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Applied services trade policy: A guide to the Services Trade Policy Database and the Services Trade Restrictions Index

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World Trade Organization

Economic Research and Statistics Division

Applied Services Trade Policy

**A Guide to the Services Trade Policy Database
and the Services Trade Restrictions Index**

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Abstract

Better information on how services policies vary across economies and sectors over time would improve the empirical analysis of their impact. This paper describes the Services Trade Policy Database (STPD), a joint initiative by the World Bank and the WTO Secretariat, which builds on a database developed by the World Bank nearly ten years ago and draws on a recent OECD database. The STPD offers comparable information on services trade policies for 68 economies in 23 subsectors across five broad areas—financial services, telecommunications, distribution, transportation and professional services, respectively. The STPD features several improvements. First, data are collected according to a newly developed policy classification, consistent with both the earlier World Bank database and the current OECD database, enabling for the first time a comparison of services policies over a significant period and across a large cross-section of industrial and developing economies. Second, the database contains information not just on core trade policies but also on other increasingly relevant aspects, such as licensing conditions and data restrictions. Third, policy restrictiveness is quantified following a more systematic approach that aggregates the information within a single consistent and transparent framework. Building on these innovations will make it possible to identify global patterns of services trade policies as well as secular trends in policy-making over the past decade.

JEL codes: F13, F14, F23, L80

Keywords: services, trade policy, investment, STRI, trade restrictions, quantification

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1 INTRODUCTION

Compared to the vast empirical literature on policies affecting trade in goods, the empirical analysis of services trade policy is still in its infancy.³ A major constraint has been inadequate data on policies affecting services trade. Significant progress has been made over the last decade, at the World Bank and the OECD, in developing cross-country databases on services regulations and policies, and methods to quantify them.

This paper describes a new initiative: the Services Trade Policy Database (STPD) developed jointly by the World Bank and the WTO Secretariat. The Database contains comparable information for 68 economies on services trade policy in five main services sectors – financial services, telecommunications, distribution, transportation and professional services – further broken down into 23 subsectors. It is based on a new comprehensive classification of services trade policies jointly developed by the World Bank and the WTO Secretariat, consistent with both the past World Bank classification and the recent OECD classification. Hence, it offers recent information comparable across a large number of developing and industrial economies and backwards compatible with information for the years 2008-11 in the previous World Bank database.

³ For various examples of studies on the impact of services trade policies, see Borchert et al. (2017); Deardorff and Stern (2008); Findlay and Warren (2010); Fink et al. (2001, 2002); Francois and Wooton (2008); Gönenç and Nicoletti (2000); and Mattoo and Payton (2007).

The difficulty in creating such a database is well known but the task has large potential benefits. Our main reason for presenting a product that is inevitably imperfect and still work-in-progress is to enhance policy transparency and to facilitate further research in this important area. Even in its present form we see this Services Trade Policy Database as playing an important role: in advancing policy reform by facilitating the analysis of services policies; in informing international negotiations by providing data on actual policies; in assisting businesses by creating a first port-of-call for information on the state of access to markets; and in fostering dialogue among relevant stakeholders by making information on policies publicly available. We see this database as providing not a definitive picture of services trade policy, but a step in enhancing the availability of information which might hopefully evolve – through feedback from various interested parties – into a collectively created public good.

The paper describes, in Section 2, the scope of the data, the structure of the Database, the data collection process, and compares this new endeavour with other databases. Section 3 describes the Services Trade Restrictions Index (STRI), which builds on the previous World Bank STRI, and Section 4 presents the Services Trade Policy Database (STPD), which is accessible through the WTO's Integrated Trade Intelligence Portal (I-TIP) interface. The final section discusses implications for future work, including within the overall joint project between the World Bank and the WTO Secretariat.

2 SERVICES TRADE POLICY DATA

Scope and organization of the database

Scope and definition

Trade in services is defined, as is now customary, to include the supply of a service through various modes: on a cross-border basis, through establishing a commercial presence, or through the presence of a natural person.⁴ Accordingly, the Services Trade Policy Database (STPD) contains information on policies and regulations that affect international trade in services across all these modes of supply.

We consider policies and regulations applied by the importing/'host' economy (i.e. the jurisdiction where the services consumer is located), which affect the ability of foreign suppliers to supply services to consumers in that economy.⁵ Various domestic regulations that apply to both domestic and foreign agents are also covered insofar as they affect trade. The database focuses on economies' Most-Favoured Nation (MFN) policies, and contains only limited information on their relatively elusive applied preferential policies.⁶

It is important to delineate the policy data covered by this database from other information that is not (yet) covered. First, the database does not include information on the existing market structure – e.g. the number of firms, their market share – across sectors and economies, which means that our policy measures capture the restrictions on entry into markets but do not capture the extent of competition among domestic and/or foreign firms. Second, we do not collect data on outcome variables such as prices or quality, although we include data on whether those variables are subject to regulation in various sectors. Third, we capture only limited information on the implementation of policies. For instance, we identify certain aspects of the process by which services providers are granted licenses, e.g. whether the requirements are publicly available or whether the regulator has been given discretion to reject authorizations even if criteria are complied with, but some features

⁴ While we do not cover, strictly speaking, "consumption abroad", a mode of delivery that is particularly important in services like tourism, education and health – sectors not covered by the database – we take in fact a broad view of 'cross-border supply', covering measures that apply directly to the consumer, such as the ability to make cross-border payments.

⁵ Consumers must be understood in a broad manner, encompassing both individuals and firms, depending on the service concerned.

⁶ We do not take commitments made in FTAs or other economic integration agreements covering services trade as indication of an applied preferential policy. We mean by the latter policies that in practice treat different trading partners differently. Our experience shows that in many cases, commitments under FTAs have been implemented in a non-discriminatory manner, and led either to the binding of an MFN-based status quo policy or to the elimination of specific restrictions for all trading partners. See Marchetti and Roy (2009).

of the process remain opaque. For example, information on how discretion is exercised in practice, or on the number of licence applications received versus the number of licences granted, is not generally available; the lack of such information renders it hard to determine whether the licensing/authorization process in itself offers protection to domestic providers.

Economies covered in the database

The database encompasses data on services policy and regulation in 68 economies – 41 high-income, 15 upper-middle and 12 lower-middle income economies. The selection of economies was based on two parameters: size of the economy, using Gross Domestic Product (GDP) as a basis, as well as participation in world services trade on a balance-of-payment (BoP) basis.⁷ The full list of economies currently covered is reproduced in Annex 2 to this paper (2016 table). At the time of writing, data collection is being finalized for signatories of the Central European Free Trade Agreement (CEFTA), Jordan and Niger. Additional data on a significant number of economies in Africa are in the process of being collected or updated. These data will be incorporated in the STPD in due course.

Sectoral coverage

The sectoral coverage is identical to that in the World Bank survey of 2008-2011. Apart from the continued importance of these sectors and sub-sectors for any economy – a factor that justified the World Bank's approach at the time – sticking to the same sectoral coverage in 2016 has allowed us to have a 'time' dimension in our data, and hence analyse policy developments in the last decade. However, three subsectors were added to ensure greater comparability with the sectors that overlapped with those in the OECD Services Trade Restrictiveness Regulatory (OECD STRI) database.⁸ The database therefore covers 5 major service sectors, further disaggregated into a total of 23 subsectors, namely: financial services (commercial banking, life insurance, non-life insurance, reinsurance), telecommunications services (fixed-line, mobile, Internet), distribution services (retail, wholesale), transportation (air freight domestic, air freight international, air passenger domestic, air passenger international, rail freight, road freight, maritime freight transport, maritime auxiliary services, maritime intermediation and other), professional services (accounting, auditing, legal services on foreign law, legal services on domestic law, legal advice and representation).⁹

Classification of measures

Drawing from the World Bank's experience with its original Services Trade Restrictions Database (STRD) and developments since then, notably the OECD STRI, we developed a new classification of measures affecting trade in services. We organized measures into four main policy categories, namely a) conditions on market entry, b) conditions on operations, c) measures affecting competition, and d) regulatory environment and administrative procedures. Relevant policy measures that potentially affect trade but do not fit neatly into any of these four categories are included in a fifth category – miscellaneous measures (see Box 1).

⁷ Data on trade through mode 3, e.g. foreign affiliates trade, are not available for all countries.

⁸ <https://www.oecd.org/trade/topics/services-trade/>

⁹ At the time of writing, policy information in additional sectors including architecture, engineering, computer, construction, tourism, and health services is being collected for the seven CEFTA Parties, Jordan, and other African economies.

Box 1: Structure of STPD classification of measures

A Conditions on market entry

- A1 *Legal forms of entry (including foreign equity limits)*
- A2 *Quantitative measures (for firms and natural persons)*
- A3 *Conditions on licensing/investment screening/qualifications relating to market entry (firms /natural persons)*
- A4 *Other conditions on market entry*

B Conditions on operations

- B1 *Conditions on supply of services*
- B2 *Conditions on service supplier*
- B3 *Conditions on government procurement*
- B4 *Other conditions on operations*

C Measures affecting competition

- C1 *Conditions on conduct by firms*
- C2 *Governmental rights/prerogatives (including public ownership)*
- C3 *Other measures affecting competition*

D Administrative procedures and regulatory transparency

- D1 *Administrative procedures*
- D2 *Regulatory transparency (including licensing)*
- D3 *Nature of regulatory authority (measures related to nature of regulator)*
- D4 *International standards*
- D5 *Other regulatory environment and administrative procedures*

E Miscellaneous

- E1 *Miscellaneous measures*
- E2 *Other miscellaneous*

All measures are classified according to the taxonomy above in binary form (yes or no), except for the few measures that require a quantitative reply (e.g. level of foreign equity allowed, number of days required to process a licence application). The modal dimension was built into each of the policy categories. Thus, each policy category includes measures relevant for each mode of supply; for example, category A (conditions on market entry) includes the measures affecting entry through each of the modes of supply, i.e. cross-border, commercial presence and presence of natural persons.

The first category focuses on the measures affecting foreign service suppliers' ability to enter the host economy's market to supply services. Typical measures include quantitative limitations or economic/labour needs tests on the number of providers, Foreign Direct Investment (FDI) screening, foreign equity limitations, or requirements to adopt specific types of legal form. Category A also includes specific licensing and qualification requirements that are pre-requisites for entry, such as registration, the need to obtain a sectoral licence, or specific education/training/experience requirements. While the distinction between entry and operational requirements is not straightforward, we may think of category A as encompassing those requirements that must be fulfilled by the supplier before it may actually start to operate in a foreign market.

Category B covers conditions on operations, focusing on two main aspects: 1) conditions on the supply of services – in other words, measures affecting 'how' the services must be supplied, i.e. types of services that may be supplied, through how many outlets, in which locations, at what prices, etc.; and 2) conditions on the service supplier – in other words, measures affecting the 'production' of services, e.g. local content and performance requirements. Measures affecting government procurement of services are also captured in category B.

Category C covers measures related to competition. While this category and the next could arguably be part of conditions on operations, we treat them as separate to ensure compatibility with the OECD

database. This category encompasses measures that grant rights or prerogatives to state-owned suppliers, as well as measures aimed at countering anticompetitive behaviour or restrictive business practices.

Category D deals specifically with the regulatory framework and administrative procedures, focusing on non-discriminatory regulations – other than those already covered elsewhere in the classification – that may still have an impact on trade in services. Conscious of the efforts of governments to establish disciplines in new areas, we strove to include measures pertaining to the regulatory framework (e.g. licensing requirements and procedures, review mechanisms, regulatory transparency) as well as measures affecting cross-border data flows. Issues such as regulatory transparency, the nature of the regulatory authority, the application of international standards, or administrative procedures and requirements are captured by this category.

In addition, the classification identifies within each sub-category, whether measures discriminate against foreign provision or not. The latter is done by allowing for the inclusion of measures which are discriminatory by nature (e.g. foreign equity limitations), and by distinguishing, whenever relevant and to the maximum extent possible, between measures that apply to all services and service suppliers as opposed to those applying to foreign ones only.

The meta-classification of measures described above is intended to facilitate convergence towards a single classification and quantification methodology. Therefore, the classification remains, at the measure level, fully compatible with the classification utilized in the OECD Services Trade Restrictiveness Regulatory Database and the previous classification of measures developed by the World Bank ten years ago.

Data collection methodology

For the purposes of data collection, economies and information sources were divided into two groups. For the 43 economies that had been already included (in 2016) in the OECD STRI Database, the data were sourced from that database, thanks to the cooperation of the OECD Secretariat, which is gratefully acknowledged.¹⁰ In a few cases, where information on certain measures in our database was not available from the OECD, other secondary sources were used. For the remaining 25 economies included in this analysis, data were collected through a survey jointly conducted by the World Bank and the WTO – the WB/WTO Survey on Impediments to Services Integration. In what follows, we will concentrate on the data-collection methodology used for the latter group.

For each of the 25 economies covered in the WB/WTO survey, we prepared 24 questionnaires: 23 (one per subsector) containing the common and sector-specific questions plus one containing general questions. Each subsector questionnaire consisted of around 160 questions. The questionnaires were completed by local law firms that were familiar with the policy regime in the respective economies and sectors and had experience in working on similar projects. The complete list of law firms that contributed to the questionnaires is contained in Annex 7.

The general questions focus on *economy-wide measures* that are described in a single law or regulation applicable to all services sectors in the same way. Such measures include, among others, those pertaining to acquisition and rental of land and real estate by foreigners, notification and screening of foreign investment, restrictions on payments and transfers, conditions on visas, restrictions on cross-border data flows, etc. The common questions cover measures that are potentially pertinent for all sectors of the economy, but that are dealt with in *sector-specific legislation* (and not in generally-applicable legislation, as in the case of general questions), such as the existence of a regulatory authority, forms of establishment and ownership conditions, licensing, quantitative limits, universal service obligations, prices, subsidies, government procurement matters and many others. In other words, these are measures that are pertinent for auditors, bankers, airlines and retailers alike, wishing to supply their services in any foreign jurisdiction. Even though the measures listed above are relevant for every subsector, responses to questions on these

¹⁰ We are very grateful to the OECD Secretariat for its long-standing cooperation in our effort to put together the Services Trade Policy Database, which involved sharing information from the OECD regulatory database for the year 2016, and clarifying diverse aspects regarding the collection and comparability of data. For further information on the OECD data collection process, including the validation of information, see <https://www.oecd.org/trade/topics/services-trade/>.

measures as well as the legal basis for those responses will be sector-specific. That is, we will get different answers to a question on a foreign equity limit for firms operating in commercial banking, retail distribution and rail transport services sectors. By legal basis we understand host economy's domestic laws and regulations laying down the statutory foundation for the specific measure - say, applicable quotas or price setting conditions - in every sector. Finally, the questionnaires include sector-specific questions, aimed at capturing specific aspects of sectoral regulation. These questions address measures such as limits on the expansion of the ATM network for foreign banks, dialling parity requirements from dominant suppliers of fixed-line telecommunications, whether foreign retailers are authorized to set up their own recycling systems. Each subsector questionnaire consists of a different number of sector-specific questions.

Each question has its own answer type. Most questions call for a binary-type of answer, i.e. "yes" or "no", whereas a few others require a numerical answer (for instance, a question on the duration of stay initially allowed for intra-corporate transferees), or a textual answer. Every binary response could be further complemented with *comments* (i.e. relevant additional information on the issue raised by the question) and information on the relevant *legal source*, including, whenever available, relevant weblinks.

As the focus of the questionnaire is on the treatment granted to *foreign* services and service suppliers, wherever relevant survey questions address the existence of discriminatory and/or preferential treatment. Put differently, for some questions a respondent will be prompted to indicate whether the treatment of foreign suppliers differs from that of domestic services and service suppliers; and whether any preference has been granted to services and service suppliers originating in specific jurisdictions by virtue of a Free Trade Agreement (FTA) or any other preferential arrangement. As much as possible, we tried to identify and capture 'actual' preferential treatment, i.e. treatment incorporated in specific regulations/guidelines as the result of (or linked to) specific FTAs.

Detailed guidelines were developed to ensure the coherence of the data collected. These guidelines enabled us to ensure consistency and reliability of information. The questionnaires were deployed online. As every law firm was given their specific token number, they could complete the questionnaires at their convenience during a six to seven weeks' time period. After having received the completed questionnaires, we reviewed them and sent our feedback back to the law firms.¹¹ Law firms made necessary adjustments or clarifications to the responses in light of our comments. These revised replies were further reviewed and, if needed, a second round of feedback was sent to the law firm.

Comparing policy information over time

Throughout the process we paid particular attention to introducing a time dimension into our analysis. This was only possible for subsectors, modes and key restrictions for which information is available in both periods (2008-11 and 2016, respectively). The 2016 key restrictions and the resulting 2016 STRI were the starting point of the analysis. That required some adjustments to the 2008-2011 information. Thus, where there was a change in the score between 2008-11 and 2016, we checked the available documentation and adjusted the data as appropriate. In cases where we had not been able to identify the relevant measure for 2008-11, and with a view to ensuring that we included only documented changes in restrictiveness between the two periods, we neutralized that measure by imputing the 2016 value into the 2008-11 dataset. We recognize that this approach may lead to an underestimation of the extent of change in policies.

Relationship to other databases

The Services Trade Policy Database (STPD) builds on a number of prior initiatives by international and regional agencies. The first precedent is the GATS services database of WTO Members' specific commitments and list of exemptions, which was established in the late 1990s.¹² This database is analogous to the database on bound tariffs in the context of goods trade. With the rapid increase of regional and bilateral agreements by some WTO Members in which commitments were closer to applied policies, new datasets were built which provided a better sense of the policies at the time

¹¹ Our team went through 672 questionnaires (23 subsectors questionnaires* 28 economies + 28 general questionnaires)

¹² See GATS module in ITIP Services, <http://i-tip.wto.org/services/default.aspx>.

these agreements were signed. However, unlike the applied tariffs database that accompanied the bound tariffs database, no database was initially available on services applied policies.

Prior to 2008, information on applied services trade policies could be found in national (e.g. US International Trade Commission), regional (APEC STAR database), supranational (European Commission) or international databases (e.g. UNCTAD or OECD databases on investment policies).¹³ Some information could also be gathered from the WTO's trade policy reviews. However, these sources only provided a partial picture, in terms of the type of information, and the economies, sectors and modes covered.

It was only in 2008 that the World Bank went a step further by collecting and compiling information on applied services policies (Borchert et al., 2012, 2014). The World Bank released its Services Trade Restrictions Database in 2012, presenting data on applied measures for 103 economies and 5 main sectors (financial services, telecommunications, retail trade services, transportation and professional services), which were further broken down into 19 subsectors.¹⁴ Data mainly referred to the year 2008, with data for a number of economies updated in 2011. The database presented 4 tabs reflecting the STRI, the key restrictions, the main policy measures and policy measures at the most detailed level collected in the questionnaire. The last tab included information that was broken down into 9 categories of policy measures, namely Sector openness, Forms of entry, Licensing, Operations, Regulatory Environment, Conditions of provision of service, Restrictions on service providers, Type of entry and Entry condition.

The OECD developed a regulatory database as a basis for its own STRI, which was publicly released in 2014 (OECD, 2015, 2017).¹⁵ The database currently includes information on the 36 OECD members, as well as 9 non-OECD economies (Brazil, China, Colombia, Costa Rica (since 2017), India, Indonesia, Malaysia (since 2018), the Russian Federation and South Africa, respectively). Measures for 22 sectors are presented, organized according to five policy areas (Restrictions on foreign ownership and other market entry conditions, Restrictions on the movement of people, Other discriminatory measures and international standards, Barriers to competition and public ownership, and Regulatory transparency and administrative requirements). The database has been updated annually since 2014.

In 2013, the World Bank and the WTO Secretariat started the development of a WTO-World Bank Services Trade Policy Database (STPD), which is disseminated through the I-TIP services portal.¹⁶ For further information on the actual database and its functionalities, please refer to section 4 below.¹⁷

3 MEASURING SERVICES TRADE POLICY RESTRICTIVENESS

It is notoriously difficult to measure policies affecting services trade because of their variety and complexity (see, for example, Hoekman (1996) and the overview by Deardorff and Stern (2008)). In recent years a number of methods have been developed to assess the level of applied policies in services. Two approaches related to the creation of an index measuring the restrictiveness of service

¹³ See <https://www.usitc.gov/>, <http://www.servicestradeforum.org/>, http://madb.europa.eu/madb/barriers_crossTables.htm, <https://investmentpolicyhub.unctad.org/> and <http://www.oecd.org/investment/fdiindex.htm>. See also Golub (2009); and Reisman and Vu (2012).

¹⁴ <https://www.worldbank.org/en/research/brief/services-trade-restrictions-database>

¹⁵ <http://www.oecd.org/trade/topics/services-trade/>

¹⁶ In 2013, the World Bank and the WTO signed a Memorandum of Understanding concerning the establishment of a unique database on services policies, covering commitments taken by WTO Members in various agreements, applied regimes and services statistics. This cooperation between the two organizations materialized in I-TIP Services, the services component of the Integrated Trade Intelligence Portal (I-TIP), which was released in 2013. The main objective of the integrated database is to make it easier for WTO Members and other stakeholders to access the various types of information relevant for services trade policy-making, see <http://i-tip.wto.org/services/default.aspx>.

¹⁷ I-TIP Services offers information on trade in services policies for a large sample of economies spanning all income groups. In its four modules (GATS, RTA Commitments, Services Trade Policy Database (STPD), and Statistics), the integrated database permits searches by economy (mainly WTO Members), subsector, agreement, or source of information. Search results are presented in summary form, as well as in more detail. Search results can be filtered using a number of additional criteria. Further, users can easily switch from one module to another, for example from looking at a particular economy's WTO commitments in a given subsector, to relevant commitments in RTAs, and then to applied policies and related services statistics.

trade policies are worth noting: the first one, the Services Trade Restrictions Index (STRI) was developed by the World Bank; global patterns of policy restrictiveness revealed by that exercise were described in Borchert et al. (2014) and the Database is documented in Borchert et al. (2012). The data were released on the World Bank's Open Data portal.¹⁸ The second method, named Services Trade Restrictiveness Index (also STRI by its acronym) was developed by the OECD, and results were first published in 2014 (Grosso et al. 2014). Although both approaches use similar sets of underlying data, the methodology used to construct the respective indices differs in a number of ways.¹⁹ Yet both STRI approaches measure the restrictiveness of an economy's policy regime for the sectors and modes covered. The resultant restrictiveness indices depict overall patterns in policy, across economies, modes, and sectors.²⁰

The method used in the current paper is an updated version of the STRI developed by the World Bank a few years back. In updating the World Bank STRI, the main principles were maintained but a number of improvements were introduced, in particular the use of an algorithm and an automatized aggregation method to compute the STRI. Introducing these technical improvements removes the subjective bias that may have existed in the previous World Bank STRI. In particular, the aggregation methodology represents an innovation for practical and conceptual reasons: it entails the practical advantage of reproducibility as well as the conceptual advantage of capturing the combined restrictiveness of multiple measures in a well-defined and theory-consistent way. An additional improvement relates to the consideration of regulatory and competition policy measures. This improved methodology will be described below.

Basic principles

The construction of the STRI follows the same steps as in Borchert et al. (2012):

- 1) the **selection** of key restrictions entering the STRI;
- 2) the **determination** of the level of restrictiveness of individual measures (or bundles of measures if they are conceptually intertwined, which we call 'synthetic measures'); and
- 3) the **aggregation** of measures into indices at the sector-mode level, sector level, and economy level, respectively.

While the Services Trade Policy Database (STPD) described in the previous section has a very broad coverage of measures, the index is based on a subset of key restrictions on trade in services, approximately 115 regulations and policies. The selection of key restrictions entering the quantification exercise was driven by a number of considerations: 1) to cover the most significant restrictions – this was based on the previous analysis conducted by the World Bank as well as expert advice; 2) to respond to recent regulatory developments perceived as having a discernible impact on trade in services, e.g. screening policies, restrictions relating to cross-border data flows; 3) to ensure comparability with the 2008-2011 World Bank exercise; and 4) to adapt to – and be consistent with – the coverage of measures in the OECD database, which served as a fundamental source of information for economies covered by both the STPD and the OECD STRI. The list of measures selected for the construction of the STRI is provided in Annex 5.

Trade policies are assessed by looking at specific types of measures for each subsector and mode. For example, for commercial banking, we obtain separate measures for cross-border supply, commercial presence and the presence of natural persons. We assign a score depicting the level of restrictiveness to each measure (see following subsection on scoring).²¹

¹⁸ Accessible at <https://www.worldbank.org/en/research/brief/services-trade-restrictions-database>.

¹⁹ Country and sectoral coverage of both exercises also differ. More information on the OECD STRI methodology may be found in *Services Trade Policies and the Global Economy*, OECD (2017).

²⁰ As opposed to bottom-up scoring methods described in the text, inference-based approaches have also been pursued, which attempt to quantify the degree of restrictiveness by estimating the effect of regulatory measures on outcome variables of interest, e.g. gravity-type regressions of services trade flows on restrictiveness indices. When a price elasticity of demand is available, it is possible to convert such quantity-based estimates to ad valorem tariff equivalents of barriers. While the outcome variables are often sector-specific, e.g. the number of telephone mainlines in telecommunications, Dihel and Shepherd (2007) employ a sector's price-cost margin, which enables them to consistently estimate the effect of trade-affecting measures across a range of services sectors.

²¹ In that regard, some measures that would affect operations of service providers do not contribute to overall restrictiveness when other measures prohibit market entry in the first place, so that conditions of

While policy measures that underlie the STRIs are generally limited to discriminatory measures, the index also considers other policy measures regarding a sector's overall regulatory environment, such as the obligation to inform applicants of reasons for license rejection or the ability to appeal a regulator's decision.

After having determined the restrictiveness of individual measures in isolation (or synthetic measures, as discussed below), the next step is to deduce policy restrictiveness of a group of applied measures, since multiple measures are typically applied per subsector-mode. The process of determining overall restrictiveness is described in detail below. We will call the result of that algorithm an STRI. Most policy regimes have more than one provision in place per subsector and mode of supply, in which case the assigned score reflects the overall restrictiveness of all measures.

The STRI focuses on a subset of measures as explained above, and in the absence of any such restrictions, the STRI takes the value of zero, which is associated with the greatest level of openness. However, the STRI does not fully cover other policy areas, such as the state of prudential and pro-competitive regulation. Since it is likely that the results of liberalization depend on the state of such complementary regulation, a zero level of STRI is not necessarily immediately desirable from a broader welfare or development perspective.

Scoring

General scoring rules

For each individual measure, we generally consider 6 distinct levels of restriction, each of which attracts a different (monotonically increasing) score:

1. not restrictive;
2. minimal procedural/transparency issues;
3. minor restriction;
4. "intermediate" category to reflect measures that are neither minor nor major restrictions;
5. major restriction;
6. service provision not possible.

Table 1 provides examples of concrete policy measures and associates a score to measures for each stage.

operations are in fact irrelevant. For example, the potentially restrictive impact of applying a labour market test (LMT) on intra-corporate transferees is only considered for STRI purposes in instances in which mode 4 entry via intra-corporate transferees is in fact permissible at all. Individual measure scores will take into account whether or not a restriction is logically contingent on other measures.

Table 1: Examples of measures, level of restriction and associated score

Level of restriction	Examples	Score
Not restrictive	No restriction on the type of legal entity, no foreign equity limitation	0
Not restrictive, but minimal transparency issue	No provision for prior notice of, or comment on, regulatory changes	0.125
Minor restriction	Acquisition of land and real estate by foreigners prohibited	0.25
Neither minor nor major	Limit on number of suppliers	0.5
Major restriction	Service provision is reserved for statutory monopoly or granted on an exclusive basis	0.75
Closed	Commercial presence is prohibited	1

While in Borchert et al. (2012), five numerical levels of restriction were used (0, 0.25, 0.5, 0.75, 1), this time we decided to use six numerical levels, by adding 0.125 in between 0 and 0.25. The objective was to accommodate those regulatory measures that were not included in the previous World Bank dataset (e.g. publication of draft regulation and opportunity to comment). The aim is to take account of measures that are aspects of the regulatory environment rather than restrictions, not even minor ones, in regard of the actual supply of services but that can nevertheless adversely affect the policy or regulatory environment in which firms operate.²²

The full list of measures and associated scores is provided in Annex 5. In addition to mapping scores directly to individual measures, more sophisticated rules are applied for certain measures (e.g. numeric type measures), or some combinations of entry measures (e.g. taking into account the complementarity or substitutability between individual mode 4 categories, and the necessity to consider additional measures if certain conditions are met). This section will present the methodology that applies to some of those specific cases.

Numeric type measures

In the set of measures that we consider in the scoring for mode 3, we include two numeric type measures linked to the foreign ownership of firms, namely the maximum foreign ownership allowed in greenfield investment (%) and the maximum foreign ownership allowed in the acquisition of a domestic entity (%). Foreign equity limits are a continuous variable ranging from zero (no foreign equity allowed), to 100% (full foreign ownership allowed). Given that there are two types of foreign equity limits (greenfield and acquisition), the maximum score available for each is 0.5. These measures are scored in five different ways depending on the maximum foreign ownership allowed, as shown below.

100% allowed	0
Between 50 and 99% allowed	0.125
Between 26% and 49% allowed	0.25
Between 0% and 25% allowed	0.375
0% allowed	0.5 ²³

²² Sometimes policies apply in a more granular fashion than may be captured by our definition of measures or sectors. In this case we prorate the impact. The leading case is when a measure affects only parts of a market that we define as a subsector, e.g. only deposit taking is allowed in commercial banking, or, for non-life insurance, restrictions apply only to automobile insurance, which however is only one segment of non-life insurance. In such cases we record the restrictiveness in the pertinent or closest measure but reduce the score of that measure appropriately so as to reflect the fact that the restrictiveness affects only part of the service supplying activity.

²³ If other forms of commercial presence can be used to provide the service for certain sectors (e.g. branches, sole proprietorship, partnership), then the restrictiveness scores assigned are adjusted proportionally to the relevance of this form in the supply of services through mode 3. See subsection on synthetic measures and Annex 5 for more information.

Another numeric type measure is the percentage of insurance to be ceded to a domestic re-insurer. From 0 to 20% a score of 0.25 is used, whereas the score is 0.5 from 21 to 100%. The same rule is applied for both modes 1 and 3.

Synthetic measures

Assigning a restrictiveness score to a single measure is insufficient in some special circumstances, which we explain in this subsection. This case arises when policies that we record as separate measures are intertwined and, hence, their restrictiveness can only be assessed by considering the entire bundle of such measures. We call such bundles 'synthetic' measures as they consist of two or more individual measure that are separate entries in the database, but whose impact on restrictiveness is scored jointly for the purposes of constructing the STRI. Only when the assessment of restrictiveness, i.e. scoring, is complete at the measure level including synthetic measures, does the process of aggregation start, which we describe a dedicated section below.

Among important examples of intrinsically linked measures are alternative routes of market entry. Indeed, in mode 3 foreign suppliers can in principle enter through mergers and acquisitions or via greenfield investment, and it does not make much sense to score restrictions for each route in isolation, for they represent alternative options. Rather, the difficulty of entering a market is most plausibly assessed by looking at the admissible *combinations* of entry options, rather than individual routes. Notice that the scoring rules for assessing such bundles of measures are sector-specific. For instance, branch entry has to be considered as an important option in financial services but is practically irrelevant in most other sectors. As a result, the rule that assigns a sliding scale of restrictiveness scores to all possible combinations of entry measures has to be different in financial services subsectors compared to other sectors in which fewer or different options exist.

The approach of assigning a specific score to each individual combination of a bundle of measures affords the flexibility to account for the fact that some combinations are more restrictive than others. For example, in a sector in which investors would typically enter by acquiring an existing firm, the policy regime of allowing greenfield but barring M&A will attract a higher restrictiveness score than the converse case of prohibiting only greenfield investment. In other words, simply counting the number of restrictive measures per bundle is not enough.

Table 2 presents an example for the case of Mode 4, in which entry is possible either as an Intra-Corporate Transferee (ICT), as a Service-Supplying Employee (CSS) of a firm based abroad, or as an Independent Professional or self-employed (IP), respectively. The table illustrates three features of scoring synthetic measures: (i) the complete scoring of all possible combinations of constituent measures, (ii) the sliding scale of restrictiveness ranging from full flexibility of entry across these categories of natural persons to complete market closure, and (iii) the nuance that restrictions on the same combination of entry categories can have a different restrictive impact in different services subsectors, depending on the prevailing business practices (shaded cells).

Table 2: Scoring of Mode 4 entry by category of natural persons

Combination of measures applied	Score of synthetic measure	
	Freight transport	Professional services
ICT, CSS and IP all allowed	0	0
Only ICT not allowed	0.25	0.25
Only CSS not allowed	0.25	0.25
Only IP not allowed	0.25	0.25
Both ICT and CSS not allowed	0.50	0.50
Both ICT and IP not allowed	0.50	0.75
Both CSS and IP not allowed	0.75	0.50
Neither ICT, CSS nor IP allowed	1.00	1.00

Lastly, notice that the sliding scale of scores for "entry" bundles would ordinarily stretch the full range from zero to one for combinations of entry measures. But it will attain a maximum of lower than one (typically 0.75 or 0.50) for combinations of quantitative measures that, even if all were

applied, would **not entirely** close off a sector-mode (e.g. combination of ENT, LMT or other quotas for mode 4 entry, assuming that such entry is allowed in the first place).

Aggregation

In the first version of the World Bank database (2008-11), the associated STRI relied on an assessment of groups of measures, which were included in a ‘policy summary’. The automatised aggregation methodology described here follows a similar approach. The overall restrictiveness of a group of policy measures, say at the sector-mode level for a given economy, results both from the **types** of measures applied as well as from the **number** of measures applied. The severity of measures is captured directly in the scores assigned to individual measures, as shown in Table 1. A major restriction, such as a quantitative limit, may attract a score of 0.5 whereas a minor measure affecting only transparency would be scored much lower (0.125). In a second step, the set of individual measure scores needs to be aggregated for a given sector-mode or even an entire economy.

Aggregation of this kind is a challenge in a wide range of fields. In consumer theory, individuals aggregate the utility from the consumption of a bundle of goods. In production theory, firms produce a good by combining a range of intermediate inputs. In each case, the aggregation of utility or inputs is achieved by a mapping—the utility function or the production function, respectively—that exhibit well-established properties. In particular, the marginal contribution of an additional unit to the aggregate (utility, output, or indeed restrictiveness) is typically positive but smaller than that of a previous unit.

One of the most widely used mappings in economics for both utility and production functions is the ‘Constant Elasticity of Substitution’ (CES) functional form, which generically combines an array of $i = (1, \dots, N)$ elements x_i according to $X = \left(\sum_{i=1}^N x_i^\alpha \right)^{1/\alpha}$.²⁴

A function of the CES type, commonly used as a utility or production function, also has desirable properties for aggregating policy restrictiveness. For instance, adding a restrictive measure to a set of other restrictive measures should increase the overall restrictiveness index. At the same time, adding -say- a tenth restriction to a set of nine restrictions should conceivably have less of an impact on overall restrictiveness than applying the first or second restriction to an otherwise open sector. This is the equivalent of ‘diminishing returns,’ such that adding more restrictions should add progressively less and less to the overall index number.

Against the backdrop of these intuitive underpinnings, we combine individual measure scores m_i at level k according to

$$\text{STRI}^k = \left(\sum_{i=1}^N \left(m_i^{(k)} \right)^\rho \right)^{1/\rho} \quad (1)$$

The parameter ρ governs the way in which constituent scores are combined. Specifically, it determines the marginal contribution of adding another non-zero measure to the set of policies to be aggregated. By virtue of the functional form in equation (1), higher values of ρ lead to smaller incremental contributions of additional measures to aggregate restrictiveness. Figure 2 illustrates the role of this parameter on a set of 10 individual measures with a score of 0.25 each, for alternative values of ρ ranging from 1 to 10. It is readily seen from equation (1) that for unit values of ρ , the aggregate score is the simple sum of constituent scores, i.e. 2.5. For high values of ρ , the aggregate score of a group of individual measures with a score of 0.25 each will be only marginally above 0.25. For values of ρ around 3, the aggregate score is slightly above 0.50. Column 2 of Table 3 shows the aggregate score that emerges for different combinations of measures with a value for $\rho = 3$.

²⁴ The parameter ρ takes on different interpretations according to the context in which the function is used; for instance, in consumer theory it is related to σ , the elasticity of substitution amongst products consumed.

Table 3: Examples of aggregating different sets of policy restrictions ($\rho = 3$)

Example set of measure scores (m_i)	Aggregate index (STRI ^k)	Comment
0+0+0+0.50	0.50	The aggregate STRI is driven by actual restrictions and independent of the number of measures <i>not applied</i> in a given context.
0.50+0.50	0.63	Adding a major restriction (0.5) to an already existing major restriction increases restrictiveness, but by less than 0.5.
0.50+0.50+0.50	0.72	The marginal contribution to restrictiveness is falling: the second 0.5 measure adds 0.13 and the third 0.5 measure adds 0.09. Taken together, the presence of three such restrictions is roughly equivalent to the presence of one very restrictive measure that would be scored 0.75 on a stand-alone basis.
0.25+0.25+0.50	0.54	With two 0.5 measures in place, adding a third such measure adds merely 0.09 to overall restrictiveness (previous row), whereas with two 0.25 measures in place (aggregating to 0.32), adding a 0.5 measure adds 0.22, commensurate with the fact that this addition renders the bundle considerably more restrictive. Viewed from a different angle, adding two minor 0.25 measures to a pre-existing 0.5 measure leaves restrictiveness virtually unchanged, because minor restrictions matter less in the presence of a major restriction.

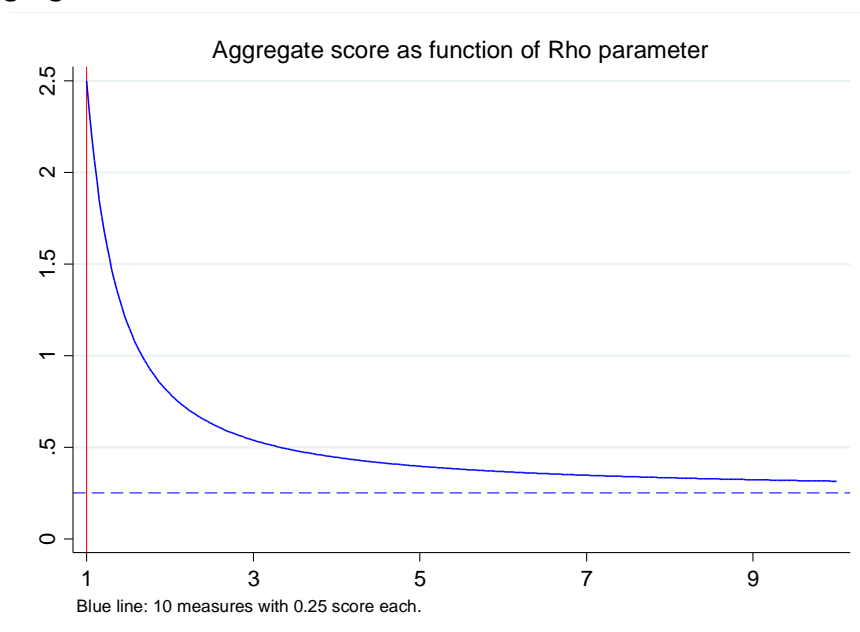
Large values of the ρ parameter are appropriate for aggregation if the policy measures in question are mostly substitutable. For instance, different forms of quantitative market entry limitations such as quotas and economic needs tests are likely to exert a similar effect on market entry. If a quota already applies to entry in a given sector and mode, then applying an economics needs test may not increase overall restrictiveness by much, since the main contribution to restrictiveness is already captured by the quota measure. This result will be achieved by aggregating both measure scores with a high value of ρ . More generally, measures with similar effects that could be considered at least in part substitutes should be combined using a high value of ρ .

Conversely, measures that are regarded as adding significantly to the restrictiveness of already applied measures, e.g. operational restrictions that apply after any market entry limitations, would call for a lower value of the aggregation parameter, ρ .

As is well known, CES functions of the type outlined in equation (1) can be nested to accommodate different layers of aggregation, with each nest potentially having a different CES parameter.²⁵ We take advantage of this modular property and break the aggregation of scores across the universe of all measures into several steps, so that bundles of policy measures that bear a similar relationship with each other in terms of substitutability or complementarity correspond to a CES nest with a suitably chosen parameter.

²⁵ For instance, in modelling production processes, it is not uncommon to have an upper-layer Cobb-Douglas version for combining a numeraire good with a bunch of differentiated intermediate inputs, which emerges in equation (1) as the limit case of ρ going to zero, and another nest that would aggregate the differentiated inputs using the CES structure within that Cobb-Douglas aggregator.

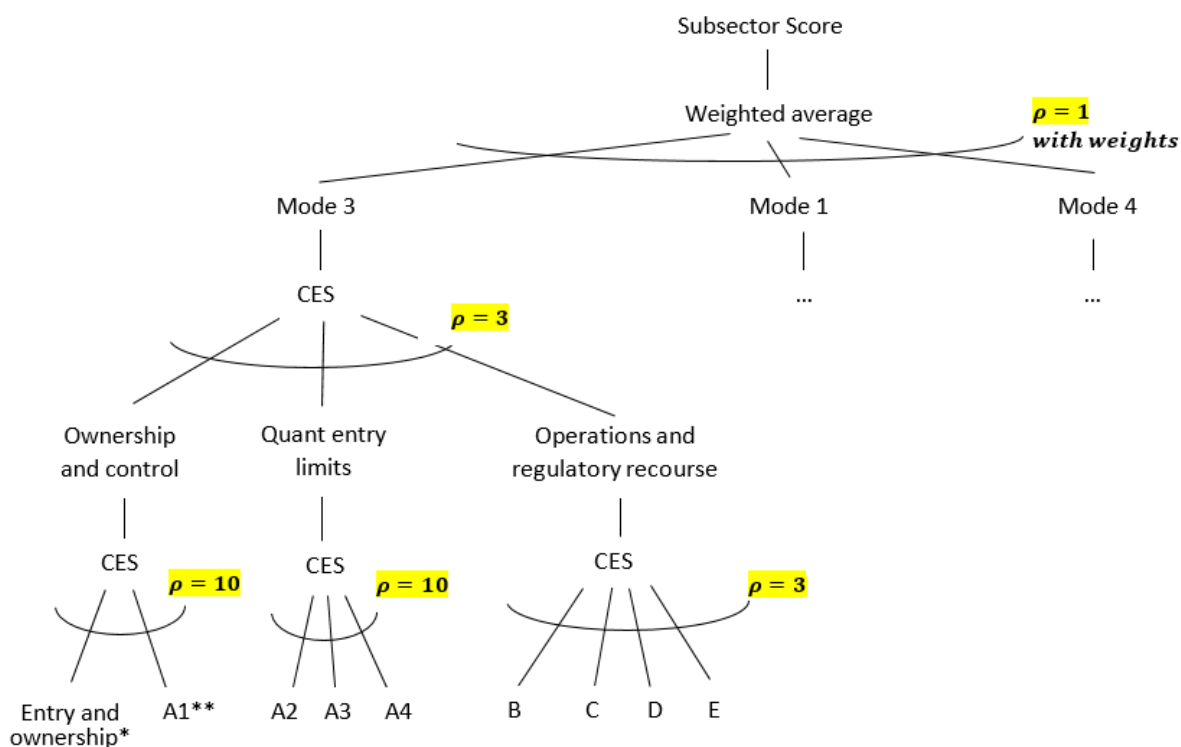
Figure 2: Aggregation of individual measure scores



Before describing these different “nests” of aggregation in more details, three principal advantages of combining scores with a single function as in equation (1) over traditional methods of aggregation are worth emphasising. First, this approach is sufficiently general and can flexibly accommodate instances in which the economic impact of policy measures is nearly additive as well as instances in which the incremental impact of a measure is almost negligible. Both cases can be addressed in one consistent framework by defining two nests over a subset of measures, each with a suitable value of the ρ parameter. Second, the approach is parsimonious and transparent in that the aggregation of a large number of measures is governed by a single parameter, rather than a potentially large set of weights, as would be the case with any kind of arithmetic average. Third, STRI scores obtained from a single functional form are reproducible, i.e. comparable scores can easily be obtained for new economies or sectors when coverage of the STPD is expanded, and policy simulations can be run by obtaining new sector-level or economy-level scores with different values for individual policy measures.

The combination of individual measure scores to subsector-level STRI values follows the conceptual classification of measures as set out in Box 1 above. This is because measures within a given category naturally share a similar relationship vis-à-vis each other, so that they form “nests” that can be aggregated with one suitable chosen ρ parameter. At the point when aggregation commences, we observe scores for a total of 55,603 measures across all economies, subsectors and modes, respectively. Most of these measures pertain to Mode 3 (39,817 across all categories) and category A1 ‘Form of Entry’ (18,685 across all modes).

Figure 3: Structure of multi-layered aggregation of measure scores



Source: authors' representation.

Notes: * Policy measures (including synthetic measures) considered as part of 'entry and ownership' for mode 3 are greenfield entry and mergers and acquisitions entry, respectively, in all sectors, and branch entry for financial subsectors, and partnership and sole proprietorship in professional services subsectors. For mode 4, these relate to the different categories of natural persons allowed to enter the market. ** The letters A to E refer to the principal categories of the measure classification, as set out in Box 1. Thus, "A1**" encompasses additional measures of market entry not already included in 'entry and ownership', namely a joint venture requirement or majority of nationals (or residents) on the board of directors.

We first aggregate all scores pertaining to forms of entry (cf. Box 1). This aggregation is performed with a parameter value of $\rho = 10$ because the remaining measures in category A1, if applied in combination with "entry and ownership" restrictions, do not add much to overall restrictiveness. For example, requiring a majority share of board of directors to be nationals is restrictive in isolation but does not materially change market entry conditions if majority foreign equity ownership is not possible in the first place. This 'conditional' effect on aggregate restrictiveness is exactly what the nested CES approach delivers.

For the remaining entry measures reflecting de jure and de facto 'quantitative entry limits' (i.e. categories A2-A4: quantitative restrictions, licensing relating to market entry, other market entry measures), we also use a parameter value of $\rho=10$ because if more than one measure is applied, the combined use of different types of quantitative restrictions will not add much to the overall restrictiveness of quantitative entry limitations.

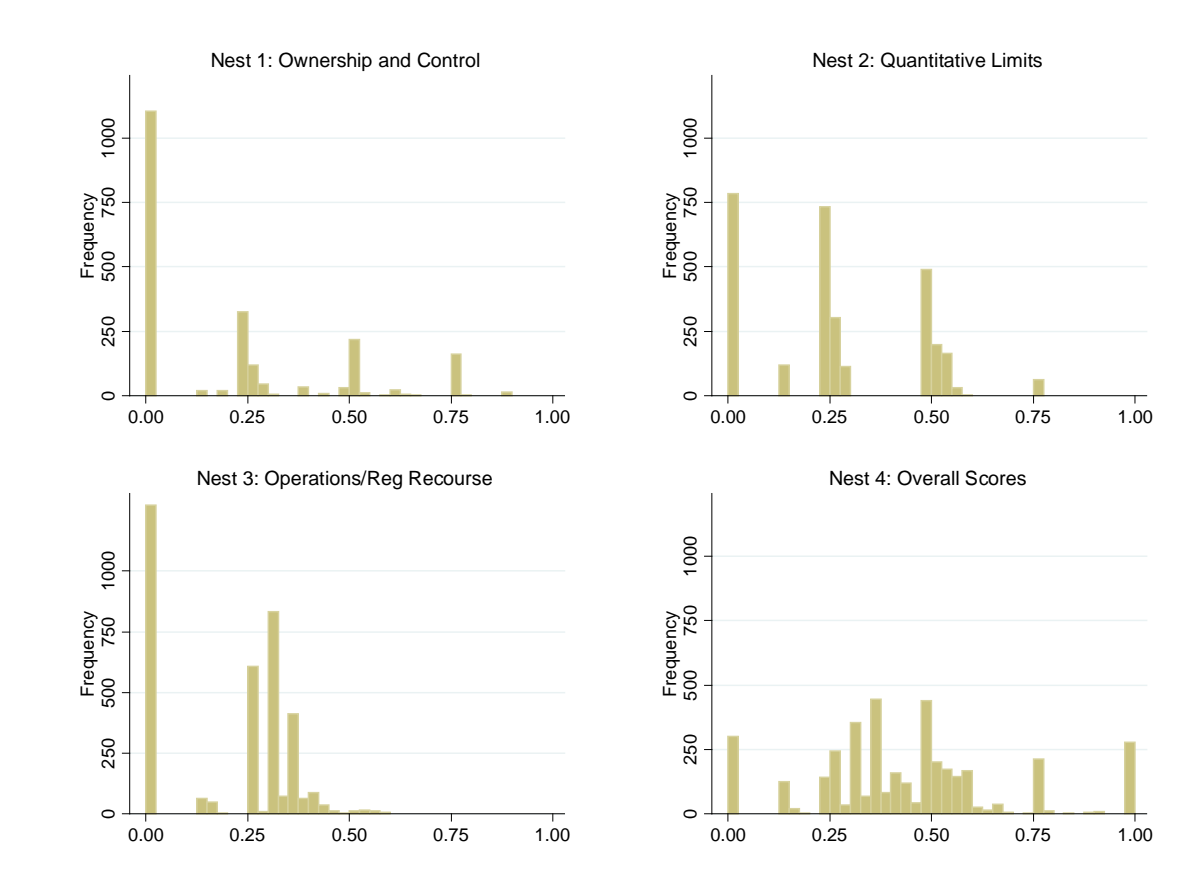
Policy measures from all other categories of Box 1 (B, C, D and E) are combined into a score capturing restrictions affecting "operations and regulatory recourse." In this instance, a low value of the aggregation parameter ($\rho = 3$) is appropriate to reflect the mostly additive nature of these measures. For instance, not having the right to appeal regulatory decisions should arguably always add to the overall restrictiveness of those policy measures, regardless of whether some minimum share of employees is required to be nationals.

All three principal nests (ownership, quantitative limits and operations) are then combined with a value of $\rho = 3$ into an overall score per mode of supply. The rationale for using this parameter value is that at this specific stage, each constituent score should add to restrictiveness but moderately so

(see Figure 2). An additional advantage of this modular structure, which follows our taxonomy, is that the distribution of restrictiveness (across economies and sectors) is easily made transparent at each stage of aggregation—or “CES nest”—showing which kinds of policy measures drive the overall distribution of STRI values (Figure 4).

The overall distribution of the resultant scores is shown in Nest 4 (bottom right of Figure 4). The mass point at a score of 0 depicts the 315 entirely open cases, whereas the mass point at 1 reflects the 371 instances in which individual economy-subsector-mode combinations are closed altogether.²⁶ In between these polar cases, in which an economy-subsector-mode is either entirely open or entirely closed, the distribution of restrictiveness scores is fairly spread out. That said, two important features of the incidence of policy restrictions, and the way the algorithm deals with it, are apparent from Figure 4. First, most measures from the “operations and regulatory recourse” categories carry individual scores of 0.25 or 0.125, and the joint application of several such measures leads to a distribution of restrictiveness scores within the interval of [0.25, 0.50] for those subsectors that are not entirely open (see Nest 3). This is a reasonable result. Second, the overwhelming majority of high scores—those around 0.75—arise from the application of some sort of quantitative limitation, rather than outright ownership limitations (Nests 1 and 2).

Figure 4: Scores by Principal Stage of Aggregation



At this point we have aggregated all individual measure scores to one STRI value per economy, subsector and mode. The nested aggregation described thus far is in principle the same within each mode of supply, even though the nature and number of measures within CES nests (such as ‘ownership and control’) will differ across modes.

²⁶ Across sectors, this total comprises of 108 cases from the four Financial subsectors, 176 cases from the five Professional Services subsectors, and 87 cases from across all other remained sectors, half of which are in fact railway freight services.

The next step is to combine the modal scores to one STRI value per economy and subsector. We do this with a weighted arithmetic average, with a set of weights that differs across subsectors, reflecting the relative importance of the three modes for the provision of a given service (Table 6.2 in Annex 6). Setting the aggregation ρ parameter to unity in equation (1) yields the arithmetic average as a special case of the CES with weights. We are therefore not stepping outside the framework we have consistently employed thus far. However, the aggregation of scores from different modes is different from the aggregation of measure scores because in any sector one mode of supply will invariably be more important than others, so that the symmetric treatment of measure scores is no longer appropriate for this step of the aggregation.

The weights for aggregating scores by mode of supply follow largely the ones employed in the previous World Bank STRI database, although certain modifications have led to a slight re-balancing of modal weights. First, unlike the treatment of Mode 4 in the previous World Bank STRD, in which Mode 4 restrictions were confined to professional services sectors only, we now consider policy measures affecting the movement of persons (e.g. prohibition of, or quotas on, intra-corporate transferees) in *all* subsectors.²⁷ This coverage is consistent with the OECD policy area “Movement of People” that cuts across all sectors and increases the comparability of restrictiveness scores across both projects.

Second, the more comprehensive coverage of policy measures in this update also improves modal coverage directly or indirectly. For instance, Mode 1 is now covered as well in distribution (wholesale/retail), rail and road sectors, respectively (only Mode 3 used to be covered in the previous World Bank STRD). In international air transportation (both passenger and air cargo), the WTO’s “Worldwide Air Liberalisation Index” (WALI) as of 2012 is used to cover Mode 1. The WALI results had to be rescaled to the scaling used in the STRI: $\text{rescaled_WALI} = (50 - \text{WALI}) * 2$. This is an imperfect approximation of policy restrictiveness. WALI does not reflect the MFN policy, but rather is a synthetic measure of openness which relates to all services agreements an economy may have signed, and it pre-dates the policy information collected for 2016.²⁸ However, the importance of cross-border supply for air transport services means that the use of an imperfect approximation results in a less serious distortion than the omission of Mode 1 altogether.

This completes the aggregation of scores from the level of individual measures to the subsector and economy level, respectively. We then aggregate subsector STRIs to obtain sector-level and economy-level STRIs, respectively, using the weights provided in table 6.1 of Annex 6. These are based on the value-added weights of services sectors of individual economies’ total value added for 2013.

Decomposition of changes in STRI scores in 2008-11 vs 2016

In this section we offer a comprehensive decomposition of differences in STRI scores across 2008-11 and 2016, respectively, to transparently identify the reasons for those changes. It is tempting to attribute any observed change in STRI scores between two periods in time to a corresponding change in policy regime, but in fact it could also be due to improvements in the quantification method (i.e. introduction of the algorithm and use of the CES aggregation method), or changes in the sectoral scope of the STRI. Hence, for the 55 economies covered in both periods, we map the scores from the earlier (2008-11) World Bank database against the new scores in the STPD as of 2016 and disentangle the three components that each play a role—to a varying degree—in driving the overall observed change in scores: (i) changes in the quantification methodology, (ii) actual changes in policy regime, and (iii) changes in sectoral scope.

²⁷ Cross-sectoral differences in the relevance of Mode 4 measures are accounted for at the level of individual measure scores. For instance, a quantitative limit on intra-corporate transferees attracts a restrictiveness score of 0.125 in professional and transport subsectors and a score of 0.25 in all other sectors where the use of ICTs is more widespread.

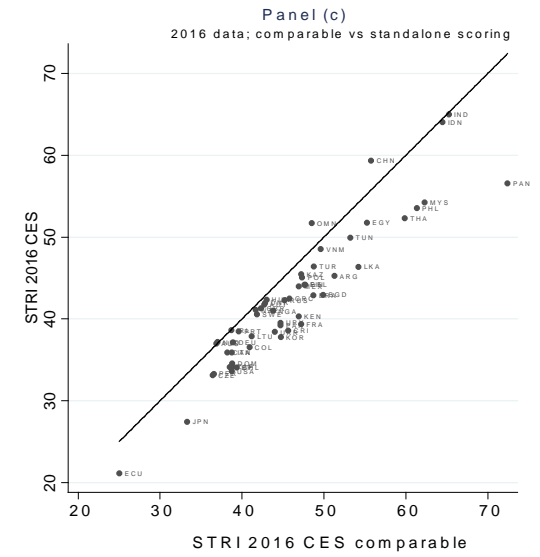
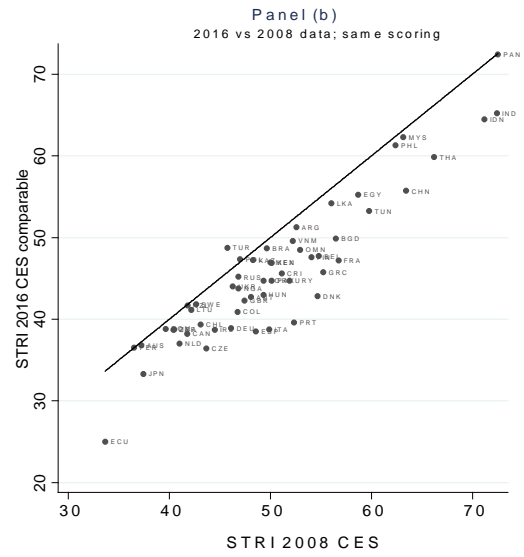
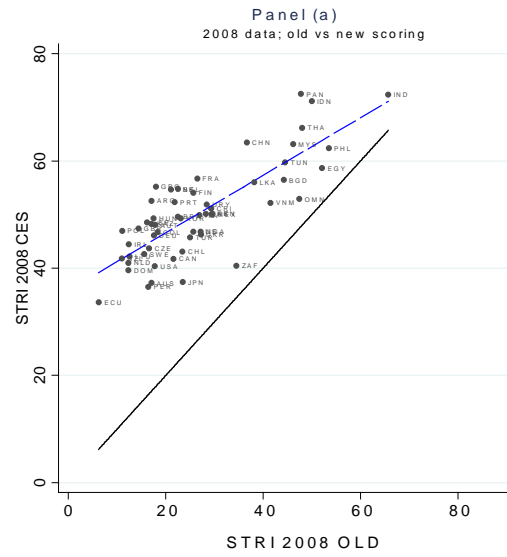
²⁸ WALI is a synthetic measure of the openness of the air transport policy of a given economy. It is calculated as an average of the air liberalization indices of all the Air Services Agreements concluded by that economy, weighted by the respective traffic they cover. WALIs are computed for all four ALI weighting systems. Further assumptions are required to utilize the BASA-based WALI for gauging restrictiveness in air cargo transportation. We assume that (1) roughly 50% of air cargo travels in the belly hold of passenger aircraft, and (2) mode 1 trade using dedicated cargo carriers is essentially open. Combining both, we use a weighted average of $(0.5 * \text{rescaled_WALI} + 0.5 * 0)$ for mode 1 air cargo transport. It is also important to note that the same index was used for 2008-11.

- i. For this first level of analysis we use the 2008-11 raw policy data and aggregate these scores alternatively with the original methodology previously used by the World Bank and the improved 2016 methodology (i.e. introduction of the algorithm and use of the CES aggregation method), respectively. We do this at the most disaggregated (subsector-mode) level, see Figure 5, Panel (a). The STRI scores aggregated with the improved methodology are shown on the vertical axis and are set against the original 2008-11 STRI values shown on the horizontal axis. The comparison reveals three key points:
 - Most importantly, both aggregation methodologies lead to qualitatively similar results for individual economies, in the sense that the order in terms of overall restrictiveness is similar under both methods;
 - At the same time, the improved methodology tends to lead to higher scores as evidenced by the fact that all economies lie above the 45-degree line (points along which indicate equal scores obtained from either methodology); and
 - the difference in scores is more pronounced at the lower end of policy restrictiveness. The reason is that the new CES aggregation method takes into account all non-zero policy measures, whereas the score under the original method had a tendency to reflect the score of the single most restrictive measure. That is, under the improved 2016 method of aggregation, incremental non-zero measures lead to higher overall restrictiveness, albeit at a decreasing rate.
- ii. In a second step, we compare the 2008-11 scores to the 2016 scores when both are obtained by using the same new aggregation method so that they are comparable in terms of sectoral coverage and methodology. This comparison therefore isolates the effect of the pure policy change. As is evident from Figure 5, Panel (b), nearly all economies lie below the 45-degree line, which reflects the secular and broad-based pattern of liberalisation in services trade policies over that period.
- iii. Lastly, we compare the 2016 scores comparable in terms of sectoral coverage with 2008-11 (used in the previous step) to the 2016 scores including the additional subsectors available from the new STPD. Both these scores are aggregated using the same (new) methodology, so that differences cannot be due to methodological changes; however, these scores differ in the coverage of subsectors as well as in broader modal coverage for a number of subsectors (e.g. mode 4 is included in all subsectors, whereas previously it was covered only for professional services).²⁹ The finding that the overwhelming majority of economy scores lie below the 45 degree line indicates that the narrower sectoral scope of the 2016 comparable scores (horizontal axis) is generally higher, i.e. more restrictive, than the complete 2016 scores (vertical axis), Figure 5, Panel (c). This difference is mainly a consequence of the inclusion of the wholesale distribution subsector in the 2016 STPD, which effectively doubles the sector weight for distribution in the aggregate score from 20% to 40%. Since service trade policies in the distribution sector are generally more open than in other sectors, the regular 2016 scores encompassing all subsectors (including wholesale distribution) are typically lower.

We conclude that for the economies covered in both the original World Bank exercise and the 2016 version—holding constant the quantification methodology and sectoral coverage—there is a trend towards more open trade policies in services sectors.

²⁹ There has been a change in the way in which policies in the maritime shipping sector are assessed.

Figure 5: Decomposition of STRI score changes



Other considerations

We recognize that the approach to quantifying policy restrictiveness as described above is not perfect. However, given data constraints and the wide range of sectors covered, there is no obviously superior method of comparable quantification. The imperfection is somewhat mitigated by the extensive consultations that have been conducted with the private sector representatives, regulators and experts in making the assignments of scores to individual and synthetic measures and defining modal and sectoral weights. We believe that the adopted approach to quantifying policy information yields broadly plausible restrictiveness scores.

The reasons for using a simple method are the following: first, methods that assign fixed weights to all types of restrictions (entry, operational, regulatory) and that treat the restrictions as additive are flawed in certain respects. For instance, a foreign equity limit of 49 percent already precludes foreign corporate control and so adding to it a further (frequently encountered) requirement that the majority of board of directors be nationals would amount to double counting. Second, more sophisticated methods have to rely on detailed sets of data that are difficult and costly to collect for many economies, particularly those that are less developed. Third, a parsimonious and straightforward method is likely to be readily understood by a wide range of diverse users. Finally, because of the conceptual separation of scoring and aggregating, the STRI obtained with our methodology do **not** depend on the total number of potentially applicable measures. As a result, it is easily possible to substitute, add or remove measures in the building of the index.

In any case, quantification is merely the tip of the iceberg, and best seen as a first step to create a broader picture of policy patterns and identify certain important issues. The main value of the database is the detailed information at the measure level which enables a more granular analysis of policy issues. In other words, the scores are a first step rather than the end result. The main goal of the database is to give to users the information and tools necessary for services trade policy analysis.

4 DATA PRESENTATION IN I-TIP SERVICES

While a summary measure of restrictiveness is convenient and indeed indispensable for quantitative analysis, we believe that the real strength of this project is the richly textured policy information that has been collected. In addition, different users are likely to have different needs as to the data content, level of detail, and type of presentation. For these reasons, the Database enables users to view the information directly on the results screen of the application, as well as to download data for trade policy analysis and research. The Database will also offer the option of directly linking the applied policy information, to information relating to binding legal commitments made by economies in the context of the GATS or free trade agreements (bilateral or regional).

The joint WTO-World Bank Services Trade Policy Database is disseminated through the I-TIP services portal. I-TIP services consists of a set of linked databases providing information on WTO Members' commitments and MFN exemptions under the General Agreement on Trade in Services (GATS) as well as preferential market access commitments for least developed countries granted by Members under the LDC Services Waiver, services commitments in regional trade agreements (RTAs), applied measures affecting access to and operations in economies' services markets, and relevant services statistics (see figure 5). In its four modules (GATS, RTA commitments, Services Trade Policy Database, and Statistics), the I-TIP interface permits searches by jurisdiction, sector, agreement, or source of information. Search results are presented in summary form, as well as in more detail. Search results can be filtered across a number of additional criteria. Users can easily switch from one module to another by selecting a different module from the menu bar, for example from looking at a particular economy's commitments in a given sector, to relevant commitments in RTAs, and then to applied regulatory information and related services statistics. We will now concentrate in the rest of this section on the description of the Services Trade Policy Database module.

Figure 5: Entry page of I-TIP Services

WORLD TRADE ORGANIZATION **THE WORLD BANK** **I-TIP SERVICES**

Welcome to I-TIP SERVICES

I-TIP Services is a joint initiative of the World Trade Organization and the World Bank. It is a set of linked databases that provides information on Members' commitments under the WTO's General Agreement on Trade in Services (GATS), services commitments in regional trade agreements (RTA), applied measures in services, and services statistics.

GATS	Regional Trade Agreements	Services Trade Policy Database	Statistics
<p>This module contains information on Member's market access commitments and exemptions to the Most favoured Nation (MFN) obligation. It also includes the preferential market access commitments for least-developed countries granted by WTO Members under the LDC Services Waiver (see list of notifying Members). The latter feature of I-TIP was developed in cooperation with the International Trade Centre (ITC).</p>	<p>The RTA module allows to access and search for information on Members' commitments in regional trade agreements notified under Article V of the GATS. Currently, the database covers a good proportion of services RTAs (see list attached).</p>	<p>The Applied Services Trade Policy module provides information jointly compiled by the World Bank and the WTO on services regulatory frameworks. Currently, the database covers 23 service sectors in 68 Members. The information for 25 of those Members was collected in 2016-2017 through a survey conducted by the World Bank and the WTO. The information for the remaining 43 Members was mainly sourced from the OECD STRI regulatory database (2016 version), thanks to the co-operation of the OECD, which is gratefully acknowledged. Links to other useful sources of information on applied services policies are also provided (e.g. WTO monitoring reports, WTO trade policy reviews).</p>	<p>The Services Statistics module accompanies the GATS, RTA and Applied regimes modules by providing relevant trade in services and related statistics.</p>

Services Trade Policy Database

The main purpose of this new database is to provide a comprehensive repository of measures affecting services trade, i.e, measures restricting the ability of foreign service providers to supply services in a certain jurisdiction through different modes of supply. In using the database, it is necessary first to make selections based on jurisdictions, sectors (and subsectors), modes of supply, and measure categories for which information is sought (see figure 6). The new classification described above and used in this database, is developed on the assumption that, to analyse trade policies, measures need to be organized in a comprehensible manner and be comparable among different types. Consequently, the universe of measures in the database can be selected and are presented according to the five main categories described in section 2, namely: conditions on market entry (restrictions on market entry i.e. quotas, foreign equity limitations); conditions on operations (what happens once you are in the market); measures affecting competition (barriers to competition); administrative procedures and regulatory transparency; and a residual category which is miscellaneous. Each category is further broken down into the sub-categories which were described in section 2 (see figure 7). A selection can be made starting from any of the four drop-down menus. The menus are linked in that only measures that are relevant for a sector- or mode- can be selected. For instance, if the mode of supply is selected first, say cross-border, only measures applicable to mode 1 will be active in the measure categories menu.

Figure 6: Presentation of selection menus

The screenshot shows the top navigation bar with links for Home, GATS, RTA Commitments, Services Trade Policy Database, and Statistics, along with a User Guide link. Below this is the title "World Bank - WTO Applied Services Trade Policy Database". The main content area contains four selection menus: "Members" (dropdown menu with "All Members" selected), "Sectors" (dropdown menu with "All Sectors" selected), "Mode of supply" (dropdown menu with "All modes" selected), and "Measure Categories" (dropdown menu with "All Measure Categories" selected). Below these menus are buttons for "Clear", "Download World Bank STRI quantification", "View results", and "Download". At the bottom, there is a link for "Other WTO sources and other databases on applied services policies".

Figure 7: Selection of measures

The screenshot shows the "Measure Categories" selection menu. It features a dropdown arrow at the top. Below the dropdown is a tree structure of measures. The root node is "All Items". Under "All Items", there are three main categories: "A. Conditions on market entry", "A.2 Quantitative measures (for firms and natural persons)", and "A.3 Conditions on licensing/investment screening/qualifications relating to market entry (for...". Under "A.3", there are several sub-items: "Notification of investment required", "Registration required", "Screening of investment", "License or authorization required (incl. concessions)", "Minimum capital requirement", "Nationality or citizenship required for license to practice", "Prior or permanent residency required for license to practice", "Domicile required for licence to practice", "Consolidated supervision by their home regulator", "Period of time since an applicant's incorporation in its home country before obtaining a l", "Licence: other requirements", and "Automatic recognition of foreign license granted".

The drop-down list for selecting the economies permits the selection of one or many jurisdictions by checking the box next to their names, or alternatively by selecting the economies belonging to specific geographical or economic groupings. To facilitate the selection, the name can also be typed in the corresponding space. Sector search can be performed by selecting one or many of the 23 sub-sectors covered in the Database. Within each sector or subsector, the database covers the most

relevant modes of supplying the respective service: commercial presence and presence of natural persons (modes 3 and 4 in WTO parlance) in every subsector and cross-border supply (mode 1) for financial, distribution, transportation (except air transport and maritime auxiliary services such as cargo-handling and storage and warehousing) and professional services (except legal advice and representation services on host country law).

The results of the selection defined by the user can be viewed on the screen ("View results"), or downloaded directly in Excel, pdf or csv format (« Download »). An option to download the entire dataset is also proposed in the « Download » menu. These are shown on the right-hand side of the selection page as shown in Figure 6. Finally, a link to the STRI results (« Results of the World Bank STRI quantification ») is provided on the selection page.

Presentation of results of selection on the screen

The search results are initially presented in an abbreviated and succinct manner to provide the user with a general presentation of the selection made (Figure 8). Answers are limited to "yes", "no", "N/A", or a number. "Yes" and "no" responses are straightforward, indicating the existence or non-existence of the restriction, while responses with numbers usually indicate a percentage (foreign equity ownership). The interface gives the possibility of accessing more details (comments, legal basis, information on source) for each individual measure by hovering over the answer or by clicking on the hyperlinks (Figure 9).

Figure 8: Overview results of a selection

The screenshot shows the World Bank - WTO Applied Services Trade Policy Database interface. At the top, there are logos for the World Trade Organization, The World Bank, and FTI SERVICES. Below the logos, there are navigation tabs: Home, GATS, RTA Commitments, Services Trade Policy Database, and Statistics. A "User Guide" link is also present. The main content area displays search criteria: Members: Bangladesh; Hong Kong, China; Sectors: Mobile telecommunication services; Mode of supply: Mode 3. There are links for "Back to selection screen" and "Download World Bank STRI quantification". A "Show filters" section is visible, along with a "Clear filters" button. The main table displays search results for Bangladesh and Hong Kong, China, under the heading "16.B Mobile telecommunication services" and "Mode 3". The table lists various measures under "A. Conditions on market entry" and "A.1 Forms of entry (including foreign equity limits)".

Measure	Bangladesh	Hong Kong, China
16.B Mobile telecommunication services (Showing 50 of 121 items. Group continues on the next page.)		
Mode 3 (Showing 50 of 121 items. Group continues on the next page.)		
A. Conditions on market entry		
A.1 Forms of entry (including foreign equity limits)		
Foreign establishment prohibited	No	No
Restrictions to establish or operate representative offices	No	No
Branches of foreign establishment locally allowed	Yes	Yes
Foreign establishment of (or investment in) locally incorporated company allowed	Yes	Yes
Greenfield: Max. foreign ownership allowed (%)	100	100
Joint venture requirement for foreign entity	No	No
Restrictions on cross-border mergers and acquisitions	Yes	No
Domestic entity acquisition allowed	Yes	Yes
Domestic entity acquisition: Max. aggregate foreign ownership allowed (%)	100	100
Domestic entity acquisition: controlling stake allowed (i.e. if minority ownership)	Yes	Yes
Limits on the % of capital that can be acquired by foreign investors in publicly-controlled firms	Yes	No

Figure 9: Detailed view of search results.

BANGLADESH	
FOREIGN BRANCHES ARE ALLOWED	
Mode:	3
Measure and response:	Branches of foreign establishment locally allowed : Yes
Comments:	Foreign branches are allowed There is no restriction in operating as a branch office.
Date collected:	2016
Collected by:	WTO/WB (based on survey)
HONG KONG, CHINA	
FOREIGN BRANCHES ARE ALLOWED	
Mode:	3
Measure and response:	Branches of foreign establishment locally allowed : Yes
Comments:	Foreign branches are allowed A foreign company may register a branch in Hong Kong under the Companies Ordinance (Cap. 622). See see Part 16 of the Companies Ordinance.
Relevant source:	Companies Ordinance (Cap. 622) legislation.gov.hk/bllis_pdf.nsf/CurEngOrd/707C1C4DC6BDF92848257A5500549A21/\$FILE/CAP_622_e_b5.pdf
Date collected:	2016
Collected by:	WTO/WB (based on survey)

All results, like the overview results or the detailed view, can also be exported to Excel, PDF or csv format by clicking on the relevant icon on the top right-hand side of the window. The results of the STRI quantification can also be downloaded from the results page (figure 8).

Description of Excel and csv downloads of regulatory data

As indicated above, results can be downloaded in Excel or csv, making the information more easily accessible for further analysis or processing. Columns are organized as follows: Economy, Subsector code, Subsector name, Mode of supply, Category of measures, Subcategory, Measure, Response, Comments, Relevant legal basis, Year of data collection and which agency collected and compiled the information- Collected By (Figure 10).

Figure 10: Example of Excel and csv downloads

Economy	SectorCode	SectorName	Mode	Category	Subcategory	Measure	Response	Comments	Relevant Date	Collec	Collected By
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.1 - Forms of entry (i) Foreign esta	No	Market entry is allow	Clause 3	2016	WTO/WB (based on survey)		
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.1 - Forms of entry (i) Restrictions	No	Absence of restrictions to estab	2016	WTO/WB (based on survey)			
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.1 - Forms of entry (i) Branches of Yes	Foreign branches are allowed ,	2016	WTO/WB (based on survey)				
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.1 - Forms of entry (i) Foreign esta	Yes	Foreign establishment of new li	2016	WTO/WB (based on survey)			
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.1 - Forms of entry (i) Greenfield: N	100	Maximum foreign ownership in n	2016	WTO/WB (based on survey)			
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.1 - Forms of entry (i) Joint venture	No	Establishment as joint-venture i	2016	WTO/WB (based on survey)			
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.1 - Forms of entry (i) Restrictions	Yes	Restrictions on cross- Banglade	2016	WTO/WB (based on survey)			
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.1 - Forms of entry (i) Domestic en	Yes	Foreign acquisition of a domest	2016	WTO/WB (based on survey)			
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.1 - Forms of entry (i) Domestic en	100	Maximum aggregate foreign ow	2016	WTO/WB (based on survey)			
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.1 - Forms of entry (i) Domestic en	Yes	Foreign acquisition of Section 12	2016	WTO/WB (based on survey)			
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.1 - Forms of entry (i) Limits on the	Yes	There are limits to the	2016	WTO/WB (based on survey)			
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.1 - Forms of entry (i) Restrictions	No	Absence of restrictions on the ty	2016	WTO/WB (based on survey)			
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.1 - Forms of entry (i) Maximum fo	100	Maximum foreign ownership in k	2016	WTO/WB (based on survey)			
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.1 - Forms of entry (i) Other restric	No	No other restrictions on the legal	2016	WTO/WB (based on survey)			
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.2 - Quantitative mea	Demonstrati	No requirement to demonstrate ,	2016	WTO/WB (based on survey)			
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.2 - Quantitative mea	Limits on the	Number of firms or suppliers not	2016	WTO/WB (based on survey)			
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.2 - Quantitative mea	Limit on nurr	Yes	Limit on the total nurr	Guideline	2016	WTO/WB (based on survey)	
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.2 - Quantitative mea	Local data s	No	Local data storage is not a prec	2016	WTO/WB (based on survey)		
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.3 - Conditions on lic	Notification	No	Notification of investment is not	2016	WTO/WB (based on survey)		
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.3 - Conditions on lic	Registration	Yes	Registration required Section 32	2016	WTO/WB (based on survey)		
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.3 - Conditions on lic	Screening of No	No screening of foreign investme	2016	WTO/WB (based on survey)			
Bangladesh	16 B	Mobile telecommunication services	3	A - Conditions on mar/A.3 - Conditions on lic	Screening of No	Screening foreign investors are	2016	WTO/WB (based on survey)			

Description of the Results of World Bank STRI quantification file

As indicated above, the full results of the World Bank STRI quantification can be downloaded in an Excel file. The Excel file provides five different sheets: "Mode 1 STRI", "Mode 3 STRI" and "Mode 4 STRI" show the STRI for each of the respective modes of supply separately, "All modes STRI" contains the aggregate STRI combining the three modes of supply in one index and lastly, "All STRIs"

includes all available STRIs. Each sheet has the same structure: The first column "Economy" shows ISO-ALPHA 3 codes, followed by the name of the economy in "Economyname". "Sectorcode" contains the sector codes from the Services Sectoral Classification List (MTN.GATS/W/120) with extended detail, and "Subsector" the respective sector name. An alternative classification was used for maritime auxiliary services, telecommunication services and commercial banking to better illustrate the functioning of businesses.

Figure 11: Extract of World Bank STRI quantification file

A	B	C	D	E	F
Economy	Economyname	Sectorcode	Subsector	Mode	Score
ARG	Argentina	11.C.b.(b)	Air freight international	4	0.0
ARG	Argentina	11.C.b.(b)	Air freight international	All modes	34.4
ARG	Argentina	11.E.b	Rail: Freight transportation	1	100.0
ARG	Argentina	11.E.b	Rail: Freight transportation	3	77.7
ARG	Argentina	11.E.b	Rail: Freight transportation	4	0.0
ARG	Argentina	11.E.b	Rail: Freight transportation	All modes	74.4
ARG	Argentina	11.F.b	Road: Freight transportation	3	39.7
ARG	Argentina	11.F.b	Road: Freight transportation	4	0.0
ARG	Argentina	11.F.b	Road: Freight transportation	All modes	29.8
ARG	Argentina	13.B.1	Maritime cargo-handling, storage, warehousing and contain	3	42.7
ARG	Argentina	13.B.1	Maritime cargo-handling, storage, warehousing and contain	4	0.0
ARG	Argentina	13.B.1	Maritime cargo-handling, storage, warehousing and contain	All modes	38.5
ARG	Argentina	13.B.2	Maritime intermediation auxiliary services	1	100.0
ARG	Argentina	13.B.2	Maritime intermediation auxiliary services	3	39.7
ARG	Argentina	13.B.2	Maritime intermediation auxiliary services	4	0.0
ARG	Argentina	13.B.2	Maritime intermediation auxiliary services	All modes	47.8
ARG	Argentina	16.A	Fixed-line telecommunication services	3	40.5

5 CONCLUDING REMARKS

This paper presents the progress made in recent years by the World Bank and the WTO Secretariat in jointly developing a new database on applied services trade policy. It is one element in a broader project to have a one-stop-portal – I-TIP services – for information on services trade policies, for policy makers, researchers and other stakeholders.

The information on applied services trade policies is presented for 23 services subsectors, by mode of supply and is available for 68 economies. Data for 25 economies were collected via a detailed questionnaire developed by both organisations, and is complemented using information gathered by the OECD. Data are presented using a new, detailed and innovative classification of services trade policies. It is entirely compatible at the measure level with the list of measures used in the context of other efforts, such as the previous 2008-11 World Bank exercise, or the more recent OECD services trade restrictiveness index.

The policy information is used to compute services trade restrictions indices (STRIs), based on the methodology developed by the World Bank in the early 2010s, but with a number of improvements. The ambition is to construct aggregate restrictiveness indices in a consistent and reproducible manner, which are nonetheless easy to understand and amenable to modification and/or simulation. The fact that we have collected very detailed information covering issues beyond market access or discriminatory measures enables us potentially to assess other policy areas relating to domestic regulation, transparency or competition issues. This will enhance the comparability of information, help to identify context-specific best regulatory practices, and ease regulatory cooperation among jurisdictions.

Additional policy data will be made available in due course. In particular, the World Bank and the WTO Secretariat are exploring ways to expand the number of economies covered, including through the participation of other agencies in this joint effort. At the time of writing, new data collection exercises have begun with the participation of the Central European Free Trade Area (CEFTA) and the African Union Secretariats to collect information on economies in the two regions. We are also

improving the coverage of sectors, to enhance comparability with the OECD dataset, and to focus on areas of interest to developing economies (e.g. architectural and engineering services, construction, computer services, health services, tourism). Efforts are also under way to benefit from synergies with some specialised agencies that may be interested in conducting similar exercises. For example, we have been collaborating with the International Telecommunications Union (ITU) to widen the scope of the ITU annual telecommunications regulatory survey to incorporate relevant trade policy questions. Such a collaborative approach would enable us to collect additional information of interest for this project, without unduly burdening the respondents of regulatory agencies in economies.

Also, the World Bank and WTO Secretariat are engaged in the development of a new dataset on services PTAs that will, for the first time, cover in a comprehensive manner the most important aspects of these agreements, from the design of the regulatory framework through to the specific commitments on liberalization. We aim at quantifying commitments in the PTAs covered in the new dataset, which would allow us to compare the restrictiveness of services policies arising from different PTAs, and to compare them with the restrictiveness of applied services policies, for the economies covered by the World Bank -WTO Services Trade Policy Database.

Finally, the World Bank, the WTO Secretariat and the OECD are continuing to collaborate on the production and dissemination of services trade policy information as a global public good. We are committed to ensure the gradual convergence of the respective projects. The three agencies are also working to increase the number of economies and sectors covered, and the inclusion of new policy measures.

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ANNEX 1 CLASSIFICATION OF MEASURES

Measure	M1	M3	M4	Sector scope
A. Conditions on market entry				
1. Legal forms of entry (including foreign equity limits)				
Cross-border supply and franchising				
Cross-border supply prohibited	x			COM
Partial sectoral coverage of cross-border supply	x			COM
Consumers must use the services of a resident intermediary	x			COM
Commercial presence requirement as a condition for cross-border supply of the service	x			COM
Exception to commercial presence requirement for domestically unavailable services	x			COM
Limits on e-commerce/other forms of non-store retailing/wholesaling without commercial presence	x			SS
Restrictions on franchising	x	x		COM
Commercial Presence				
Foreign establishment prohibited		x		COM
Restrictions to establish or operate representative offices		x		COM
Branches of foreign establishment locally allowed		x		COM
Foreign establishment of locally incorporated company allowed		x		COM
Greenfield: Max. foreign ownership allowed (%)		x		COM
Joint venture requirement for foreign entity		x		COM
Joint venture: Max. aggregate foreign ownership allowed (%)		x		COM
Restrictions on cross-border mergers and acquisitions		x		COM
Domestic entity acquisition allowed		x		COM
Domestic entity acquisition: Max. aggregate foreign ownership allowed (%)		x		COM
Domestic entity acquisition: controlling stake allowed (i.e. if minority ownership)		x		COM
Limits on the % of capital that can be acquired by foreign investors in state-controlled firms		x		COM
Board of directors requirements		x		COM
Board of directors: at least one must be national		x		COM
Board of directors: % nationality requirement		x		COM
Board of directors: at least one must be resident		x		COM
Board of directors: % residence requirement		x		COM
Board of directors: at least one must be a locally-licensed professional		x		SS
Board of directors: majority must be locally-licensed professionals		x		SS
Sole foreign proprietorship allowed		x		COM
Partnership with foreigner allowed		x		COM
Other restrictions on legal form of entry		x		COM

Measure	M1	M3	M4	Sector scope
Restrictions on the type of shares or bonds held by foreign investors		x		COM
Maximum foreign ownership in local investment companies (%)		x		COM
Commercial Presence in Professional Services				
Equity restrictions apply to non-locally licensed professionals/firms		x	x	SS
Majority of shareholders must be locally licensed		x		SS
Commercial association prohibited between fully integrated practitioners and other professionals		x		SS
Commercial association prohibited between not fully integrated practitioners and fully integrated professionals		x		SS
Presence of Natural Persons				
Service-Supplying Employee (CSS) of a Firm Based Abroad - Allowed			x	COM
CSS - Residency required			x	COM
Independent Professional as Contractual Service Provider (IP) - Allowed			x	COM
IP - Residency required			x	COM
Intra-Corporate Transferee (ICT) - Allowed			x	COM
ICT - Residency required			x	COM
Foreign employee of a local firm - Allowed			x	COM
Foreign employee - Residency required			x	COM
Foreign drivers permitted to transport cargo/passengers in a host country			x	SS
2. Quantitative measures (for firms and natural persons)				
Demonstration of unavailability of service required	x	x	x	COM
Quantitative limits on the total number of suppliers/licences		x	x	COM
Service provision is reserved for statutory monopoly or granted on an exclusive basis		x		COM
ENT on number of suppliers (including if implemented through licensing process)		x	x	COM
Local data storage precondition to supply services	x	x	x	HZ
Quota – Foreign workers			x	COM
Quota – Contractual service supplier			x	COM
Quota – Independent Professionals			x	COM
Quota – Intra-Corporate Transferees			x	COM
LMT/ENT – Foreign workers			x	COM
LMT/ENT - Contractual service supplier			x	COM
LMT/ENT - Independent professionals			x	COM
LMT/ENT - Intra-Corporate Transferees			x	COM
Limit on number of foreigners employed per company			x	COM
Limit on share of foreigners employed in the domestic economy			x	HZ

Measure	M1	M3	M4	Sector scope
3. Conditions on licensing/investment screening/qualifications relating to market entry (firms /natural persons)				
Registration				
Registration required	x	x	x	COM
Screening of Investment				
Screening of investment		x		HZ
Screening of investment: Subject to notification only		x		HZ
Screening of investment: Subject to evidence of economic benefits		x		HZ
Screening: approval unless contrary to national interest		x		HZ
Licensing				
Licence or authorization required (incl. concessions)	x	x	x	COM
Licence for e-commerce required		x	x	SS
Each ATM considered as a separate branch in the licensing and authorization process		x		SS
Limited or temporary licensing system available		x	x	COM
Licensing requirements		x	x	COM
Minimum capital requirement		x		COM
Nationality or citizenship required for license to practice			x	SS
Prior or permanent residency required for license to practice			x	SS
Domicile required for licence to practice			x	SS
Domicile required for license to practice as a fully integrated lawyer			x	SS
Period of time since an applicant's incorporation in its home country before obtaining a licence		x		SS
Other licensing requirements		x		COM
Criteria to obtain a licence are different for foreign companies		x	x	COM
Automatic recognition of foreign license granted		x	x	COM
Licensing fee		x	x	COM
License automatic if publicly available criteria fulfilled		x	x	COM
Restrictions related to the duration and renewal of licences		x	x	COM
Education/training/work experience		x	x	COM
Mandatory additional domestic education			x	SS
Training or work experience – Number of years			x	SS
Recognition of education and training/work experience			x	SS
Laws or regulations establish a process for recognising higher education degrees earned abroad			x	SS
Passing a professional exam in the host country required			x	SS
Other conditions on licensing/investment screening/qualifications				
Other conditions on licensing/investment screening/qualifications relating to market entry	x	x	x	COM
Licence technology neutral		x		SS
Access rights for rail transport	x			SS

Measure	M1	M3	M4	Sector scope
Access rights for international rail transport	x			SS
Access rights for international combined transport	x			SS
Transit rights for international rail transport	x			SS
Other access rights for rail transport	x			SS
4. Other Conditions on market entry				
Acquisition and/or rental of land and real estate by foreigners restricted		x		HZ
Limits on direct selling	x	x	x	SS
Conditions to own and register vessels under the national flag	x			SS

Measure	M1	M3	M4	Sector scope
B. Conditions on operations				
1. Conditions on supply of service				
Limits on scope of service (numerical and non-numerical)	x	x	x	COM
Regulations limit the range of products a retailer may carry		x		SS
Restrictions on the type of vessels	x			SS
Restrictions on the type of cargo transported (other than cargo reservations)	x			SS
Restrictions on the quantity of cargo transported (other than cargo reservations)	x			SS
Limits on cabotage: Exclusion foreign-flagged ships (or other criteria, such as foreign-built ships)	x			SS
Licences for department stores or large-store formats are subject to quotas or economic needs tests		x		SS
Some banking services reserved for domestic suppliers	x	x	x	SS
Some insurance activities are reserved for domestic suppliers	x	x	x	SS
Restrictions on internet banking		x		SS
Repositioning of equipment restricted	x			SS
Feederling restricted	x			SS
Bilateral/plurilateral cargo sharing agreements	x			SS
Limits on expansion of operations		x		COM
Restrictions on the number of outlets		x		SS
Number of branches restricted		x		SS
Number of ATMs restricted		x		SS
Only domestic banks can establish their own ATM networks		x		SS
Quota for private cargo: Bulk	x			SS
Quota for private cargo: Liner	x			SS
Approval by regulatory authority required for new products or services	x	x	x	COM
Approval by the regulatory authority required for new products or services: compulsory insurance	x	x	x	SS
Use of foreign firm names prohibited		x		COM
Use of foreign firm names is allowed if alongside that of the local partner		x		SS
Conditions on prices/fees/rates	x	x	x	COM
Approval by the regulatory authority required for new rates and fees	x	x	x	COM
Recommended minimum and/or maximum prices	x	x	x	COM
Mandatory minimum and/or maximum prices	x	x	x	COM
Retail roaming rates are regulated		x		SS
Interconnection prices and conditions are regulated		x		SS
Local loop unbundling prices regulated		x		SS
Wholesale access prices regulated		x		SS
Wholesale roaming rates are regulated		x		SS
Mobile termination rates are regulated	x	x	x	SS
Vertical agreements: Resale price maintenance is subject to regulation		x		SS

Measure	M1	M3	M4	Sector scope
Interest rate restricted	x	x		SS
Regulated contractual interest rates	x	x		SS
Regulated banking fees	x	x		SS
Early repayment conditions and fees subject to regulation	x	x		SS
Restrictions on the currency deposited	x	x		SS
Size of the loan restricted	x	x		SS
Insurance premiums, fees or margins regulated	x	x		SS
Value of insurance policy restricted	x	x		SS
Term of insurance policy restricted	x	x		SS
Restrictions on writing insurance contracts in foreign currency	x	x		SS
Rail rates are regulated		x		SS
Confidential contracts allowed		x		SS
Access fees are regulated		x		SS
Interswitching rates are regulated		x		SS
Rates for terminal running rights regulated		x		SS
Retail prices of road freight services are regulated	x	x	x	SS
Government pricing guidelines for road freight companies	x	x	x	SS
Freight carriers required to file tariffs	x	x	x	SS
Advertising either prohibited or subject to restrictions	x	x	x	COM
Duration of stay initially allowed – Foreign workers			x	COM
Duration of stay initially allowed - CSS			x	COM
Duration of stay initially allowed - IP			x	COM
Duration of stay initially allowed - ICT			x	COM
Limitation on a number of days a foreign driver may stay in a host country			x	SS
Minimum wage/salary requirement – Foreign workers			x	COM
Minimum wage/salary requirement – CSS			x	COM
Minimum wage/salary requirement – IP			x	COM
Minimum wage/salary requirement – ICT			x	COM
Universal service obligations		x		COM
Contracts for universal services obligations assigned through grandfathering		x		SS
Contracts for universal service obligations awarded through competitive bidding		x		SS
Other conditions on supply of services	x	x	x	COM
Spectrum sharing		x		SS
VoIP operation allowed		x		SS
Labelling provisions beyond information requirements	x	x		SS
Zoning laws: Differential treatment		x		SS
Seasonal sales periods regulated	x	x		SS

Measure	M1	M3	M4	Sector scope
Laws or regulations impose restrictions on the nature or content of contracts	x	x		SS
Large stores are subject to different regulations/requirements than other types of stores (e.g. different tax policies)		x		SS
Regulation imposes an upper limit on shop opening hours		x		SS
Prepackaging of products subject to mandatory nominal quantities	x	x		SS
Consumer credit licences available to foreign retailers	x	x		SS
Directed credit schemes		x		SS
Restrictions on lending to non-residents for domestically licensed banks		x		SS
Commercial banks prohibited from engaging in securities activities		x		SS
Commercial banks prohibited from engaging in insurance activities		x		SS
Insurance companies prohibited from engaging in other financial activities: Banking		x		SS
Insurance companies prohibited from engaging in other financial activities: Securities		x		SS
Life insurance company authorized to supply non-life insurance services	x	x		SS
Non-life insurance company authorized to supply life insurance services	x	x		SS
Mandatory cession requirements (to domestic reinsurers)	x	x		SS
Percentage of insurance to be ceded to a domestic re-insurer	x	x		SS
Limits on the share of risks that can be ceded to foreign reinsurers	x	x		SS
Mandatory cessions by foreign-owned insurers to domestic reinsurers		x		SS
Cargo reservation	x			SS
Cargo reservation: bilateral/plurilateral cargo reservation	x			SS
Other cargo reservations or preferential schemes	x			SS
Unilateral cargo reservations	x			SS
Restrictions on the chartering of vessels	x			SS
Access to port services on reasonable and non-discriminatory terms and conditions	x			SS
Obligation to use local maritime and port services	x			SS
Obligation to use a local maritime port agent	x	x	x	SS
Discriminatory port tariffs and other port-related fees	x			SS
Restrictions on cargo-handling	x	x	x	SS
Restrictions on storage and warehouse services	x	x	x	SS
Restrictions on container-station and depot services	x	x	x	SS
Restrictions on sale & marketing and organising the ship's call	x	x		SS
Restrictions on pilotage and towing services	x	x	x	SS
Obligation to use local tug and tow services	x	x	x	SS
Other restrictions on auxiliary services	x	x	x	SS
Limit on ability to rent/hire/charter other forms of transport for the purpose of providing multimodal transport services	x			SS
Schedules for airport use	x	x	x	SS

Measure	M1	M3	M4	Sector scope
Slot trading - Barter trade allowed: Slots can be exchanged on a one-to-one basis	x	x	x	SS
Slot allocation system	x	x		SS
Slot allocation systems - Grandfathering: Air carriers are allowed to retain already allocated slots from one season to the next	x	x	x	SS
Slot allocation systems - First come first served: There is no administrative system in place and air carriers are allowed to schedule their flights simply taking into account expected delays at the busier airports	x	x	x	SS
Slot allocation systems - Auctioning: Slots are given to the highest bidder in an auction scheme organised by the authorities	x	x	x	SS
Slot allocation system - Discretionary allocation: Slots are allocated at the discretion of airport and other authorities or incumbent carriers	x	x	x	SS
Slot allocation systems - Other allocation: Allocation schemes which cannot be classified under any of the categories above, or combinations of these categories	x	x	x	SS
Slot trading - Monetary trade allowed: Air carriers are allowed to commercially exchange slots	x	x	x	SS
Airlines allowed to self-handle	x	x		SS
Airlines allowed to mutually-handle	x	x		SS
Third-party handling allowed	x	x		SS
Limits on number of third-party handlers (depending on airport's sizes)	x	x		SS
Interoperability/interlinking required	x			SS
Interswitching mandated		x		SS
Terminal running rights in place		x		SS
Bottleneck services regulated		x		SS
Track access for supply of services to ports mandated		x		SS
Track access for supply of services to terminals mandated		x		SS
Running rights mandated		x		SS
2. Conditions on service supplier				
Sector subsidies (incentives)	x	x	x	COM
Foreign suppliers treated less favourably regarding taxes and/or eligibility for subsidies	x	x	x	COM
Foreign suppliers are treated less favourably regarding eligibility to subsidies	x	x	x	COM
Financial guarantee requirement	x			COM
Liability insurance	x			COM
Technology transfer requirements		x		COM
Export performance requirements		x		COM
Restrictions on foreign subsidiaries		x		SS
Restrictions on foreign branches		x		SS
Foreign bank "branches" subject to endowment capital requirement		x		SS
Local operations limited by amount of capital		x		SS
Foreign bank "branches" subject to liquidity requirements		x		SS

Measure	M1	M3	M4	Sector scope
Foreign branches allowed to take all types of deposit-taking and lending		x		SS
Foreign branches limited to wholesale lending		x		SS
Local content requirement		x		COM
Local sourcing requirements imposed		x		SS
Training requirements		x		COM
Cross-border data processing: establishment required	x	x	x	HZ
Domestic data storage required	x	x	x	HZ
International data transfer or access prohibited	x	x	x	HZ
Managers requirements (nationality or residency)		x		COM
Managers must be nationals		x		COM
Managers must be residents		x		COM
Managers must be locally-licensed professional		x		SS
National employees requirements (number or share)		x		COM
National employees: Min. number required		x		COM
National employees: Min. percentage required		x		COM
National cabin crew employees: Min. percentage required		x		SS
National ground staff employees: Min. percentage required		x		SS
Hiring of locally-licensed professionals as employees permitted		x		SS
Ownership and operation of an international gateway permitted		x		SS
Foreign firms discriminated against on trademark protection	x	x	x	SS
Foreign retailers can set up their own recycling systems		x		SS
Access to main payments system		x		SS
Raising capital domestically restricted		x		SS
Access to Central Bank's discount window		x		SS
Non-discriminatory access to retail payment systems		x		SS
Non-discriminatory access to clearing houses		x		SS
Type of investment restricted	x			SS
Access to deposit insurance schemes		x		SS
Restrictions on the nature of assets in which insurers can hold funds		x		SS
Discriminatory financial requirements for foreign reinsurers	x			SS
Explicit discrimination in favour of local firms for domestic traffic	x	x		SS
Explicit discrimination in favour of local firms for international traffic	x	x		SS
Discriminatory environmental and/or security standards	x			SS

Measure	M1	M3	M4	Sector scope
3. Conditions on government procurement				
Memo: thresholds above which tender is mandated	x	x	x	COM
Limitations on foreign participation in public procurement	x	x	x	COM
Explicit access discrimination favours local firms in public procurement	x	x	x	COM
Procurement process affects conditions of competition in favour of local firms	x	x	x	COM
Preferences granted to national suppliers in government procurement	x	x	x	COM
Commercial presence requirement for government procurement	x		x	COM
Government procurement: international data transfer allowed	x	x	x	HZ
Government procurement: local data storage required	x	x	x	HZ
4. Other conditions on operations				
Limits on transfers		x	x	HZ
Restrictions on repatriation of earnings/profits		x		HZ
Limitations on cross-border transfers by customers	x			COM
Limitations affecting cross-border consumption of services	x			COM
Other forms of restriction	x	x	x	COM

Measure	M1	M3	M4	Sector scope
C. Measures affecting competition				
1. Conditions on conduct by firms				
Competition policy applies	x	x	x	COM
Practices punished		x		COM
Cross-subsidisation punished		X		COM
Price-fixing punished		x		COM
Dumping practices punished		x		COM
Product-tying practices		x		COM
Product tying regulated	x	x	x	COM
Carrier agreements exempt from competition law	x	x	x	SS
Vertical separation required	x	x	x	COM
Assessment of M&A		x		COM
Dialling parity required	x	x	x	SS
Number portability required	x	x	x	SS
Unbundling of the local loop required		x		SS
Vertical agreements: Territorial or customer group sales restrictions are subject to regulation	x	x	x	SS
Firms required to disclose confidential information	x	x	x	SS
Competitive entry/exit allowed		x		SS
Access capacity regulated		x		SS
Shipping agreements: Price fixing or quantity regulations are allowed	x			SS
Shipping agreement: Right of independent action mandated	x	x	x	SS
Shipping agreements: Confidential service contract mandated	x	x	x	SS
2. Governmental rights/prerogatives (including public ownership)				
National, state or provincial government have special voting rights (e.g. golden shares) in any firms in the sector		x		COM
Government controls at least one major firm in the sector		x		COM
Publicly-controlled firms subject to exclusion or exemption from general competition law		x		COM
Government can overrule decision of regulator		x		COM
Publicly-controlled firms or undertakings are subject to rules that affect the competition with private insurers		x		SS
Government Cargo	x			SS
3. Other measures affecting competition				
Dispute resolution mechanism available	x	x	x	COM
Arbitration structures in place to deal with reinsurance disputes	x	x		SS
Other restrictions in barriers to competition	x	x	x	COM
Memo: At least one dominant firm in the market segment considered		x		COM
Interconnection mandated	x	x	x	SS
Resale of public telecommunications services to other suppliers mandated	x	x	x	SS

Measure	M1	M3	M4	Sector scope
Access to and use of public telecommunications service mandated	x	x	x	SS
Collocation or site sharing mandated		x		SS
Secondary spectrum trading allowed	x	x		SS
Existence of a collateral registry and access of all lending institutions to collateral information	x	x		SS
Access to railway infrastructure mandated at national level		x		SS
Independence of infrastructure managers required		x		SS
Transfer of public funds between services and infrastructure management activities is prohibited		x		SS
Transfer or trading of infrastructure capacity is prohibited		x		SS
Functions relating to infrastructure access provided by rail firms		x		SS
Memo: Monopoly on infrastructure		x		SS
Industry representatives involved in setting entry and pricing regulations	x	x	x	COM

Measure	M1	M3	M4	Sector scope
D. Administrative procedures and regulatory transparency				
1. Administrative procedures				
Licensing decision within a certain period required		X	X	COM
Rules/requirements related to data flows applied and enforced uniformly	X	X	X	HZ
Right to appeal regulatory decisions	X	X	X	COM
Foreign firms have redress when business practices are perceived to restrict competition	X	x	X	COM
Average visa processing time (days)			X	HZ
Cost to obtain a business visa			X	HZ
Number of documents needed to obtain a business visa			X	HZ
Other conditions related to administrative procedures	x	x	x	COM
2. Regulatory transparency (including licensing)				
License criteria publicly available		x	x	COM
Licence allocation system/method described in law/policy		x	x	COM
Single window for submission of applications		x	x	COM
Obligation to inform applicants of reasons for license rejection		x	x	COM
Appeal procedures publicly available		x	x	COM
Prior notice of regulatory changes	x	x	x	COM
Public comments procedures open to interested persons, including foreign suppliers	x	x	x	COM
Licensing agreements publicly available		x	x	SS
Regulatory transparency, other	x	x	x	COM
Publishing Reference Interconnection Offer required	x	x		SS
Interconnection and/or access agreements made public	x	x		SS
Publication and filing of rail rates required	x			SS
Access fees and conditions developed and made public in advance		x		SS
3. Nature of regulatory authority (measures related to nature of regulator)				
Existence of regulatory authority for the sector	x	x	x	COM
Length of term of heads of the supervisory authority	x	x	x	SS
Full authority of supervisor over licensing and enforcement of prudential measures	x	x	x	SS
Discretionary control of government over funding of the supervisory agency	x	x	x	SS
Regulator independent from service supplier	x	x	x	COM
Regulator independent from sector ministry	x	x	x	COM
Regulatory authority for data transfers	x	x	x	HZ
Discretion in regulating cross-border data flows	x	x	x	HZ
Independent appeal authority	x	x	x	COM

Measure	M1	M3	M4	Sector scope
4. International standards				
Laws, regulations or relevant standard-setter require the use of or have adopted international standards	x	x	x	COM
National standards deviate from international standards	x	x	x	COM
Deviation from international standards: Basel standards	x	x		SS
Deviation from international standards: Accounting rules	x	x		SS
Deviation from international standards: Transparency and AML/CFT rules	x	x		SS
Deviation from international standards - transport	x	x	x	SS
5. Other regulatory environment and administrative procedures				
Monitoring of compliance with licensing requirements		x	x	COM

Measure	M1	M3	M4	Sector scope
E. Miscellaneous				
1. Miscellaneous measures				
Reciprocity requirement (unrelated to recognition)	x	x	x	COM
Other restrictions to movement of people			x	COM
Membership in professional associations closed to foreigners			x	SS
8 th and 9 th Freedom not granted in any bilateral agreement	x			SS
2. Miscellaneous, other				
Minimum floor space to be considered large format retail outlet (m ²)		x		SS
Memo - Market share of the monopoly		x		SS

ANNEX 2: LIST OF ECONOMIES COVERED, SOURCE AND GROUPS

2016

Economy	Source	Economy	Source
Argentina	WB-WTO	Lithuania	OECD
Australia	OECD	<i>Luxembourg</i>	OECD
Austria	OECD	Malaysia	WB-WTO
Bangladesh	WB-WTO	Mexico	OECD
Belgium	OECD	<i>Myanmar</i>	WB-WTO
Brazil	OECD	Netherlands	OECD
Canada	OECD	New Zealand	OECD
Chile	OECD	Nigeria	WB-WTO
China	OECD	<i>Norway</i>	OECD
Colombia	OECD	Oman	WB-WTO
Costa Rica	WB-WTO	Pakistan	WB-WTO
Czech Republic	OECD	Panama	WB-WTO
Denmark	OECD	Peru	WB-WTO
Dominican Rep.	WB-WTO	Philippines	WB-WTO
Ecuador	WB-WTO	Poland	OECD
Egypt	WB-WTO	Portugal	OECD
<i>Estonia</i>	OECD	Russian Federation	OECD
Finland	OECD	<i>Singapore</i>	WB-WTO
France	OECD	<i>Slovak Republic</i>	OECD
Germany	OECD	<i>Slovenia</i>	OECD
Greece	OECD	South Africa	OECD
<i>Hong Kong, China</i>	WB-WTO	Spain	OECD
Hungary	OECD	Sri Lanka	WB-WTO
<i>Iceland</i>	OECD	Sweden	OECD
India	OECD	<i>Switzerland</i>	OECD
Indonesia	OECD	<i>Chinese Taipei</i>	WB-WTO
Ireland	OECD	Thailand	WB-WTO
<i>Israel</i>	OECD	Tunisia	WB-WTO
Italy	OECD	Turkey	OECD
Japan	OECD	Ukraine	WB-WTO
Kazakhstan	WB-WTO	United Kingdom	OECD
Kenya	WB-WTO	United States	OECD
Korea, Republic of	OECD	Uruguay	WB-WTO
<i>Latvia</i>	OECD	Viet Nam	WB-WTO

Data for all economies are available for 2008-11, except the ones shown in *italics*.

2008-11

Albania	Greece	Pakistan
Algeria	Guatemala	Panama
Argentina	Honduras	Paraguay
Armenia	Hungary	Peru
Australia	India	Philippines
Austria	Indonesia	Poland
Bahrain, Kingdom of	Iran	Portugal
Bangladesh	Ireland	Qatar
Belarus	Italy	Romania
Belgium	Japan	Russian Federation
Bolivia, Plurinational State of	Jordan	Rwanda (2009)
Botswana (2009)	Kazakhstan	Saudi Arabia, Kingdom of
Brazil (2011)	Kenya	Senegal
Bulgaria	Korea, Republic of	South Africa
Burundi (2011)	Kuwait, the State of	Spain
Cambodia	Kyrgyz Republic	Sri Lanka
Cameroon	Lebanese Republic	Sweden
Canada	Lesotho	Tanzania
Chile	Lithuania	Thailand
China (2011)	Madagascar	Trinidad and Tobago
Colombia	Malawi	Tunisia
Costa Rica	Malaysia	Turkey
Côte d'Ivoire	Mali	Uganda
Czech Republic	Mauritius	Ukraine
Democratic Rep. of the Congo	Mexico (2011)	United Kingdom
Denmark	Mongolia	United States of America
Dominican Republic	Morocco	Uruguay
Ecuador	Mozambique	Uzbekistan
Egypt	Namibia	Venezuela, Bolivarian Rep. of
Ethiopia	Nepal	Viet Nam
Finland	Netherlands	Yemen
France	New Zealand	Zambia
Georgia	Nicaragua	Zimbabwe
Germany	Nigeria	
Ghana	Oman	

Data sourced from the previous World Bank exercise (see Borchert et al., 2012), with some adjustments, see Section 2. All data correspond to 2008, except as indicated otherwise.

ANNEX 3 SUMMARY OF THE COVERAGE OF SECTOR AND MODES

Sectors	Subsectors	Mode 1	Mode 3	Mode 4
Financial	Commercial banking (deposit-taking, lending)	X	X	X
	Non-life insurance (incl. MAT)	X	X	X
	Life insurance	X	X	X
	Reinsurance	X	X	X
Telecom	Telecom fixed (international and local)		X	X
	Telecom mobile		X	X
	Internet		X	X
Distribution	Retailing services	X	X	X
	Wholesale services	X	X	X
Transportation	Air passenger domestic and international		X	X
	Air freight domestic and international		X	X
	Maritime shipping international	X	X	X
	Maritime auxiliary (intermediation, other services)	X	X	X
	Road freight domestic and international	X	X	X
	Rail freight domestic and international	X	X	X
Professional	Accounting	X	X	X
	Auditing	X	X	X
	Legal advice domestic law ³⁰		X	X
	Legal representation on domestic law ¹¹		X	X
	Legal advice foreign law	X	X	X

Mode 1 content (apply to some sectors):

- i. Form of entry
- ii. Licensing/registration
- iii. Operations

Mode 3 content (apply to all sectors)

- i. Form of entry
- ii. Quantitative limits
- iii. Licensing/registration
- iv. Operations

Mode 4 content (apply mainly to all sectors for generic questions)³¹

- i. Form of entry
- ii. Quantitative limits
- iii. Licensing/qualification (apply only to professional services)
- iv. Operations

³⁰ Cross border legal advice/representation on domestic law is not covered, as it is unlikely/technically infeasible to provide the services via this mode.

³¹ Some generic questions on mode 4 are raised for consistency reasons across all sectors covered by this survey. In principle they will trigger the same responses. Such relevant restrictions may not be part of sector-specific legislation/regulation. However, even if regulation (e.g. immigration legislation) is of a general nature, insofar as it applies to the sector, information was reported accordingly. More detailed questions on mode 4 are included for professional services (licensing, qualifications)

ANNEX 4 SECTOR DEFINITIONS USED IN THE QUESTIONNAIRE

Distribution services

"Retail trade": Retail trade refers to the resale (sale without transformation) of new and used goods mainly to the general public for personal or household consumption or utilization, by shops, department stores, stalls, mail-order houses, hawkers and peddlers, consumer cooperatives etc. It is important to note that in principle any type of good may be sold by retailers. (derived from ISIC Rev. 4 definition). However there are a number of specialty retail sectors (e.g. pharmacies, car dealers) or some special types of goods (e.g. tobacco, alcohol, pharmaceutical products) in which the rules for distribution are contained in specific products regulation. When responding to this questionnaire you should take into account the laws, regulations rules, guidelines etc. which apply to the retail trade sector in general, and not the specifics relating to the retail sale of specific types of products, unless prompted explicitly. If there are any restrictions concerning the coverage of retail trade services in regulations (e.g. geographical areas, types of consumers, size of stores or prohibition of sale) please describe in the relevant questions, in particular those dealing with the scope of the service. Please also briefly indicate as relevant if there are laws, regulations, guidelines etc. which deal with specific types of goods sold by retailers. W/120 section 4C (CPC PROV. 631, 632, 6111, 6113, and 6121; and part of 8929)

"Wholesale trade": Wholesale is the resale (sale without transformation) of new and used goods to retailers, to industrial, commercial, institutional or professional users, or to other wholesalers, or involves acting as an agent or broker in buying goods for, or selling goods to, such persons or companies. Wholesale covers the activities of wholesale merchants or jobbers, industrial distributors, exporters, importers, and cooperative buying associations, sales branches and sales offices (but not retail stores). It is important to note that in principle any type of good may be sold by wholesalers. (derived from ISIC Rev. 4 definition). However there may be some specialty wholesale sectors (e.g. primary agricultural or mining products) or some special types of goods (e.g. tobacco, alcohol, pharmaceutical products) in which the rules for (wholesale) distribution are contained in specific products regulation. When responding to this questionnaire you should take into account the laws, regulations rules, guidelines etc. which apply to the wholesale trade sector in general, and not the specifics relating to the wholesale of specific types of products, unless prompted explicitly. Any restrictions concerning the coverage of wholesale trade services in regulations (e.g. geographical areas, types of consumers, or prohibition of sale of certain goods) please describe in the relevant questions, in particular those dealing with the scope of the service. Please also briefly indicate as relevant if there are laws, regulations, guidelines etc. which deal with specific types of goods sold by wholesalers. W/120 section 4B (CPC PROV. 621; 622; and part of 8929)

Financial services

"Life insurance services": Insurance underwriting services consisting in making payments upon the death of the policy holder, or at the end of an agreed term, with or without a profit element. For the purposes of this exercise, accident and health insurance services are not covered. W/120 section 7Aa (CPC 8121), EBOPS2010/EBOPS2010/2010 6.1.1

"Non-life insurance services": Non-life insurance or general insurance, provide payments depending on the loss from a particular financial event. General insurance is typically defined as any insurance that is not determined to be life insurance. It typically includes motor vehicle insurance, fire and other property damage insurance, pecuniary loss insurance, and general liability insurance. W/120 section 7Ab (CPC 8129), EBOPS2010 6.1.2 and 6.1.3

"Marine, Aviation and Transport (MAT) insurance" is a sub-item of "non-life insurance". It covers insurance of risks comprising maritime shipping, commercial aviation, space launching and freight (including satellites), with such insurance to cover one or both of the following: the goods being transported, the vehicle transporting the goods and any liability arising therefrom.

"Reinsurance": Reinsurance is a financial transaction by which risk is transferred (ceded) from an insurance company (cedant) to a reinsurance company (reinsurer) in exchange of a payment (reinsurance premium). When it is a reinsurer that cedes risk to another reinsurer, the service is called *retrocession*. Providers of reinsurance are professional reinsurers which are entities exclusively dedicated to the activity of reinsurance (e.g. SwissRe). Also in most jurisdictions insurance companies are allowed to participate in reinsurance. W/120 section 7Ac (part of CPC 81299), EBOPS2010 6.2

"Commercial banking": most services supplied by banks, such as acceptance of deposits and other repayable funds from the public, lending of all types, financial leasing, guarantees and commitments, and payment and money transmission services. If there are any restrictions concerning the coverage of those services in regulations, please describe in the relevant questions, in particular those dealing with the scope of service. For the purposes of this exercise, commercial banking does not include the services typically supplied by investment banks, such as brokerage or trading of securities, securities underwriting services, and mergers and acquisitions (M&A) and corporate reorganization services. Part of W/120 section 7B (CPC 81115-81119, 8113), EBOPS2010 7

"Retail Bank": A bank which provides checking and saving deposits, home loans, credit cards, and other similar services to all types of domestic consumers (includes consumers and firms).

"Central Bank's discount window": the practice whereby the central bank extends short-term loans secured by government bonds to financial institutions. The financial institutions can turn to the Central Bank for a loan, the interest that the Central Bank charges the bank is called the discount rate.

"Main payments system" refers to the main system used for moving funds, payments, and money between financial institutions.

Professional services

"Accounting": The collection, recording and extraction of financial information, and the summary of it in the form of a periodic profit and loss account, a balance sheet and a cash flow statement in accordance with legal, professional, and capital market requirements (e.g. accounting review, compilation of financial statements). Bookkeeping services are included here as the difference in regulation between accountants and book-keepers are typically small or not existent. In most jurisdictions, book-keeping is synonymous with accounting and is not separately regulated. If any divergence of regulation for book-keeping please describe in the questions relating to the scope of services. Part of W/120 section 1Ab (CPC 86212), part of EBOPS2010 10.2.1.2

"Auditing": The examination and assessment of the activities, controls, records and systems that underpin accounting information and reports. Financial audits are typically performed by firms of practicing accountants due to the specialist financial reporting knowledge they require. If any divergence of regulation for some specific auditing activities please describe in the questions relating to the scope of services. Part of W/120 section 1Ab (CPC 86211), part of EBOPS2010 10.2.1.2

"Legal advice on domestic law": General counseling, advice and drafting of documents and other related legal services concerning domestic law (i.e. the law of the jurisdiction under review), whether criminal law or other than criminal. Also covered are advisory services in statutory procedures of quasi-judicial bodies. The following are excluded: activities in relation to the administration of public justice (such as judges); and notaries who typically perform their activities as public officials and are subject to a different regulatory regime. Part of W/120 section 1Aa (CPC 8611, 8612-86120, 8613-86130), part of EBOPS2010 10.2.1.1

"Legal services: representation services on domestic law": Court appearances/oral arguments: Legal representation of one party's interest against another party, before the courts or other domestic judicial or quasi-judicial bodies, whether concerning criminal law or other than criminal. Also covered are representation services in statutory procedures of quasi-judicial bodies. The following are excluded: activities in relation to the administration of public justice (such as judges); and notaries who typically perform their activities as public officials and are subject to a different regulatory regime. Part of W/120 section 1Aa (CPC 8611, 8612-86120, 8613-86130), part of EBOPS2010 10.2.1.1

"Legal services: advice on foreign law (Legal advice/counseling)": General counseling, advice and drafting of documents and other related legal services concerning foreign or international law. International law includes advisory services in home country law (i.e. law of the country of the foreign supplier or foreign law), third country law, international law, as well as a right to appear in international commercial arbitration. It also covers advisory services in statutory procedures of quasi-judicial bodies. Excluded are activities in relation to the administration of public justice (such as judges); and notaries who typically perform their activities as public officials and are subject to a different regulatory regime. Part of W/120 section 1Aa (part of CPC 861), part of EBOPS2010 10.2.1.1

A "locally licensed" lawyer means a lawyer licensed in the host country to provide both domestic and international law. "Not locally licensed" means a professional licensed or otherwise allowed to practice only international law.

Telecommunication services

"Telecommunications – Fixed line, Mobile and Internet": This questionnaire seeks to gather information relating to the supply of fixed-line and mobile telephony telecommunication services, and Internet services (carrying of electronic signals (traffic) over the Internet, providing access to the Internet, providing telecommunications services on the Internet and similar distributed computer networks that rely on, but are not part of, the normal telecommunications network). Parts of W/120 section 2C (CPC 7521, 7522, 7523, 7529), parts of EBOPS2010 9.1

Transport services

a. Maritime transport

"Maritime freight shipping": this questionnaire covers the two main types of services offered by the maritime shipping industry, namely liner and tramp services, whether coastal or transoceanic. Cabotage is also covered. While there is no widely accepted definition for these terms, "liner" refers to those services by carriers operating in regular, advertised schedules with published dates of calls at ports. "Tramp" services, on the other hand, do not operate on fixed, scheduled routes. This type of shipping service is notably used to transport bulk cargo, although bulk freight can also operate on scheduled routes. A growing share of liner services is containerized. Both liner and non-liner (i.e. "tramp") shipping services should be considered, although certain measures may prevail in one particular segment. If a measure is applied to any of these shipping services, answers should be provided accordingly. All types of goods transported should be covered (e.g. frozen or refrigerated goods; bulk liquids or gases; dry bulk goods such as cereals, flour, cement or sand; letters and parcels; goods that have been containerized for ease of transport). Rental services of freight ships with crew are also covered. W/120 section 11Ab (CPC 7212), EBOPS2010 3.1.2

Note that when it comes to commercial presence, a distinction is made between establishing a commercial presence for flying the flag of the jurisdiction, and other forms of commercial presence of the shipping operators/ship-owners (e.g. marketing and sales of the service, providing business information). Further details are provided in relevant parts of the questionnaire.

If there are any restrictions concerning the coverage of the service in regulations (e.g. geographical areas or routes, type or quantity of cargo transported), please describe in the relevant questions, in particular those dealing with the scope of the service.

For all of the above: Charter services are not covered to the extent that they are subject to a different regulatory regime. Note that the scope of the questionnaire is mainly limited to commercial-establishment related measures (and accompanying movement of persons).

"Maritime cargo-handling, container station and depot, and storage and warehouse services": in general, regulatory frameworks (laws, regulations, rules, guidelines, etc.) deal with maritime cargo handling, container depot station, and storage and warehouse activities as a package, given that these activities are often conducted jointly and in an integrated manner. If there are any restrictions concerning the full coverage of this combination of services, please describe as appropriate when replying to questions, in particular those dealing with the scope of the service. Part of W/120 section 11Ha and 11Hb (part of CPC 741, 742), part of EBOPS2010 3.1.3

Maritime cargo handling services are activities exercised by stevedore companies, including terminal operators, but not including the direct activities of Dockers, when this workforce is organized independently of the stevedoring or terminal operator companies. The activities covered include the organization and supervision of:

- The loading/discharging of cargo to/from a ship;
- The lashing/unlashing of cargo;
- The reception/delivery and safekeeping of cargoes before shipment or after discharge.

"Container station and depot services" means activities consisting in storing containers, whether in port areas or inland, with a view to their stuffing/stripping, repairing and making them available for shipments.

"Maritime intermediation services": Maritime intermediation services cover maritime agency, freight forwarding and customs clearance services. In general, regulatory frameworks (laws, regulations, rules, guidelines, etc.) deal with these activities in conjunction, given that they are often conducted jointly and/or are substitutable. If there are any restrictions concerning the full coverage of this combination of services, please describe as appropriate when replying to questions. Note that this refers to intermediaries/agents which are not related (i.e. no direct investment relationship) with the maritime shipping operators or ship owners. In other words for commercial presence they are distinct from those covered under "other forms of commercial presence" in the maritime freight shipping questionnaire. Part of W/120 section 11Hc and part of 11Hd (Part of CPC 748 and 749), part of EBOPS2010 3.1.3

"Maritime agency services" are activities consisting in representing, within a given geographic area, as an agent the business interests of one or more shipping lines or shipping companies, for the following purposes:

- marketing and sales of maritime transport and related services, from quotation to invoicing, and issuance of bills of lading on behalf of the companies, acquisition and resale of the necessary related services, preparation of documentation, and provision of business information;

- acting on behalf of the companies organizing the call of the ship or taking over cargoes when required.

"*Freight forwarding services*" represent activities consisting of organizing and monitoring shipment operations on behalf of shippers, through the acquisition of transport and related services, preparation of documentation and provision of business information.

"*Customs clearance services*" (alternatively "customs house brokers' services") conduct activities consisting in carrying out on behalf of another party customs formalities concerning import, export or through transport of cargoes, whether this service is the main activity of the service provider or a usual complement of its main activity.

b. Road freight transport domestic and international services

"*Road freight transport services*" are defined as covering freight transportation and relevant rental of commercial vehicles with operator. This definition entails transportation of frozen or refrigerated goods, transportation of bulk liquids or gases, transportation of containerized freight, transportation of furniture, mail transportation, freight transportation by man- or animal-drawn vehicles and transportation of other freight, whether domestically or internationally. If there are any restrictions concerning the coverage of the service in regulations (e.g. geographical areas or routes, type or quantity of cargo transported), please describe in the relevant questions, in particular those dealing with the scope of the service. W/120 section 11Fb (CPC 7123), EBOPS2010 3.7.2

c. Rail freight transport domestic and international services

In rail transport, some economies have separation of network operator (usually sole operator) and rail service providers or carriers (usually more than one). In some economies, network operators also provide the rail services and/or lease the part of network to other carriers. In the subsequent parts of the survey, we are interested in the rail freight service providers (or carriers). Covered items are rail freight transportation of frozen or refrigerated goods, transportation of bulk liquids and gases, transportation of containerized freight, mail transportation and other freight. Inter-urban rail transport of freight is also covered. If there are any restrictions concerning the coverage of the service in regulations (e.g. geographical areas or routes, type or quantity of cargo transported), please describe in the relevant questions, in particular those dealing with the scope of the service. W/120 section 11Eb (CPC 7112), EBOPS2010 3.6.2

d. Air transport

"*Air freight domestic services*": this questionnaire focuses on domestic air transport of freight on a scheduled basis. It covers air transportation of individual articles and packages assembled and shipped in specially constructed shipping containers designed for ease of handling in transport. It includes air transportation services of letters and parcels. Part of W/120 section 11Cb (part of CPC 732), part of EBOPS2010 3.2.2

"*Air freight international services*": this questionnaire focuses on international air transport of freight on a scheduled basis. It covers air transportation of individual articles and packages assembled and shipped in specially constructed shipping containers designed for ease of handling in transport. It includes air transportation services of letters and parcels. Part of W/120 section 11Cb (part of CPC 732), part of EBOPS2010 3.2.2

"*Air passenger international services*": this questionnaire focuses on international air transport of passengers on a scheduled basis (pre-determined international routes/schedules). It covers the accompanying passenger baggage and other items that may be carried at no extra cost. Part of W/120 section 11Ca (part of CPC 731), part of EBOPS2010 3.2.1

"*Air passenger domestic services*": this questionnaire focuses on domestic air transport of passengers on a scheduled basis (pre-determined domestic routes/schedules). It covers the accompanying passenger baggage and other items that may be carried at no extra cost. Part of W/120 section 11Ca (C part of PC 731), part of EBOPS2010 3.2.1

"*Charter services*" are not covered in the air transport services questionnaires to the extent that they are subject to a different regulatory regime. Note that the scope of the questionnaire is mainly limited to commercial-establishment related measures (and accompanying movement of persons).

ANNEX 5 SCORING OF MEASURES

Category	Sub-category	Subcategory name	SECTOR/Common	Label	Answer	Score
A -Market entry	A1	Legal forms of entry	Common	Cross-border supply prohibited	yes	1
A -Market entry	A1	Legal forms of entry	Common	Commercial presence requirement as a condition for cross-border supply of the service	yes	0.75
A -Market entry	A1	Legal forms of entry	Financial	Commercial presence is required: deposit-taking	yes	0.25
A -Market entry	A1	Legal forms of entry	Financial	Commercial presence is required: Lending	yes	0.25
A -Market entry	A1	Legal forms of entry	Financial	Commercial presence is required: Payment services	yes	0.25
A -Market entry	A1	Legal forms of entry	Non-life insurance	Cross-border supply prohibited for MAT insurance	yes	1
A -Market entry	A1	Legal forms of entry	Financial	Commercial presence required to provide MAT insurance cross-border services	yes	0.75
A -Market entry	A1	Legal forms of entry	Non-life insurance	Residents must use services of resident insurance intermediary for MAT insurance	yes	0.25
A -Market entry	A1	Legal forms of entry	Distribution	Restrictions on franchising	yes	0.25
A -Market entry	A1	Legal forms of entry	Common	Foreign establishment prohibited	yes	1
A -Market entry	A1	Legal forms of entry	Financial	Branches of foreign establishment locally allowed	no	0.25
A -Market entry	A1	Legal forms of entry	Financial	Restrictions on foreign branches	yes	0.25
A -Market entry	A1	Legal forms of entry	Common	Foreign establishment of (or investment in) locally incorporated company allowed	no	0.5
A -Market entry	A1	Legal forms of entry	Professional	Foreign establishment of (or investment in) locally incorporated company allowed	no	0.25
A -Market entry	A1	Legal forms of entry	Common	Greenfield: Max. foreign ownership allowed (%)	numeric	
A -Market entry	A1	Legal forms of entry	Common	Joint venture requirement for foreign entity	yes	0.5
A -Market entry	A1	Legal forms of entry	Common	Domestic entity acquisition: Max. aggregate foreign ownership allowed (%)	numeric	
A -Market entry	A1	Legal forms of entry	Common	Domestic entity acquisition: controlling stake allowed (i.e. if minority ownership)	no	0.5

Category	Sub-category	Subcategory name	SECTOR/Common	Label	Answer	Score
A -Market entry	A1	Legal forms of entry	Professional	Equity restrictions apply to non-locally licensed professionals/firms	parent child	
A -Market entry	A1	Legal forms of entry	Professional	Majority of shareholders must be locally licensed	yes	0.5
A -Market entry	A1	Legal forms of entry	Transport and Telecom	Limits on share of capital that can be acquired by foreign investors in publicly-controlled state-controlled firms	yes	0.25
A -Market entry	A1	Legal forms of entry	Common	Domestic entity acquisition allowed	no	0.5
A -Market entry	A1	Legal forms of entry	Professional	Partnership with foreigner allowed	no	0.5
A -Market entry	A1	Legal forms of entry	Professional	Sole proprietorship allowed	no	0.125
A -Market entry	A1	Legal forms of entry	Professional	Commercial association prohibited between fully integrated practitioners and other professionals	yes	0.25
A -Market entry	A1	Legal forms of entry	Common	Board of directors: majority must be nationals	yes	0.25
A -Market entry	A1	Legal forms of entry	Common	Board of directors: majority should be residents	yes	0.25
A -Market entry	A1	Legal forms of entry	Professional	Board of directors: majority must be locally-licensed professionals	yes	0.25
A -Market entry	A1	Legal forms of entry	Common	Service-Supplying Employee (CSS) of a Firm Based Abroad - Allowed	no	0.25
A -Market entry	A1	Legal forms of entry	Common	Independent Professional as Contractual Service Provider (IP) – Allowed	no	0.25
A -Market entry	A1	Legal forms of entry	Professional, transport	Intra-Corporate Transferee (ICT) - Allowed	no	0.25
A -Market entry	A1	Legal forms of entry	Distribution, financial, maritime, telecom, transport aux.	Intra-Corporate Transferee (ICT) - Allowed	no	0.5
A -Market entry	A2	Quantitative measures	Financial	Demonstration of unavailability of service required	yes	0.75

Category	Sub-category	Subcategory name	SECTOR/Common	Label	Answer	Score
A -Market entry	A2	Quantitative measures	Common	Limits on the total number of suppliers/licences (numerical) or monopoly	yes	0.5
A -Market entry	A2	Quantitative measures	Telecom	Service provision is reserved for statutory monopoly or granted on an exclusive basis	yes	0.75
A -Market entry	A2	Quantitative measures	Common	ENT on number of suppliers (including if implemented through licensing process)	yes	0.5
A -Market entry	A2	Quantitative measures	Distribution	Limit on total number of suppliers (numerical) - large stores	yes	0.5
A -Market entry	A2	Quantitative measures	Distribution	ENT on number of supplier - large stores	yes	0.5
A -Market entry	A2	Quantitative measures	Common	Quotas - Contractual service supplier	yes	0.125
A -Market entry	A2	Quantitative measures	Common	Quotas - Independent Professionals	yes	0.125
A -Market entry	A2	Quantitative measures	Professional, transport	Quotas - Intra-Corporate Transferees	yes	0.125
A -Market entry	A2	Quantitative measures	Distribution, financial, maritime telecom, transport aux.	Quotas - Intra-Corporate Transferees	yes	0.25
A -Market entry	A2	Quantitative measures	Common	ENT/LMT - Contractual service supplier	yes	0.125
A -Market entry	A2	Quantitative measures	Common	ENT/LMT - Independent professionals	yes	0.125
A -Market entry	A2	Quantitative measures	Professional, transport	ENT/LMT - Intra-Corporate Transferees	yes	0.125
A -Market entry	A2	Quantitative measures	Distribution, financial, maritime telecom, transport aux.	ENT/LMT - Intra-Corporate Transferees	yes	0.25
A -Market entry	A2	Quantitative measures	Professional	Limit on share of foreigners employed per company	yes	0.25
A -Market entry	A3	Conditions on licensing and market entry	Common	Screening of investment: Subject to evidence of economic benefits	yes	0.25

Category	Sub-category	Subcategory name	SECTOR/Common	Label	Answer	Score
A -Market entry	A3	Conditions on licensing and market entry	Common	Screening: approval unless contrary to national interest	yes	0.25
A -Market entry	A3	Conditions on licensing and market entry	Professional	Nationality or citizenship required for license to practice	yes	0.75
A -Market entry	A3	Conditions on licensing and market entry	Professional	Prior or permanent residency required for license to practice	yes	0.5
A -Market entry	A3	Conditions on licensing and market entry	Professional	Mandatory additional domestic education	yes	0.5
A -Market entry	A3	Conditions on licensing and market entry	Professional	Recognition of education and training/work experience	no	0.5
A -Market entry	A3	Conditions on licensing and market entry	Professional	Laws or regulations establish a process for recognising higher education degrees earned abroad	no	0.5
A -Market entry	A3	Conditions on licensing and market entry	Financial	Criteria to obtain a licence are different foreign companies	yes	0.25
A -Market entry	A4	Other conditions of market entry	Horizontal	Acquisition and/or rental of land and real estate by foreigners prohibited	yes	0.25
B- Operations	B1	Conditions on supply of services	Common	Limits on scope of service (numerical and non-numerical)	yes	0.25
B- Operations	B1	Conditions on supply of services	Financial	Approval by regulatory authority required for new products or services	yes	0.125
B- Operations	B1	Conditions on supply of services	Financial	Number of branches restricted	yes	0.25
B- Operations	B1	Conditions on supply of services	Financial	Number of ATMs restricted	yes	0.25
B- Operations	B1	Conditions on supply of services	Financial	Regulated contractual interest rates	yes	0.125
B- Operations	B1	Conditions on supply of services	Financial	Some banking services reserved for domestic suppliers	yes	0.25
B- Operations	B1	Conditions on supply of services	Financial	Regulated interest rates for deposits	yes	0.125

Category	Sub-category	Subcategory name	SECTOR/Common	Label	Answer	Score
B- Operations	B1	Conditions on supply of services	Financial	Mandatory cession requirements (to domestic reinsurers)	parent child	
B- Operations	B1	Conditions on supply of services	Financial	Percentage of insurance to be ceded to a domestic reinsurer	numeric	
B- Operations	B1	Conditions on supply of services	Telecom	VoIP operation allowed	no	0.25
B- Operations	B1	Conditions on supply of services	Transport	Quota for private cargo: Bulk	yes	0.25
B- Operations	B1	Conditions on supply of services	Transport	Quota for private cargo: Liner	yes	0.25
B- Operations	B1	Conditions on supply of services	Transport	Obligation to use local maritime and port services	yes	0.25
B- Operations	B1	Conditions on supply of services	Transport	Obligation to use a local maritime port agent	yes	0.25
B- Operations	B1	Conditions on supply of services	Transport	Restrictions on maritime auxiliary services	yes	0.5
B- Operations	B1	Conditions on supply of services	Transport	Port services serving own-ships allowed	no	0.25
B- Operations	B1	Conditions on supply of services	Transport	Slot trading - Barter trade allowed: Slots can be exchanged on a one-to-one basis	no	0.25
B- Operations	B1	Conditions on supply of services	Transport	Slot trading - Monetary trade allowed: Air carriers are allowed to commercially exchange slots	no	0.25
B- Operations	B1	Conditions on supply of services	Professional	Restrictions on name	yes	0.25
B- Operations	B1	Conditions on supply of services	Distribution	Regulations limit the range of products a retailer may carry	yes	0
B- Operations	B1	Conditions on supply of services	Distribution	Zoning laws: Differential treatment	yes	0.25
B- Operations	B1	Conditions on supply of services	Distribution	Restrictions on the number of outlets	yes	0.5
B- Operations	B1	Conditions on supply of services	Telecom	Interconnection prices and conditions are regulated	no	0.125
B- Operations	B1	Conditions on supply of services	Telecom	Local loop unbundling prices regulated	no	0.125

Category	Sub-category	Subcategory name	SECTOR/Common	Label	Answer	Score
B- Operations	B2	Conditions on services suppliers	Common	Managers must be nationals	yes	0.25
B- Operations	B2	Conditions on services suppliers	Common	National employees: Min. percentage required	yes	0.25
B- Operations	B2	Conditions on services suppliers	Common	International data transfer/access constrained or prohibited	yes	0.25
B- Operations	B2	Conditions on services suppliers	Common	Foreign suppliers treated less favourably regarding taxes and/or eligibility for subsidies	yes	0.25
B- Operations	B2	Conditions on services suppliers	Horizontal	International data transfer: distinction between economies/regions	yes	0.25
B- Operations	B2	Conditions on services suppliers	Professional	Hiring of locally-licensed professionals as employees prohibited	yes	0.25
B- Operations	B2	Conditions on services suppliers	Telecom	Ownership and operation of an international gateway permitted	no	0.25
B- Operations	B2	Conditions on supply of services	Financial	Foreign branches allowed to take all types of deposit-taking and lending	no	0.25
B- Operations	B2	Conditions on supply of services	Financial	Foreign bank "branches" subject to endowment capital requirement	yes	0.25
B- Operations	B3	Conditions on government procurement	Transport	Quota for government cargo: Bulk	yes	0.125
B- Operations	B3	Conditions on government procurement	Transport	Quota for government cargo: Liner	yes	0.125
B- Operations	B4	Conditions on supply of services	Horizontal	Limits on subsequent transfer of capital and investments	yes	0.25
C- Competition	C1	Conditions on conduct of firms	Transport	Carrier agreements exempt from competition law	yes	0.25
C- Competition	C1	Conditions on conduct of firms	Telecom	Unbundling of the local loop required	no	0.25
C- Competition	C3	Other measures	Transport	Industry representatives involved in setting entry and pricing regulations	yes	0.125
C- Competition	C3	Other measures	Telecom	Interconnection mandated	no	0.25

Category	Sub-category	Subcategory name	SECTOR/Common	Label	Answer	Score
D- Administrative procedures and regulatory transparency	D1	Regulatory transparency	Common	Prior notice of regulatory changes	no	0.125
D- Administrative procedures and regulatory transparency	D1	Regulatory transparency	Financial	Obligation to inform applicants of reasons for license rejection	no	0.125
D- Administrative procedures and regulatory transparency	D1	Regulatory transparency	Telecom	Interconnection and/or access agreements made public	no	0.125
D- Administrative procedures and regulatory transparency	D4	Administrative procedures	Common	Right to appeal regulatory decisions	no	0.125

Mode 3 synthetic measures and scoring

Weights given to the different types of Mode 3 entries by sector:

- All sectors except Financial and Professional services:
 - Greenfield investment 50%
 - Acquisition 50%

- Financial services
 - Greenfield investment 37.5%
 - Acquisition 37.5%
 - Branches 25%

- Professional services
 - Greenfield investment 18.75%
 - Acquisition 18.75%
 - Partnership 50%
 - Sole proprietorship 12.5%

Category	Sub-category	Sub-category name	Sub-sector	Type of Measures	Answer	No. of Answers	Score
B. Operations	B2	Conditions on services suppliers	Legal services	National employees: Min. percentage required, Hiring of locally-licensed professionals as employees prohibited	yes	2	0.5
B. Operations	B2	Conditions on services suppliers	Legal services	Hiring of locally-licensed professionals as employees prohibited	yes	1	0.25
B. Operations	B2	Conditions on services suppliers	Legal services	National employees: Min. percentage required	yes	1	0.25

Mode 4 synthetic measures and scoring

Category	Sub-cat.	Sub-category	Sub-sector	Type of Measures	Service	Answer	No. of Answers	Score
A. Market entry	A1	Legal forms of entry	Professional	Entry	Intra-corporate transferees, Contractual service suppliers, Independent suppliers	no	3	1
A. Market entry	A1	Legal forms of entry	Professional	Entry	Intra-corporate transferees, Independent suppliers	no	2	0.75
A. Market entry	A1	Legal forms of entry	Professional	Entry	Contractual service suppliers, Independent suppliers	no	2	0.5
A. Market entry	A1	Legal forms of entry	Professional	Entry	Intra-corporate transferees, Contractual service suppliers	no	2	0.5
A. Market entry	A1	Legal forms of entry	Professional	Entry	Intra-corporate transferees	no	1	0.25
A. Market entry	A1	Legal forms of entry	Professional	Entry	Contractual service suppliers	no	1	0.25
A. Market entry	A1	Legal forms of entry	Professional	Entry	Independent suppliers	no	1	0.25
A. Market entry	A1	Legal forms of entry	Transport (except maritime aux.)	Entry	Intra-corporate transferees, Contractual service suppliers, Independent suppliers	no	3	1
A. Market entry	A1	Legal forms of entry	Transport (except maritime aux.)	Entry	Intra-corporate transferees, Independent suppliers	no	2	0.5
A. Market entry	A1	Legal forms of entry	Transport (except maritime aux.)	Entry	Contractual service suppliers, Independent suppliers	no	2	0.75
A. Market entry	A1	Legal forms of entry	Transport (except maritime aux.)	Entry	Intra-corporate transferees, Contractual service suppliers	no	2	0.5
A. Market entry	A1	Legal forms of entry	Transport (except maritime aux.)	Entry	Intra-corporate transferees	no	1	0.25
A. Market entry	A1	Legal forms of entry	Transport (except maritime aux.)	Entry	Contractual service suppliers	no	1	0.25
A. Market entry	A1	Legal forms of entry	Transport (except maritime aux.)	Entry	Independent suppliers	no	1	0.25
A. Market entry	A1	Legal forms of entry	Distribution, telecom, financial, maritime aux.	Entry	Intra-corporate transferees, Contractual service suppliers, Independent suppliers	no	3	1
A. Market entry	A1	Legal forms of entry	Distribution, telecom, financial, maritime aux.	Entry	Intra-corporate transferees, Contractual service suppliers	no	2	0.75
A. Market entry	A1	Legal forms of entry	Distribution, telecom, financial, maritime aux.	Entry	Intra-corporate transferees, Independent suppliers	no	2	0.75
A. Market entry	A1	Legal forms of entry	Distribution, telecom, financial, maritime aux.	Entry	Contractual service suppliers, Independent suppliers	no	2	0.5
A. Market entry	A1	Legal forms of entry	Distribution, telecom, financial, maritime aux.	Entry	Contractual service suppliers	no	1	0.25
A. Market entry	A1	Legal forms of entry	Distribution, telecom, financial, maritime aux.	Entry	Independent suppliers	no	1	0.25

Category	Sub-cat.	Sub-category	Sub-sector	Type of Measures	Service	Answer	No. of Answers	Score
A. Market entry	A1	Legal forms of entry	Distribution, telecom, financial, maritime aux.	Entry	Intra-corporate transferees	no	1	0.5
A. Market entry	A2	Quantitative measures	Professional	Quotas	Intra-corporate transferees, Contractual service suppliers, Independent suppliers	yes	3	0.5
A. Market entry	A2	Quantitative measures	Professional	Quotas	Intra-corporate transferees, Independent suppliers	yes	2	0.5
A. Market entry	A2	Quantitative measures	Professional	Quotas	Contractual service suppliers, Independent suppliers	yes	2	0.25
A. Market entry	A2	Quantitative measures	Professional	Quotas	Intra-corporate transferees, Contractual service suppliers	yes	2	0.25
A. Market entry	A2	Quantitative measures	Professional	Quotas	Intra-corporate transferees	yes	1	0.125
A. Market entry	A2	Quantitative measures	Professional	Quotas	Contractual service suppliers	yes	1	0.125
A. Market entry	A2	Quantitative measures	Professional	Quotas	Independent suppliers	yes	1	0.125
A. Market entry	A2	Quantitative measures	Transport (except maritime aux.)	Quotas	Intra-corporate transferees, Contractual service suppliers, Independent suppliers	yes	3	0.5
A. Market entry	A2	Quantitative measures	Transport (except maritime aux.)	Quotas	Intra-corporate transferees, Independent suppliers	yes	2	0.25
A. Market entry	A2	Quantitative measures	Transport (except maritime aux.)	Quotas	Contractual service suppliers, Independent suppliers	yes	2	0.5
A. Market entry	A2	Quantitative measures	Transport (except maritime aux.)	Quotas	Intra-corporate transferees, Contractual service suppliers	yes	2	0.25
A. Market entry	A2	Quantitative measures	Transport (except maritime aux.)	Quotas	Intra-corporate transferees	yes	1	0.125
A. Market entry	A2	Quantitative measures	Transport (except maritime aux.)	Quotas	Contractual service suppliers	yes	1	0.125
A. Market entry	A2	Quantitative measures	Transport (except maritime aux.)	Quotas	Independent suppliers	yes	1	0.125
A. Market entry	A2	Quantitative measures	Distribution, telecom, financial, maritime aux.	Quotas	Intra-corporate transferees, Contractual service suppliers, Independent suppliers	yes	3	0.5
A. Market entry	A2	Quantitative measures	Distribution, telecom, financial, maritime aux.	Quotas	Intra-corporate transferees, Contractual service suppliers	yes	2	0.5
A. Market entry	A2	Quantitative measures	Distribution, telecom, financial, maritime aux.	Quotas	Intra-corporate transferees, Independent suppliers	yes	2	0.5
A. Market entry	A2	Quantitative measures	Distribution, telecom, financial, maritime aux.	Quotas	Contractual service suppliers, Independent suppliers	yes	2	0.25
A. Market entry	A2	Quantitative measures	Distribution, telecom, financial, maritime aux.	Quotas	Contractual service suppliers	yes	1	0.125
A. Market entry	A2	Quantitative measures	Distribution, telecom, financial, maritime aux.	Quotas	Independent suppliers	yes	1	0.125
A. Market entry	A2	Quantitative measures	Distribution, telecom, financial, maritime aux.	Quotas	Intra-corporate transferees	yes	1	0.25

Category	Sub-cat.	Sub-category	Sub-sector	Type of Measures	Service	Answer	No. of Answers	Score
A. Market entry	A2	Quantitative measures	Professional	ENT/LMT	Intra-corporate transferees, Contractual service suppliers, Independent suppliers	yes	3	0.5
A. Market entry	A2	Quantitative measures	Professional	ENT/LMT	Intra-corporate transferees, Independent suppliers	yes	2	0.5
A. Market entry	A2	Quantitative measures	Professional	ENT/LMT	Contractual service suppliers, Independent suppliers	yes	2	0.25
A. Market entry	A2	Quantitative measures	Professional	ENT/LMT	Intra-corporate transferees, Contractual service suppliers	yes	2	0.25
A. Market entry	A2	Quantitative measures	Professional	ENT/LMT	Intra-corporate transferees	yes	1	0.125
A. Market entry	A2	Quantitative measures	Professional	ENT/LMT	Contractual service suppliers	yes	1	0.125
A. Market entry	A2	Quantitative measures	Professional	ENT/LMT	Independent suppliers	yes	1	0.125
A. Market entry	A2	Quantitative measures	Transport (except maritime aux.)	ENT/LMT	Intra-corporate transferees, Contractual service suppliers, Independent suppliers	yes	3	0.5
A. Market entry	A2	Quantitative measures	Transport (except maritime aux.)	ENT/LMT	Intra-corporate transferees, Independent suppliers	yes	2	0.25
A. Market entry	A2	Quantitative measures	Transport (except maritime aux.)	ENT/LMT	Contractual service suppliers, Independent suppliers	yes	2	0.5
A. Market entry	A2	Quantitative measures	Transport (except maritime aux.)	ENT/LMT	Intra-corporate transferees, Contractual service suppliers	yes	2	0.25
A. Market entry	A2	Quantitative measures	Transport (except maritime aux.)	ENT/LMT	Intra-corporate transferees	yes	1	0.125
A. Market entry	A2	Quantitative measures	Transport (except maritime aux.)	ENT/LMT	Contractual service suppliers	yes	1	0.125
A. Market entry	A2	Quantitative measures	Transport (except maritime aux.)	ENT/LMT	Independent suppliers	yes	1	0.125
A. Market entry	A2	Quantitative measures	Distribution, telecom, financial, maritime aux.	ENT/LMT	Intra-corporate transferees, Contractual service suppliers, Independent suppliers	yes	3	0.5
A. Market entry	A2	Quantitative measures	Distribution, telecom, financial, maritime aux.	ENT/LMT	Intra-corporate transferees, Contractual service suppliers	yes	2	0.5
A. Market entry	A2	Quantitative measures	Distribution, telecom, financial, maritime aux.	ENT/LMT	Intra-corporate transferees, Independent suppliers	yes	2	0.5
A. Market entry	A2	Quantitative measures	Distribution, telecom, financial, maritime aux.	ENT/LMT	Contractual service suppliers, Independent suppliers	yes	2	0.25
A. Market entry	A2	Quantitative measures	Distribution, telecom, financial, maritime aux.	ENT/LMT	Contractual service suppliers	yes	1	0.125
A. Market entry	A2	Quantitative measures	Distribution, telecom, financial, maritime aux.	ENT/LMT	Independent suppliers	yes	1	0.125
A. Market entry	A2	Quantitative measures	Distribution, telecom, financial, maritime aux.	ENT/LMT	Intra-corporate transferees	yes	1	0.25

ANNEX 6 SECTORAL AND MODAL WEIGHTS

Table 6.1

Sector	Percent in total value added	Weight
Commercial banking services	6.6	15.7
Insurance services	1.6	3.8
Telecom services	2.7	6.4
Retail services	9.6	22.9
Wholesale services	8.7	20.8
Air transport services	0.6	1.4
Maritime shipping services	0.8	1.9
Maritime auxiliary services	1.0	2.5
Road freight services	2.0	4.8
Rail freight services	2.0	4.8
Professional services	6.3	15
Total	41.9	100.0

Note: The sectoral weights were estimated using the share of individual services industry's 2013 value added in the total economy for the 26 economies for which all data were available.

Table 6.2

Sector	Mode 1	Mode 3	Mode 4
Commercial banking services	15	75	10
Direct insurance services (life and non-life)	10	80	10
Reinsurance services	70	20	10
International air passenger and freight transport serv.	50	30	20
Domestic air passenger and freight transport services		80	20
Telecom services		90	10
Maritime freight shipping services	60	20	20
Maritime intermediation services	20	70	10
Maritime other auxiliary services		90	10
Retail services	20	70	10
Wholesale services	20	70	10
Rail freight services	20	70	10
Road freight services		75	25
Accounting and auditing, foreign law services	20	40	40
Local law advisory and representation services		50	50

Note: For the comparison between 2008-11 and 2016 mode 4 is only included for professional services, and the weights for other sectors are adjusted accordingly (i.e. adding the weights to other modes proportionally). A similar approach is adopted for mode 1 for retail and rail

ANNEX 7 LIST OF LAW FIRMS THAT CONTRIBUTED TO FILLING QUESTIONNAIRES

Country	Firm	Address	Website
Argentina	EDN Abogados	Nueva Costanera 3698, Of. 405 Vitacura, Santiago, Chile	https://www.ednabogados.cl
Bangladesh	Dr. Kamal Hossain & Associates	Chamber Building, 122-124 Motijheel C/A, Dhaka, Bangladesh	https://www.khossain.com
Costa Rica	BLP Legal	BLP Building, 4th floor. Via Lindora Business Center. Radial Santa Ana – Belen, Km 3. Santa Ana, San Jose. Costa Rica	https://www.blplegal.com
Dominican Republic	Jiménez Cruz Peña	Av. Winston Churchill 1099, Citi Tower, Piso 14, Santo Domingo, D. N. 10148	http://www.jcldr.com
Ecuador	Pérez Bustamante & Ponce	Av. República de El Salvador, N36-140, Edif. Mansión Blanca, 170505 Quito, Ecuador	https://www.pbplaw.com/es/#modal
Egypt	Al Kamel Law Office	Dokki Building, 17, Nabil El Wakkad Street, Dokki, Giza, Cairo, Egypt	http://www.kamelaw.com
Hong Kong	Squire Patton Boggs	29/F, Edinburgh Tower, The Landmark, 15 Queen's Road Central, Hong Kong, China	https://www.squirepattonboggs.com/en
Kazakhstan	GRATA Law Firm LLP	104 M. Ospanov Street, Almaty, Kazakhstan	https://gratanet.com
Kenya	Anjarwalla & Khanna Advocates	ALN House, Eldama Ravine Close, Off Eldama Ravine Road, Westland, Nairobi, Kenya	https://www.africalegalnetwork.com/kenya
Malaysia	Raja, Darryl & Loh	Level 26, Menara Hong Leong, No. 6, Jalan Damanlela, Bukit Damansara, 50490, Kuala Lumpur, Malaysia	https://rajadarrylloh.com
Myanmar	DFDL Myanmar	134/A, Than Lwin Road, Golden Valley Ward, Bahan Township, Yangon 11201, Myanmar	https://www.dfdl.com/locations/myanmar
Nigeria	Udo Udoma & Belo-Osagie	13th Floor, St. Nicholas House, Catholic Mission Street, Lagos, Nigeria	https://www.uubo.org
Oman	Al Busaidy Mansoor Jamal & Co.	Muscat International Centre, P.O. Box 686, Ruwi, Muscat, Oman	https://www.amjoman.com
Pakistan	Abraham & Sarwana	PIDC House, Mezzanine Floor, Dr. Ziauddin Road, Karachi, PAKISTAN	http://www.abraham-sarwana.com
Panama	Alfaro, Ferrer & Ramirez	Ave. Samuel Lewis y Calle 54, Edificio AFRA, Piso 10, Panama	https://www.afra.com
Peru	Philippi Prietocarrizosa Ferrero DU & Uría	Av. Sta. Cruz 888, Miraflores 15074, Lima, Peru	https://www.ppulegal.com
Philippines	Angara Abello Concepcion Regala & Cruz Law Offices	22/F, ACCRALAW Tower, 2nd. Ave. cor. 30th. St., Crescent Park West, Bonifacio Global City 0399 Taguig, Metro Manila, Philippines	http://www.conventuslaw.com/law-firm/accralaw

Singapore	DFDL Singapore Pte Ltd (working in collaboration with Gateway Law Corporation)	61 Robinson Road, #12-03 Robinson Centre, Singapore 068893, Singapore	https://www.dfdl.com
Sri Lanka	Julius & Creasy	No 41, Janadhipathi Mawatha, (Queen Street), P.O. Box 154, Colombo 01, Sri Lanka	http://www.juliusandcreasy.com
Chinese Taipei	Eiger	Bldg. A, 12F, 25-2 Ren Ai Rd, Sec. 4 Taipei 10685 Chinese Taipei	https://www.eiger.law
Thailand	Tilleke & Gibbins	Supalai Grand Tower, 26th Floor, 1011 Rama 3 Road, Chongnonsi, Yannawa, Bangkok 10120, Thailand	https://www.tilleke.com
Tunisia	Ferchiou & Associés	34 Place du 14 Janvier 1001 Tunis, Tunisie	http://www.ferchioulaw.com
Ukraine	Asters	19-21 Bogdana Khmelnytskoho St., Kyiv, Ukraine	https://www.asterslaw.com
Uruguay	Guyer & Regules	Plaza Independencia 811 PB, Montevideo, Uruguay	https://www.guyer.com.uy/en
Vietnam	LuatViet Advocates & Solicitors	Unit 03-0A, 3rd floor, Pan Pacific Hanoi, No.1 Thanh Nien Street, Ba Dinh District, Hanoi, Vietnam	https://luatviet.com