.33	0.68	0.20	0.50
Electricity		1.00	0.50	1.00	0.13	0.70	0.54	0.52

**Table A4 continued: Complete Results**

		Romania	Russian Fed.	Saudi Arabia	Senegal	Slovenia	South Africa	Sri Lanka
Business								
	Legal	0.25	0.15	0.25	0.10	0.08	0.15	0.15
	Accounting	0.00	0.15	0.25	0.10	0.28	0.15	0.08
	Computer	0.00	0.15	0.25	0.10	0.05	0.15	0.10
	R&D	0.00	0.15	0.25	0.10	0.05	0.15	0.05
	Total	0.06	0.15	0.25	0.10	0.11	0.15	0.09
Communication								
	Fixed	0.10	0.65	1.00	0.25	0.25	0.70	0.25
	Mobile	0.10	0.15	1.00	0.20	0.25	0.65	0.45
	Audiovisual	0.05	0.55	0.25	0.10	0.55	0.15	0.45
	Total	0.08	0.45	0.92	0.18	0.35	0.50	0.38
Construction								
		0.00	0.15	0.45	0.10	0.05	0.15	0.05
Distribution								
	Wholesale	0.00	0.15	0.65	0.10	0.05	0.15	0.45
	Retail	0.00	0.15	0.65	0.10	0.05	0.15	0.45
	Total	0.00	0.15	0.65	0.10	0.05	0.15	0.45
Education								
		0.00	0.15	0.25	0.10	0.15	0.15	0.45
Environmental								
		0.00	0.15	0.25	0.10	0.05	0.15	0.05
Finance								
	Insurance	0.10	0.75	0.65	0.15	0.25	0.30	0.45
	Banking	0.23	0.50	0.65	0.15	0.15	0.20	0.45
	Total	0.18	0.58	0.65	0.15	0.18	0.23	0.45
Health								
		0.10	0.20	0.65	0.15	0.08	0.15	0.08
Tourism								
	Hotels & Rest.	0.00	0.20	0.25	0.15	0.05	0.15	0.05
	Agencies	0.00	0.20	0.28	0.15	0.05	0.15	0.45
	Total	0.00	0.20	0.26	0.15	0.05	0.15	0.15
Transport								
	Int'l Maritime	0.00	0.30	0.65	0.10	1.00	0.15	1.00
	Dom. Maritime	0.10	0.30	0.65	0.10	0.55	0.15	0.45
	Domestic Air	1.00	0.70	1.00	0.10	0.65	0.15	1.00
	Int'l Air	1.00	0.70	1.00	0.10	1.00	0.15	0.45
	Rail	0.00	0.15	1.00	0.10	1.00	1.00	1.00
	Roads	0.00	1.00	1.00	0.10	0.05	0.15	0.05
	Total	0.41	0.60	1.00	0.10	0.74	0.35	0.67
Electricity								
		1.00	0.65	1.00	0.20	0.45	1.00	0.65
All Services								
		0.11	0.29	0.62	0.13	0.17	0.24	0.32

**Table A4 continued: Complete Results**

		Tanzania	Thailand	Trinidad- Tobago	Tunisia	Turkey	Uganda	Uruguay
Business								
	Legal	0.18	0.55	0.25	1.00	0.20	0.10	0.00
	Accounting	0.18	0.55	0.15	1.00	0.10	0.10	0.00
	Computer	0.18	0.45	0.15	0.11	0.10	0.10	0.00
	R&D	0.18	0.55	0.15	0.11	0.10	0.10	0.00
	Total	0.18	0.53	0.18	0.59	0.13	0.10	0.00
Communication								
	Fixed	0.18	0.65	0.75	1.00	0.50	0.10	1.00
	Mobile	0.18	0.65	0.35	0.66	0.50	0.10	0.30
	Audiovisual	0.18	0.45	0.35	0.16	0.60	0.10	1.00
	Total	0.18	0.58	0.48	0.66	0.53	0.10	0.83
Construction		0.18	0.55	0.15	0.16	0.10	0.10	0.00
Distribution								
	Wholesale	0.38	0.45	0.15	0.56	0.10	0.10	0.00
	Retail	0.38	0.45	0.15	0.56	0.10	0.10	0.00
	Total	0.38	0.45	0.15	0.56	0.10	0.10	0.00
Education		0.18	0.45	0.15	0.56	0.65	0.10	0.10
Environmental		0.18	0.45	0.15	0.11	0.10	0.10	0.00
Finance								
	Insurance	0.18	0.65	0.15	0.16	0.25	0.15	0.20
	Banking	0.18	0.65	0.15	0.16	0.25	0.15	0.60
	Total	0.18	0.65	0.15	0.16	0.25	0.15	0.47
Health		0.18	0.45	0.15	0.06	0.10	0.10	0.10
Tourism								
	Hotels & Rest.	0.18	0.45	0.35	0.46	0.10	0.10	0.00
	Agencies	0.18	0.45	0.15	0.16	0.10	0.10	0.10
	Total	0.18	0.45	0.30	0.38	0.10	0.10	0.03
Transport								
	Int'l Maritime	0.18	0.45	0.15	0.16	0.50	0.10	0.10
	Dom. Maritime	0.18	0.45	1.00	0.16	0.50	0.10	0.10
	Domestic Air	0.18	0.45	0.15	0.16	0.50	0.10	0.10
	Int'l Air	0.18	0.45	0.15	0.16	0.50	0.10	0.00
	Rail	0.18	0.45	0.15	0.16	1.00	0.10	1.00
	Roads	0.18	0.45	0.15	0.16	0.10	0.10	0.00
	Total	0.18	0.45	0.25	0.16	0.54	0.10	0.24
Electricity		0.18	1.00	0.05	1.00	1.00	0.10	1.00
All Services		0.23	0.53	0.20	0.40	0.23	0.11	0.20

**Table A4 continued: Complete Results**

		Venezuela		All countries
Business				
	Legal	0.83		0.28
	Accounting	0.83		0.27
	Computer	0.83		0.19
	R&D	0.83		0.22
	Total	0.83		0.25
Communication				
	Fixed	0.15		0.48
	Mobile	0.15		0.34
	Audiovisual	0.80		0.46
	Total	0.37		0.44
Construction		0.15		0.18
Distribution				
	Wholesale	0.15		0.23
	Retail	0.15		0.25
	Total	0.15		0.24
Education		0.15		0.22
Environmental		0.15		0.16
Finance				
	Insurance	0.30		0.33
	Banking	0.20		0.33
	Total	0.23		0.33
Health		0.18		0.22
Tourism				
	Hotels & Rest.	0.15		0.19
	Agencies	0.15		0.25
	Total	0.15		0.21
Transport				
	Int'l Maritime	0.15		0.28
	Dom. Maritime	0.15		0.33
	Domestic Air	0.15		0.39
	Int'l Air	0.15		0.35
	Rail	0.15		0.40
	Roads	0.15		0.26
	Total	0.15		0.35
Electricity		0.55		0.60
All Services		0.27		0.28

## References

- Golub, Stephen S. "Measures of Restrictions on Inward Foreign Direct Investment for OECD Countries," OECD Economic Studies, No. 36, 2003.
- Graham, Edward M. Fighting the Wrong Enemy: Antiglobal Activists and Multinational Enterprises, Institute for International Economics: Washington, 2000.
- Hoekman, Bernard, "Assessing the General Agreement on Trade in Services," In Martin, W. and L.A. Winters eds, The Uruguay Round and the Developing Countries, World Bank Discussion Paper 307, 1995.
- Hardin, Alexis and Leanne Holmes, "Measuring and Modelling Barriers to FDI," in Bora, B. ed. Foreign Direct Investment: Research Issues, Routledge: London, 2002.
- Hardin, Alexis and Leanne Holmes, Service Trade and Foreign Direct Investment, Australian Productivity Commission, 1997  
<http://www.pc.gov.au/ic/research/information/servtrad/index.html> ).
- Inter-American Development Bank, Foreign Investment Regimes in the Americas (1997),  
<http://alca-ftaa.iadb.org/eng/invest/PREFACE.HTM>
- Kalijaran, Kaleeswaran, "Restrictions on Trade in Distribution Services," Australian Productivity Commission, August 2000.
- Kemp, S. "Trade in Education Services and the Impacts of Barriers to Trade," in Christopher Findlay and Tony Warren, eds., Impediments to Trade in Services: Measurement and Policy Implications, Routledge: New York, 2001.
- Kobrin, Steven, "The determinants of liberalization of FDI policy in developing countries: a cross-sectional analysis, 1992-2001", Transnational Corporations, Vol 14, No. 1, April 2005.
- Koulen, Mark, Michael Gestrin and Pierre Sauvé, Trade, Investment and the WTO: Issues and Options," mimeo, OECD 2002.
- Markusen, James R. and Keith Maskus, "General Equilibrium Approaches to the Multinational Firm: A Review of Theory and Evidence," NBER Working Paper No. 8344, June 2001.
- McGuire, Greg and Michael Schuele, "Restrictiveness of International Trade in Banking Services," in Christopher Findlay and Tony Warren, eds., Impediments to Trade in Services: Measurement and Policy Implications, Routledge: New York, 2001.
- McGuire, Greg, Michael Schuele, and Tina Smith, "Restrictiveness of International Trade in Maritime Services," in Christopher Findlay and Tony Warren, eds., Impediments to Trade in Services: Measurement and Policy Implications, Routledge: New York, 2001.

- Moran, Theodore H. et al, Does Foreign Direct Investment Promote Development? Institute for International Economics: Washington, 2005.
- Nicoletti, Giuseppe., Stephen Golub, Dana Hajkova, Daniel Mirza and Kwang Yoo, “Policies and international integration: influences on trade and foreign direct investment”, OECD Economics Department Working Papers, No. 359, 2003.
- Nguyen-Hong, Duc, “Restrictions on Trade in Professional Services,” Australian Productivity Commission, August 2000.
- OECD, Investment Policy Reviews (various years).
- OECD, Regulatory Environment for FDI in African countries, 2005.  
<http://www.oecd.org/dataoecd/25/6/34783838.pdf>
- Pacific Economic Cooperation Council (PECC) Survey of Impediments to Trade and Investment in the APEC Region, Singapore: PECC, 1995.
- PriceWaterhouseCoopers, Doing Business and Investing in Countries Worldwide, CD-ROM, 2001.
- Robertson, David, “Multilateral Investment Rules,” in Bora, B. ed. Foreign Direct Investment: Research Issues , Routledge: New York, 2002.
- Sauvé, Pierre and Karsten Steinfaß, “Assessing the scope for further investment regime liberalisation: An analysis based on revealed liberalisation preferences,” OECD unpublished, 2001.
- Sauvé, Pierre and Christopher Wilkie, Investment Liberalisation in GATS: In Sauve, Pierre and Robert M. Stern, GATS 2000: New Directions in Services Trade Liberalisation, Brookings: Washington, 2000.
- UNCTAD Investment Policy Reviews (various years)  
<http://www.unctad.org/Templates/StartPage.asp?intItemID=2554>
- UNCTAD IPR: <http://www.unctad.org/Templates/StartPage.asp?intItemID=2554>
- UNCTAD, World Investment Report 2003.
- UNCTAD, World Investment Report 2004.
- UNCTC 1989, Foreign Direct Investment and Transnational Corporations in Services (New York: United Nations), 1989.
- United States Special Trade Representative, National Trade Estimate Report on Foreign Trade Barriers 2004 <http://www.ustr.gov/reports/index.shtml>.
- United States Department of Commerce, Country Commercial Guides 2004,  
<http://strategis.ic.gc.ca/epic/internet/inimr-ri2.nsf/en/gr00001e.html>

Warren, Tony, “The Identification of Impediments to Trade and Investment in Telecommunications Services,” in Christopher Findlay and Tony Warren, eds., Impediments to Trade in Services: Measurement and Policy Implications, Routledge: New York, 2001.

World Trade Organization, WTO Services Database  
<http://tsdb.wto.org/wto/WTOHomepublic.htm> .