

Please cite this paper as:

Miroudot, S. and K. Pertel (2015-10-01), "Water in the GATS: Methodology and Results", *OECD Trade Policy Papers*, No. 185, OECD Publishing, Paris.
<http://dx.doi.org/10.1787/5jrs6k35nnf1-en>



OECD Trade Policy Papers No. 185

Water in the GATS

METHODOLOGY AND RESULTS

Sébastien Miroudot,
Kätlin Pertel

OECD TRADE POLICY PAPERS

This paper is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and the arguments employed herein do not necessarily reflect the official views of OECD countries.

The publication of this document has been authorised by Ken Ash, Director of the Trade and Agriculture Directorate

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

This document has been declassified on the responsibility of the Working Party of the Trade Committee under the OECD reference number TAD/TC/WP(2014)19/FINAL.

Comments on the series are welcome and should be sent to tad.contact@oecd.org.

OECD TRADE POLICY PAPERS
are published on www.oecd.org/trade.

© OECD (2015)

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for commercial use and translation rights should be submitted to rights@oecd.org.

Abstract

WATER IN THE GATS: METHODOLOGY AND RESULTS

Sébastien Miroudot and Kätlin Pertel, OECD

The water in the General Agreement on Trade in Services (GATS) refers to the difference between the bound level of trade restrictiveness permitted by the GATS and the actual trade regime. Using the OECD Services Trade Restrictiveness Index (STRI), this report provides estimates of the water in 15 service sectors for 40 countries. The level of water in GATS commitments varies across sectors. It is highest in sectors where most countries have no commitments (unbound), such as audio-visual services or transport services, as well as sectors where countries tend to make commitments only for selected types of activities, such as legal services. The lowest level of water is observed in sectors such as telecoms, construction, computer and distribution services that are also characterised by a more liberal trade regime. Generally speaking, current services trade policies are much more open than what countries have committed in the GATS and sectors that are “unbound” can be fairly open.

Keywords: GATS, GATS commitments, services trade restrictions, services trade policy

JEL classification: F13, F53

Acknowledgements

The authors would like to thank Crawford Falconer, Massimo Geloso-Grosso, Frédéric Gonzales, Hildegunn Nordås and Raed Safadi for useful comments and inputs. The paper benefitted from discussions in the OECD Working Party of the Trade Committee, which has agreed to make the study more widely available through declassification on its responsibility.

Table of contents

Executive summary.....	4
Water in the GATS: methodology and results	6
1. What is the “water” in the GATS?	7
2. Methodology to estimate the “water” in the GATS.....	9
3. Results	13
3.1. Average water by STRI sector and by country	13
3.2. Detailed results across sectors and countries.....	16
3.3. Water by policy area and main measures creating water	27
4. Concluding remarks	28
References	30
Annex A. GATS commitments in STRI sectors.....	31
Annex B. Classification of STRI measures	33

Tables

Table A.1. Number of countries with specific commitments, by STRI sector	31
Table A.2. Number of STRI sectors with specific commitments, by country	32

Figures

Figure 1. MA and NT measures versus domestic regulation and other measures	9
Figure 2. Calculation of the water in the GATS	11
Figure 3. Average water by STRI sector.....	14
Figure 4. Average water in the GATS and average level of trade restrictiveness	15
Figure 5. Average water by country and average MA/NT STRI.....	15
Figure 6. Water in GATS commitments for computer services.....	16
Figure 7. Water in GATS commitments for construction, architecture and engineering services	18
Figure 8. Water in GATS commitments for legal and accounting services	20
Figure 9. Water in GATS commitments for telecommunication services	21
Figure 10. Water in GATS commitments for distribution services.....	22
Figure 11. Water in GATS commitments for audio-visual services	23
Figure 12. Water in GATS commitments for transport and courier services	25
Figure 13. Average water by policy area.....	27

Executive Summary

The OECD Services Trade Restrictiveness Index (STRI) offers a unique opportunity to compare the legal commitments undertaken by WTO Members in the General Agreement on Trade in Services (GATS) with their actual trade regime. In the GATS, countries make market access and national treatment commitments that represent their bound level of trade restrictiveness. With the STRI, we can analyse how far applied policies are from the maximum trade restrictiveness allowed by the GATS. The difference between the two is called the “water in the GATS” by analogy with the “water” in tariffs (which is the difference between bound and applied tariffs).

To estimate the water in 15 service sectors for 40 countries, we create GATS indices with the same methodology used in the STRI. For measures related to domestic regulation, the information is kept unchanged. But the market access and national treatment measures are modified on the basis of GATS schedules of specific commitments. All measures are scored as restrictive as the GATS allows it. The water is then simply the difference between these indices and the actual STRIs.

The comparison between the STRI database and GATS commitments is not always straightforward. The language can be very different between current laws and regulations and what trade negotiators have scheduled when GATS was signed in 1994. Moreover, the commitments are not always undertaken for the same sector as the one defined in the STRI. A conservative approach was adopted in order to not overestimate the water in the GATS and the results are not meant to represent a definitive legal interpretation nor a precise measure of the water in each sector. There is a margin for errors and the “fog” in GATS commitments that some authors have described also comes out of their water.

The level of water in GATS commitments varies across sectors. It is highest in sectors where most countries have no commitments (unbound), such as audio-visual services or transport services, as well as sectors where countries tend to make commitments only for selected types of activities, such as legal services. In the case of accounting, architecture and engineering services, the water is relatively high but these sectors are generally not unbound, suggesting that actual regulations differ from the restrictions listed in the GATS. The lowest level of water is observed in sectors such as telecoms, construction, computer and distribution services and these are the very sectors that are also characterised by a more liberal trade regime relative to the other covered sectors.

When looking at the policy areas behind the water, measures related to foreign entry are prevalent, except in sectors where Mode 4 trade in services plays a more important role, such as in the case of professional services. Restrictions to the movement of people explain more than half of the water in these sectors. The results reflect the scoring and weighting of measures in the STRI with most of the market access and national treatment measures concentrated in the restrictions to foreign entry and the restrictions to the movement of people. Very little water or none is derived from the other policy areas.

It is beyond the scope of this report to fully analyse the policy implications of this water in the GATS. However, it should be noted though that the STRI indices can provide an indication of the actual services trade restrictiveness. The level of water can be an indicator of openness, but mainly informs about the degree of legal uncertainty that services operators may have to face in foreign

markets. It reflects the choices of countries in their trade negotiations and the kind of commitments they are ready to undertake at the international level as compared to their applied regime.

The main conclusion of the analysis is that, generally speaking, current services trade policies are much more open than what countries have committed in the GATS. It was known before, but the actual level of water is maybe higher than what could have been expected. Another interesting finding is that most of the water in the GATS comes from sectors that are “unbound”. Again, it was widely recognised that the absence of commitments in GATS could not be interpreted as sectors that are closed with no trade allowed. But the analysis highlights that these sectors are nonetheless, as a matter of fact, often fairly open.

Water in the GATS: Methodology and results

This document provides detailed information on the calculation of the “water” in the General Agreement on Trade in Services (GATS) using the OECD Services Trade Restrictiveness Index (STRI). The water in the GATS refers to the difference between the bound level of trade restrictiveness permitted by the GATS and the actual trade regime.

In order to systematically assess the extent to which applied services regulations are more liberal than what is committed under the GATS, one needs some information both on GATS schedules of commitments and actual services regulations. GATS commitments are easily accessible and can be downloaded from the World Trade Organization (WTO) website. It is far more difficult to access all the information on services regulations in OECD and key partner countries. This information is dispersed in thousands of laws and regulations.

Gathering this information and organising it in a harmonised database was precisely one of the objectives of the STRI project. As such, it offers a unique opportunity to assess the water in the GATS. Moreover, the STRI legal information has been converted into composite indices and the project provides a methodology to quantify trade restrictiveness, another key element in the assessment of the water in the GATS.

Due to the complexity of the task and the fact that one needs some kind of STRI to analyse the difference between GATS commitments and actual trade regimes for a wide range of sectors and countries, there are very few studies on the water in the GATS. Using the World Bank Services Trade Restrictions Database, Borchert et al. (2011) provide some estimates but their results are based on five-point scale scores rather than a detailed comparison of GATS commitments and applied policies.¹

The OECD STRI allows us to go one step further by comparing measure by measure the commitments in GATS and the actual laws and by applying the same methodology to derive fully comparable indexes. The analysis is provided for 15 sectors out of the 18 STRI sectors that were released in May 2014: computer services, construction, the four professional services (accounting, architecture, engineering and legal services), telecommunications, distribution, the three audio-visual services sectors (motion picture, broadcasting and sound recording), courier, maritime, rail and road transport services. The two financial services sectors, commercial banking and insurance, are not covered at this stage. Air transport is also not covered because of its partial carve-out in GATS.²

-
1. Both for applied policies and GATS commitments, the authors assess whether the sector is: open without restrictions (0), open with minor restrictions (25), open with some restrictions (50), virtually closed (75) or completely closed/unbound (100). Different scores between 0 and 100 for each sector and mode of supply are then aggregated into a single index on the basis of sector and modal weights.
 2. The GATS Annex on Air Transport excludes from the scope of the agreement measures affecting air traffic rights and services directly related to their exercise. Some air transport services are however covered, such as aircraft repair and maintenance services, the selling and marketing of air

Against this backdrop, the document first discusses the relationship between the STRI and the GATS and defines the concept of “water” applied to services (Section 1). It then explains the methodology followed to convert the information found in GATS schedules into indices comparable with STRI values (Section 2). Results are presented for each sector in Section 3, and Section 4 concludes.

1. What is the “water” in the GATS?

In the GATS, trade is liberalised through a series of market access and national treatment commitments specified in schedules that describe their terms, limitations and conditions. When a government undertakes such commitments, it cannot impose new measures on foreign services providers that would limit their market entry or their operations below the level specified. These commitments are legal bindings analogous to bound tariffs in the case of trade in goods. They guarantee to services providers from other countries that barriers to trade in services will not go beyond what is scheduled.

But countries can have in place a more liberal trade regime than the one described in their schedules of specific commitments. In the case of a tariff, the “water” is the difference between the bound level of the tariff and the applied tariff. For example, a country has bound its ad valorem tariff on automobiles to 40% but the applied rate at the border is 20%. The “water” in the GATS captures a similar concept, i.e. the difference between the bound level of restrictiveness in the GATS and the actual trade regime. Of course, in the case of services, the analysis can go beyond purely trade restrictions, such as tariffs, and can cover some regulations that can be in place to achieve specific policy objectives that also have a restrictive impact on trade. In that sense, any analogy with tariffs should not be interpreted overly literally.

The OECD STRI offers a quantitative measure of the actual level of trade restrictiveness in the 18 sectors covered by the project. By building similar indices for the GATS, we can estimate the “water” in GATS commitments, defined as the difference between these GATS indices and the actual STRI indices. To do so, however, we have to look at the measures in the STRI which are covered by GATS articles XVI (Market Access) and XVII (National Treatment). While countries can in principle take additional commitments regarding other types of restrictions (Article XVIII), there are very few examples of such commitments.³ Therefore, the analysis focuses on measures falling under Articles XVI and XVII, which are the ones for which specific commitments are undertaken. They are:

- Non-discriminatory measures of a quantitative nature (Art. XVI) placing a limitation on:
 - the number of services suppliers
 - the total value of services transactions or assets
 - the total number of service operations or the total quantity of service output
 - the total number of natural persons who may be employed in a particular service sector
 - the types of legal entity or joint venture through which a service may be supplied
 - the participation of foreign capital.

transport services, and computer reservation systems (CRS) services. Some of these services are part of the STRI for logistics services currently under development.

3. An example is the regulatory disciplines of the Reference Paper on Basic Telecommunications.

- Discriminatory measures (Art. XVII) i.e. measures that accord to foreign services and services suppliers a treatment less favourable than that accorded to domestic like services and services suppliers.

When the STRI project was first discussed, it was decided to create an index of trade restrictiveness that would cover measures going beyond market access and national treatment in the sense of the GATS. Many trade restrictive measures are part of the domestic regulation of countries, such as barriers to competition or barriers related to administrative requirements. There are also measures that could be regarded as restrictions on market access but are outside the scope of GATS Article XVI. An example is minimum capital requirements. Art. XVI covers non-discriminatory measures of a quantitative nature placing a *maximum* limitation on capital but not *minimum* requirements.⁴ As a consequence, the analysis of the water in the GATS can only be done for the measures that countries are expected to report in their schedules of specific commitments. There is no water for the measures that are not covered by GATS commitments.

Another feature of the GATS is that countries are free to make commitments or not in any sector or sub-sector. However, when they do not have market access or national treatment commitments in a specific sector or sub-sector, they still create “water”. This is even the highest level of water. Countries are not constrained by any legal binding and could in theory totally exclude foreign providers from the provision of a service. The fewer the sectors where countries have commitments, the higher the water in the GATS is.

Lastly, the water in the GATS can also come from differences in the coverage of GATS commitments and the definition of sectors in the STRI. In the case of GATS, countries have generally scheduled their commitments according to the Services Sectoral Classification List (MTN.GNS/W/120), generally referred to as W/120, which is a classification based on the UN Provisional Central Product Classification (CPC).⁵ The classification has 155 sub-sectors and most of the STRI sectors correspond to several of these sub-sectors. Within a sub-sector countries can also limit their commitments to a specific type of services. For example, within legal services, it is common to find commitments for certain types of legal services such as home country law or international law. We take into account these differences in the scope of commitments to measure the water in the GATS. A country can have a more liberal trade regime because actual regulations do not have the same restrictions in the scope of activities permitted under the same conditions as the ones described in GATS.

4. See WTO Guidelines for the Scheduling of Specific Commitments under the GATS (S/L/92).

5. In the case of the STRI project, sectors are generally defined according to the International Standard Industrial Classification (ISIC) Revision 4 or according to more recent versions of the CPC classification. However, all STRI sector papers have sections discussing the relationship between the scope of the STRI and the relevant GATS sub-sectors.

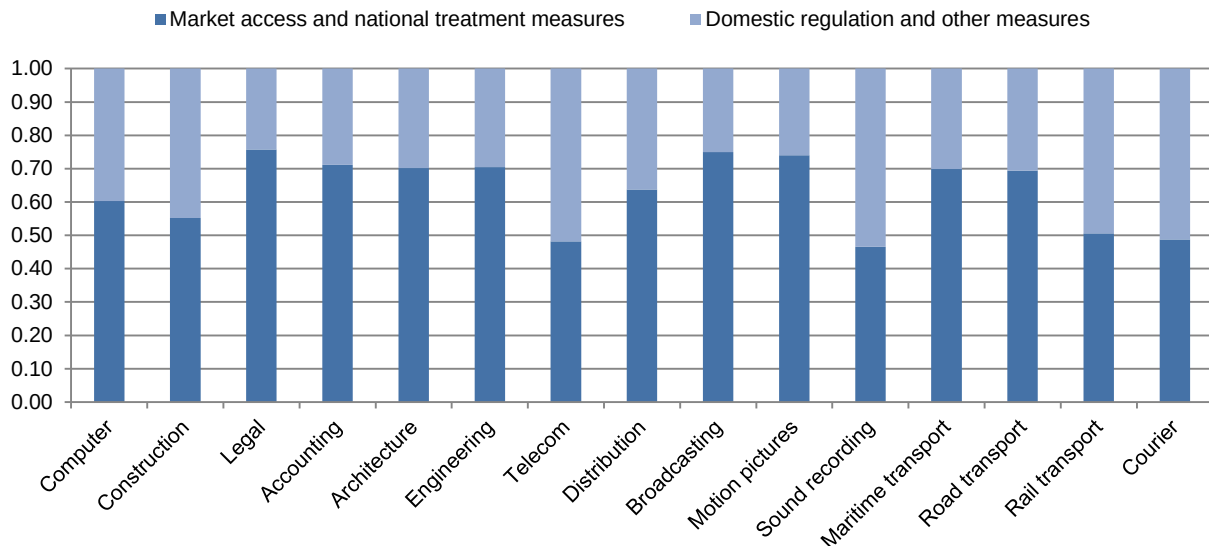
2. Methodology to estimate the “water” in the GATS

Restrictions on market access and national treatment versus domestic regulation

In each sector covered by the STRI, we have distinguished the restrictions to market access and national treatment as defined in the GATS from other types of restrictions that are part of domestic regulations or beyond the scope of the GATS. This distinction is not always straightforward and the choices made in the STRI project are not meant to represent a definitive legal interpretation.⁶ The WTO Secretariat was consulted during the process and when each sectoral paper was presented to the Trade Committee, a classification of measures was annexed, distinguishing between “MA/NT” (market access and national treatment) and “DR/other” (domestic regulation and other types of measures). The work presented in this document relies on the classification that can be found in each STRI sector paper (see Annex B for a summary of the measures that are of interest for the analysis of GATS commitments).

Figure 1 below illustrates the approach and provides the decomposition between the part of the index that is explained by trade restrictive measures falling under GATS articles XVI and XVII and other measures that would be regarded as “domestic regulation” in the context of the GATS or are even outside the scope of the trade agreement. Figure 1 shows the STRI for fully closed sectors (STRI=1) and indicates the share of trade restrictiveness which is explained by market access and national treatment restrictions and the share corresponding to domestic regulations or other types of measures (i.e. measures that are not belonging to domestic regulations as defined in the GATS).

Figure 1. Market access and national treatment measures versus domestic regulation and other measures



Source: STRI database.

6. In particular, distinguishing between market access and national treatment in GATS schedules is not an easy task and part of the “fog” in GATS commitments (see Adlung et al., 2011). This is why the STRI has grouped the two types of measures. But still there are open questions on some restrictions to decide whether they belong to domestic regulation or to market access and national treatment.

To build the indices presented on Figure 1, we rely on the methodology described in TAD/TC/WP(2011)30/FINAL as well as in a short note available on the STRI website.⁷ The basis for the scoring is the use of binary scores where a restrictive measure is scored 1 and a trade-facilitating measure (or the absence of a restriction) is scored 0. But in order to account for the complexity of services regulations, these numerical answers can be conditioned to other measures. There are hierarchies and bundles of measures and some numerical answers are subject to thresholds. Once each measure has received a score, it is then multiplied by a weight which depends on the policy area to which the measure belongs to. The STRI relies on expert weights selected after a wide consultation with experts from different countries. As each STRI measure is either part of “market access and national treatment” restrictions or “domestic regulation and other measures”, the total value of the STRI index can be decomposed into the two components presented on Figure 1.

On average about 60% of the value of STRI indices is explained by measures belonging to market access and national treatment. However, we observe differences across sectors. These differences come from the fact that the STRI puts a different weight on the five policy areas it covers (restrictions on foreign entry, restrictions to movement of people, other discriminatory measures, barriers to competition and regulatory transparency). Depending on the sector, there are more measures and higher weights given to the measures that are the most relevant for the provision of the service under consideration.

For example, in network industries such as telecoms, rail transport or courier services, access to the network puts the emphasis on barriers to competition which is a policy area where all measures belong to domestic regulation. In the case of sound recording, issues related to intellectual property rights explain why more than 50% of the value of the index comes from domestic regulation. These measures are either in the category of barriers to competition or regulatory transparency (which is the other policy area with only domestic regulation measures).

A higher share of market access and national treatment measures is found for professional services because most of the trade restrictive measures are barriers to the movement of people or restrictions on foreign entry. Broadcasting and motion pictures also have more restrictions on foreign entry relevant for market access but also more discriminatory measures towards foreign services providers that are departures from national treatment.

STRI indices based on GATS commitments

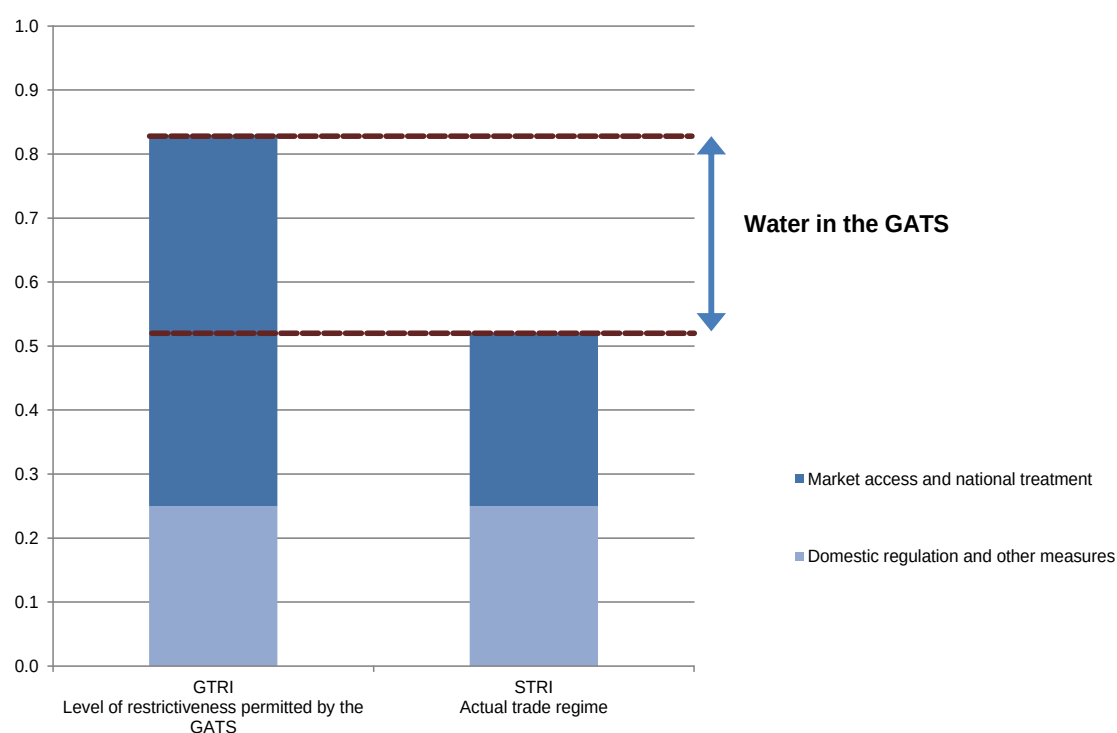
In order to assess the water in the GATS, we create for the 15 sectors and analyse a second set of STRI indices based on GATS commitments. For the measures belonging to domestic regulation, we do not change the information in the database (except when some of the hierarchies and conditions mentioned link these measures to market access and national treatment restrictions). But for restrictions on market access and national treatment, we change the answers to reflect the maximum restrictiveness permitted by GATS commitments. For example, let us assume that a country has no foreign equity restrictions for computer services but that its GATS schedule of specific commitments indicates that the maximum foreign equity allowed is 50%. In the STRI database, we change the percentage on “maximum foreign equity share” from 100% (i.e. no foreign equity restriction) to 50% and we recalculate the contribution of the measure to the overall index. On the basis of GATS, computer services will have a higher index as compared to the STRI for computer services. The difference between the actual STRI and what we can call the GATS Trade Restrictiveness Index (GTRI) provides a quantitative measure of the water in the GATS. Figure 2 illustrates the methodology.

7. www.oecd.org/tad/services-trade/STRI_scoring_methodology.pdf.

The scoring and weighting of the indices are the same for the STRI and for the GTRI. The distinction between domestic regulation and measures relevant for the GATS is applied once each measure has been scored and weighted, so that there is no difference in the treatment of the information when it comes to applying bundles or hierarchies. The part of the index corresponding to domestic regulation and other measures is the same in the two indices and does not matter for the calculation of the water in the GATS.⁸

It is important to keep in mind that the GATS index is about maximum trade restrictiveness on the basis of legal bindings found in the GATS. When filling the information for the GTRI, the question is to what extent countries can implement the most trade restrictive regime while still meeting their legal obligations in GATS. Using the same example as before, let us assume that a country has no commitments for computer services in GATS. Instead of 50% for “maximum foreign share”, the GATS index will be calculated assuming that no foreign equity at all is allowed (0% foreign equity share). Why? Because in the absence of GATS commitments, the country can introduce any type of foreign equity restriction and can even ban foreign investment. Not only foreign equity limits but all the market access and national treatment measures are scored as restrictive if the country has no commitments for this sector.

Figure 2. Calculation of the water in the GATS



8. As the STRI has market access and national treatment measures that can trigger additional restrictiveness in the domestic regulation part of the index, there are sometimes higher values for domestic regulation in the GTRI. But when subtracting the value of the STRI, this additional restrictiveness becomes part of the “water” and is thus correctly attributed to the GATS.

Issues in the interpretation of GATS commitments

GATS schedules of commitments generally conform to a standard format with commitments split into two parts. First, horizontal commitments indicate the limitations that apply to all sectors. Then comes a list of sector-specific commitments with most countries using the W/120 classification to list them. Both for horizontal and sector-specific commitments, there are entries for “market access” and “national treatment” in two separate columns and the commitments are detailed across rows for the four modes of supply defined in GATS. To assess the restrictiveness in GATS, we look both at the horizontal commitments and the sector-specific information. As the STRI covers the four modes of supply, we use all the commitments listed.

However, there are often entries for which the commitments are unclear or that are not exactly describing limitations to market access and national treatment (Adlung et al., 2011). Moreover, because GATS was signed in 1994 and regulations have changed in the two past decades, it is sometimes difficult to reconcile the language found in GATS with what the STRI describes in current laws and regulations. There is in addition an issue with the scope of the sector when countries have taken commitments for very specific types of services that represent only a subset of what the STRI covers.

The following principles have been applied in the analysis when confronted with difficult legal interpretations or provisions that were challenging to reconcile with STRI measures:

- 1) We have recorded a different answer for the GTRI and the STRI only when GATS commitments are clearly more restrictive than the actual trade regime. In case of any doubt about the legal interpretation, we have regarded the provisions in GATS as equivalent to what is found in the STRI database. This conservative approach implies that, if there is any bias, the water in the GATS is always underestimated in our results;
- 2) When we find what seems to be a more restrictive regime in actual regulations (STRI) as compared to the GATS, we do not create “negative water”. We ignore this kind of discrepancy.⁹ In theory, the actual trade regime should always be either equivalent to or less restrictive than what is described in the GATS;
- 3) When GATS commitments are clearly for a limited sub-set of services within a STRI sector, we report water for all the relevant measures. But when there is only a slight difference in the scope of measures in GATS and in the STRI, we assume that the scope is the same. For example, we have not reported water if there is an exception in commitments for a category of services that represent a very small market share in the sector. In this regard, we follow the same rules as in the STRI database;
- 4) In the case of “other restrictions”, which in the STRI is a measure found in each policy area to cover any type of restriction not listed otherwise, we assess on a case-by-case basis whether the restriction is part of market access and national treatment and we include this measure in the analysis of the water when this is the case.

9. We found several instances where this happened to be the case. But it is not the objective of this report to discuss such cases.

3. Results

This section provides an overview of the results in each STRI sector. It should be noted that the analysis is conducted on the basis of the STRI database released at the OECD Ministerial meeting in May 2014. The list of market access and national treatment measures is also the one that was available at this time. Because of the issues mentioned in the previous section, one should be aware that all the figures reported are estimates and that there is a margin for errors and interpretation. Some caution is recommended when comparing results, particularly across countries.

3.1 Average water by STRI sector and by country

It is first interesting to compare the average water across sectors. There are marked differences as can be seen on Figure 3. The water is measured as the average difference observed across countries between the maximum restrictiveness allowed in GATS (GTRI) and the STRI (using a simple average). STRI indices have values between zero and one and since the water comes from market access and national treatment restrictions, the maximum level of the water depends on the share of the index explained by these measures, as previously shown on Figure 2.¹⁰

The results are mainly driven by the fact that not all countries undertake commitments in GATS for a given STRI sector.¹¹ For example, many countries have no commitments for broadcasting, motion pictures and rail transport services. As a consequence, these sectors have the highest level of water. Table A.1 in Annex A indicates the number of countries with GATS commitments in each STRI sector and was used for the decomposition of the average water shown on Figure 3.

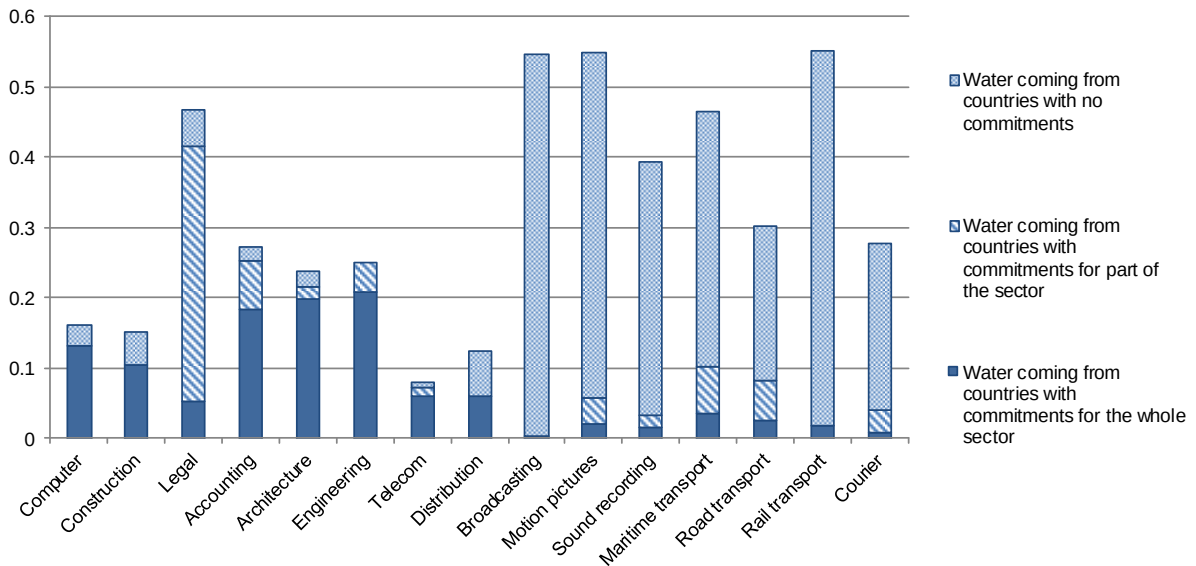
Another sector where the level of water is high is legal services. Most countries have commitments in this sector but generally for a limited set of services, such as legal advice on home country law or international law. When the actual trade regime has no such limitations, there is a high level of water. In other professional services (accounting, architecture and engineering services), the water is not explained by the difference in the scope of commitments but really by the difference between the restrictions listed in the GATS and the applied trade regime as reflected in the STRI. Telecom is also a services industry where the water comes from genuine differences in scheduled and actual regulations. This is not surprising as regulations and laws on telecoms have significantly changed since the GATS was signed in 1994.

But the relatively low level of water for telecoms, as well as computer, construction and distribution services may come as a surprise when considering that these sectors are the ones for which the average STRI tends to be low, i.e. sectors that are on average less trade restrictive. Figure 4 illustrates this positive relationship which could be counter-intuitive since a low STRI means that more water can potentially be created.¹² It could be explained by the political economy of GATS

-
10. Keeping in mind that because of hierarchies and linked measures in the scoring of the STRI, some market access and national treatment restrictions can create restrictiveness in the domestic regulation part of the index.
 11. In this section we refer to sectors as defined in the STRI. In particular, rail transport is rail freight and road transport is road freight.
 12. There is very significant positive correlation between the STRI and the water variable when pooling all countries and sectors (p-value = 0.0000). The results by sector show a significant positive correlation in all sectors (with p-values below 0.001) except for courier services and rail freight (where it is below 0.05). The correlation is generally moderate (coefficients between 0.40 and 0.60). It is weak only for courier services and rail freight. A regression with the log of the water as dependent variable, the log of the STRI as independent variable and country and sector fixed

commitments and the fact that countries have commitments in sectors where they had already an open trade regime or where reforms promoting trade are less sensitive or less opposed by producers (Roy, 2010).

Figure 3. Average water by STRI sector



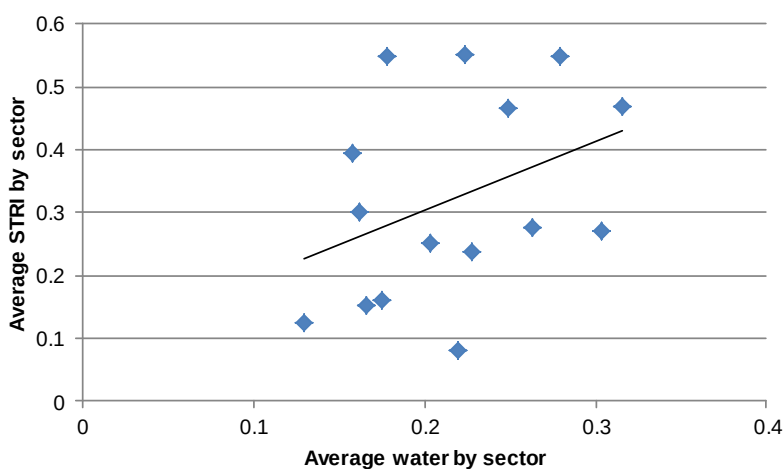
Note: The average is based on the 40 countries covered in the STRI. But as landlocked countries are excluded from maritime transport and Iceland has no rail freight, the total number of countries is respectively 34 and 39 for maritime transport and rail transport.

Source: STRI database.

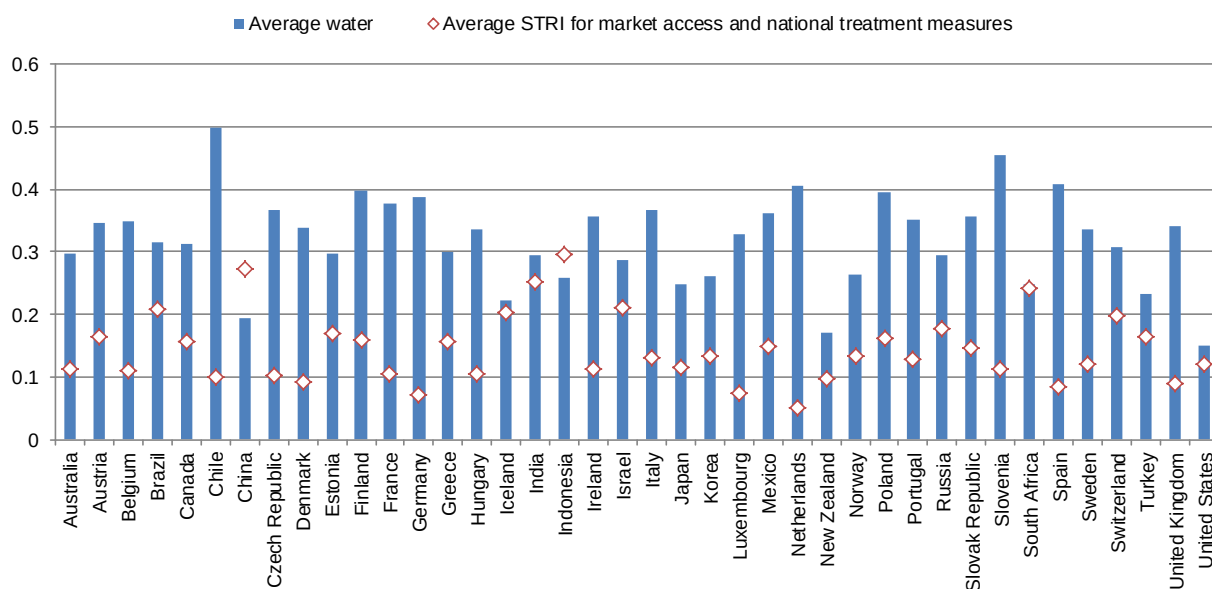
To compare the water across countries, we calculate in Figure 5 the average level of water observed in the 15 sectors.¹³ Figure 5 also reports the average values of STRI indices for the measures just related to market access and national treatment in order to give the most appropriate comparison. STRI indices have values between 0 and 1 but since we look only at market access and national treatment measures, the values are between 0 and the maximum average value of the index for such measures, which is 0.63.

effects (and robust standard errors) highlights a strong positive and significant correlation between the level of the water in each sector and the level of STRI indexes. It means that when controlling for some unobserved variables, the relationship is stronger than what is revealed by the simple correlation coefficients.

13. We use a simple average. All the STRI sectors are not of equal economic importance, but we do not have enough data to calculate a trade or value-added weighted average. Moreover, there are only 14 sectors in the case of Austria, the Czech Republic, Hungary, Iceland, Luxembourg, the Slovak Republic and Switzerland. As the objective of Figure 5 is to give an overview of the results and not to compare countries in a precise way, we kept in the same chart the countries with 14 sectors and 15 sectors. STRI indicators are constructed to be comparable across sectors and since the water is the difference between two values of the index in the same sector, its level is even more comparable across sectors.

Figure 4. Average water in the GATS and average level of trade restrictiveness, by sector

Source: STRI database.

Figure 5. Average water by country and average MA/NT STRI (15 sectors)

Note: For Austria, the Czech Republic, Hungary, Luxembourg, the Slovak Republic and Switzerland, only 14 sectors are included because landlocked countries have no STRI for maritime transport. The same applies to Iceland which has no rail freight transport.

Source: STRI database.

Differences across countries are explained both by the number of STRI sectors that are unbound and by the starting values in the calculation, which are the actual STRIs. Chile is the country with the highest average level of water because on one hand, the country has fewer commitments in GATS (10 of its STRI sectors are unbound) and on the other hand, its applied trade regime is rather liberal across all sectors (low average STRI). India also has 10 STRI sectors with no commitments but the applied regime is generally more restrictive and therefore the quantity of water is smaller.

For countries with extensive GATS commitments and very few sectors unbound, the water then depends on how close their commitments are to the actual trade regime. The country with the lowest quantity of water is the United States, which is also the country with the most extensive GATS commitments in the sample (only one sector fully unbound). It suggests commitments that are very close to the current regulations. Detailed results for the 15 sectors are available in the next section.

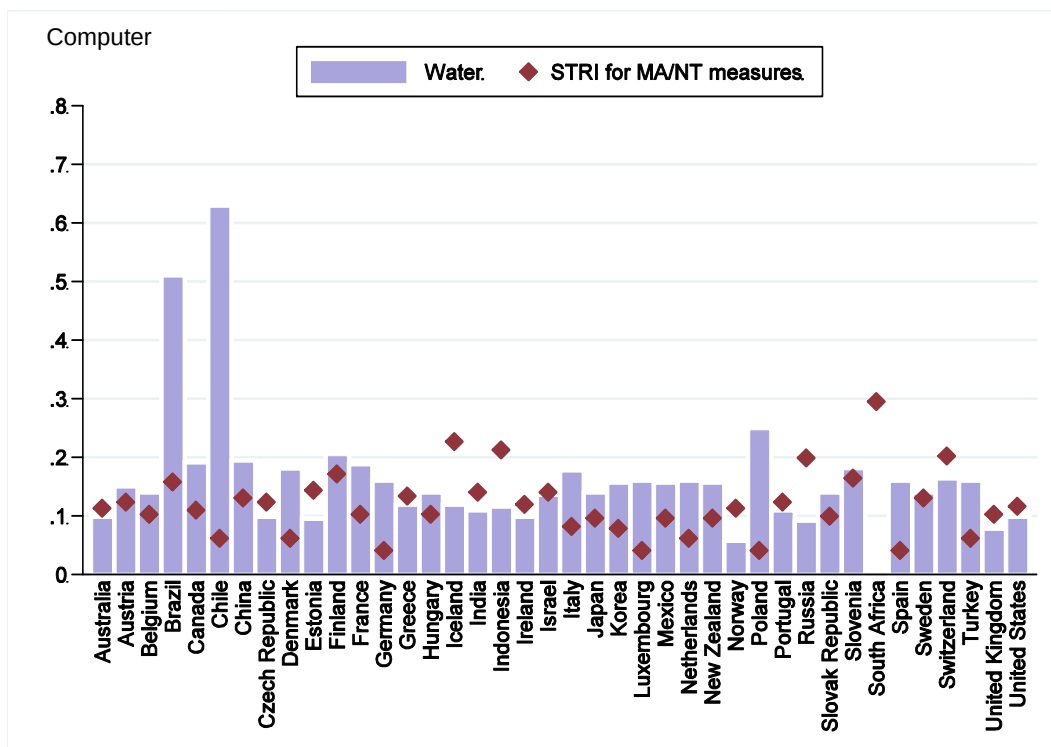
3.2 Detailed results across sectors and countries

To present the results across sectors and countries, we have grouped some of the sectors and highlighted their main characteristics. Each chart in this section reports both the level of the water and the average values of STRI indices for the measures just related to market access and national treatment.

a) Computer and related services

Very few countries maintain barriers to entry in the computer and related services industry. There are generally low values for the STRI and levels of water are also low (Figure 6), with the exception of Brazil and Chile. The two countries have no GATS commitments for computer services but their applied policies are in line with other countries at a low level of trade restrictiveness. South Africa is the country with the highest STRI index for market access and national treatment measures and has no water in its commitments. It means that no measure found in the STRI database is less restrictive than what is allowed in the GATS schedule of the country.

Figure 6. Water in GATS commitments for computer services



Source: STRI database.

b) Construction, architecture and engineering services

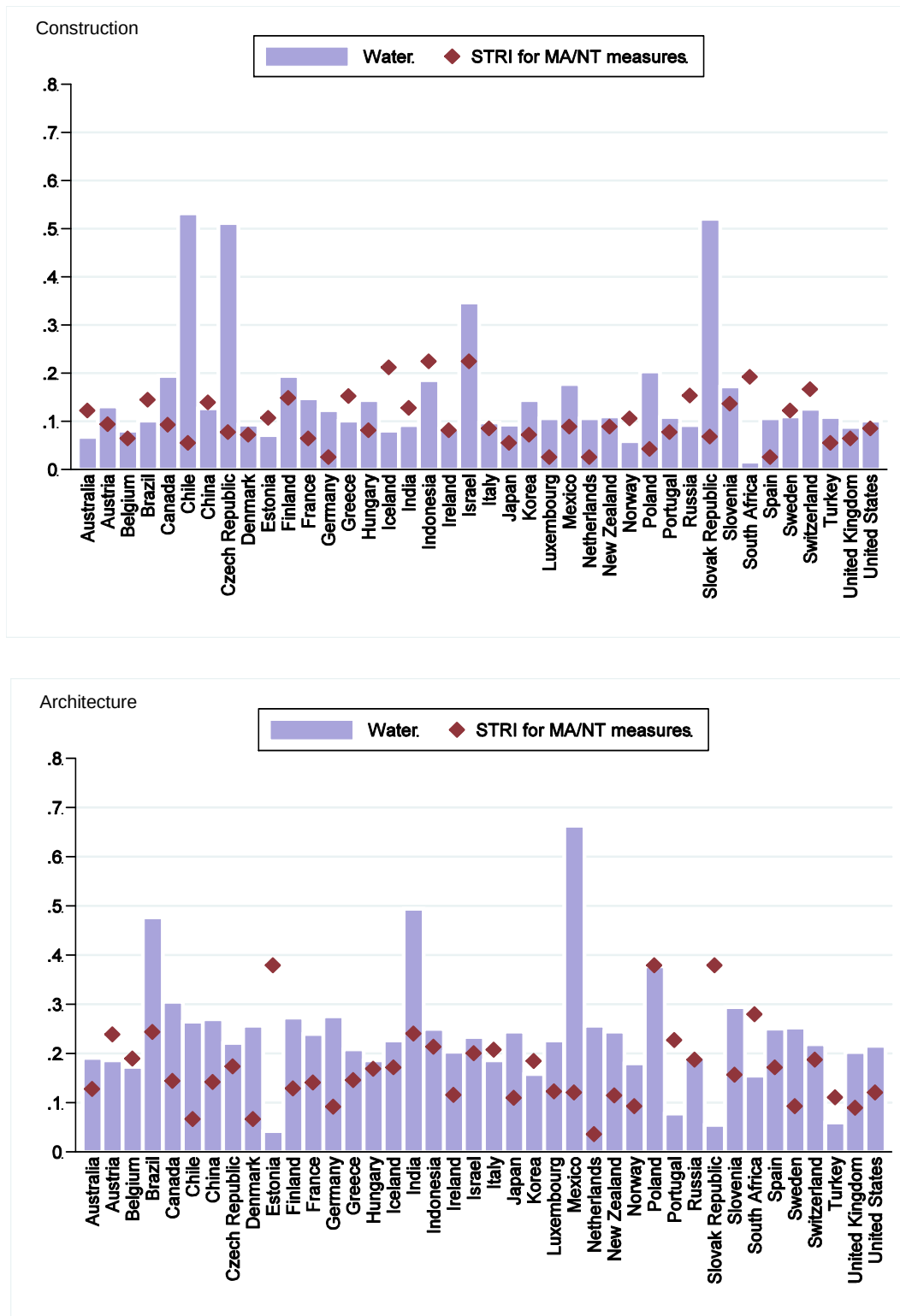
The overall level of restrictiveness is rather low for construction services and tends to be a bit higher for architecture and engineering services. The same is observed with the water in GATS commitments (Figure 7).

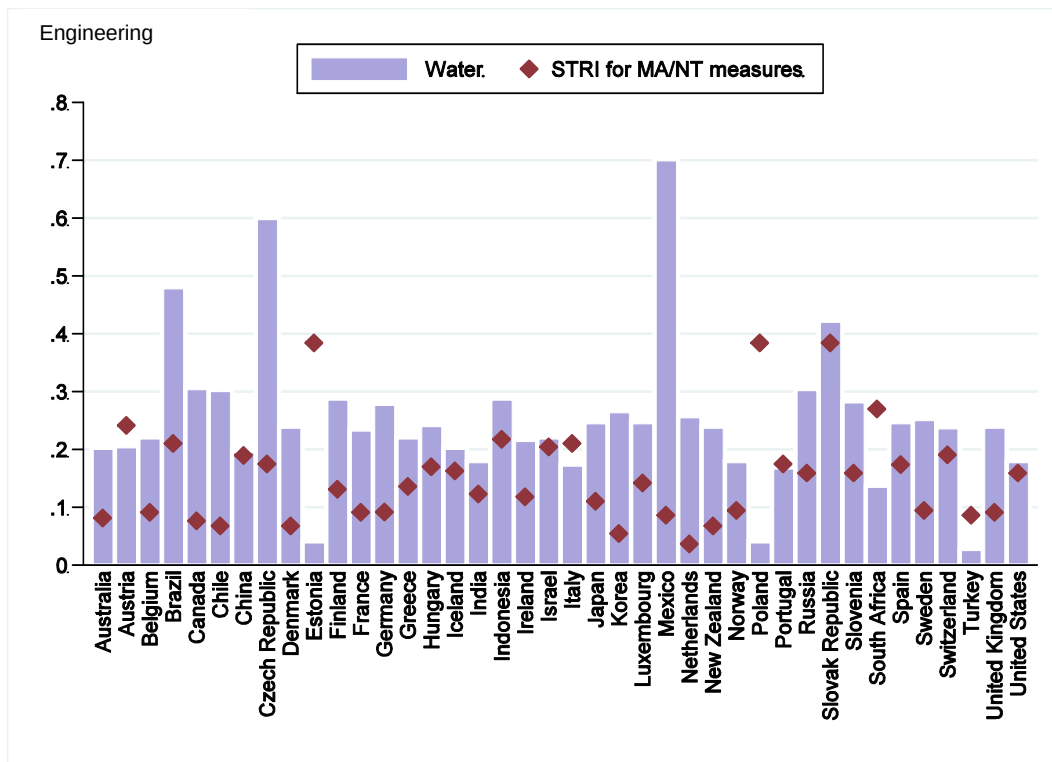
For construction services, most countries have full commitments and the high water values correspond to countries that are unbound, such as Chile, the Czech Republic, Israel and the Slovak Republic. Other countries tend to have an applied regime not departing too much from the bound level of restrictiveness they have committed to in the GATS, which is rather low and even more so when focusing on market access and national treatment measures. Some trade restrictiveness in the STRI for construction services is derived from measures that are outside the scope of the GATS, such as the measures related to public procurement.

The profile is different for architecture and engineering services that are two professional services with generally licensing requirements. Barriers to the movement of people play a more important role in these sectors and there is water explained by differences in bound and applied policies. For architecture services, only India and Poland have no commitments in GATS, the water in other countries is not explained by the absence of commitments (with the exception of Mexico where the scope of commitments is limited to consultancy and technical studies).

For engineering services, Estonia and Poland are two EU countries with a relatively high STRI and almost no water, indicating that the applied regime is close to their GATS commitments. The Czech Republic, Mexico and the Slovak Republic have a relatively high level of water because they have commitments only for a limited part of the sector and an applied regime which is more liberal, especially for Mexico.

Figure 7. Water in GATS commitments for construction, architecture and engineering services





Source: STRI database.

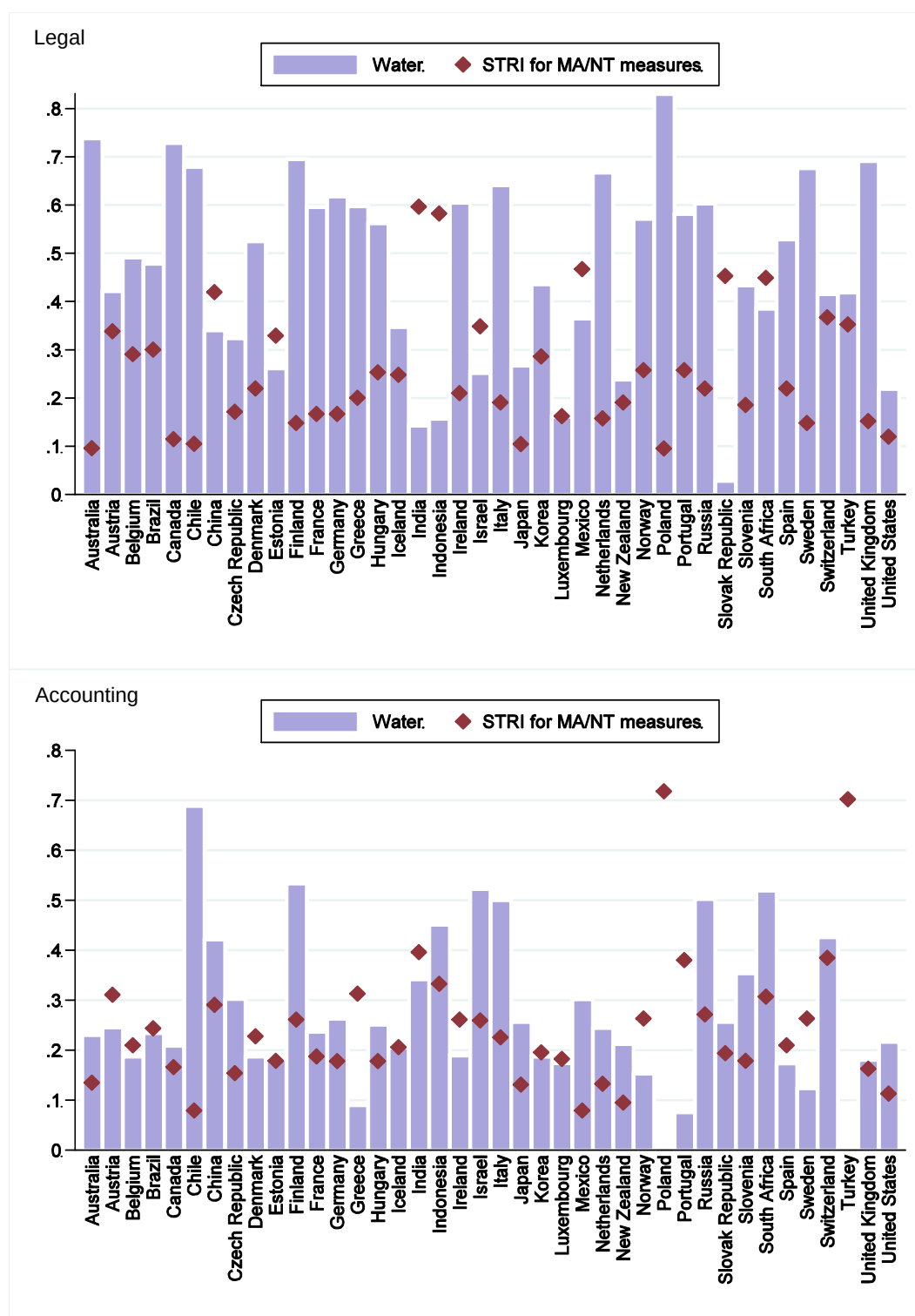
c) Legal and accounting services

As previously highlighted, GATS commitments for legal services are often limited to legal advice on home country law or international law. 28 countries out of the 40 included in our sample have commitments for part of the sector and have therefore a significant amount of water for legal services because the same restriction is not found in the regulatory regime they apply to foreign lawyers. Only 5 countries (Brazil, India, Indonesia, Korea and Mexico) are unbound for any type of legal service. In the case of Mexico, it creates a very high level of water because there are very few barriers to the provision of legal services by foreign lawyers in Mexico. But for India, on the contrary, there is a very low level of water because the applied regime is also restrictive.

With respect to accounting services, there is on average less water as compared to legal services because fewer countries have no commitments or commitments for a limited number of activities within the sector. Poland and Turkey have a STRI equal to 1 (no provision allowed for foreign suppliers) and by definition their water is zero.¹⁴

14. As the STRI index is calculated for market access and national treatment measures on Figure 6, the maximum value is not 1 but around 0.71. It can be slightly different from one country to another because the STRI includes a measure for “other restrictions” that can belong or not to market access and national treatment measures.

Figure 8. Water in GATS commitments for legal and accounting services



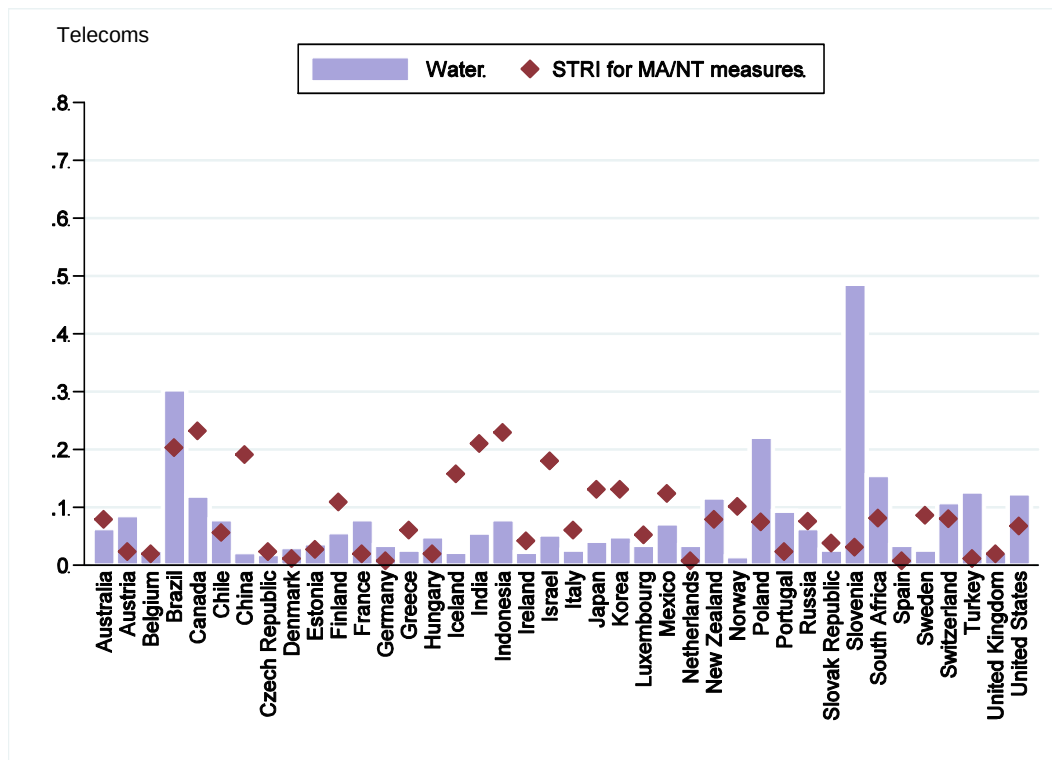
Source: STRI database.

d) Telecommunication services

Telecommunications is an interesting sector with almost no water when leaving aside the case of Brazil (unbound) and Slovenia (commitments for a sub-set of services only). This can be explained by the negotiations that took place during the Uruguay round and after the signature of the GATS with the agreement on basic telecommunications services. Acknowledging the importance and the specificities of the sector, countries have made commitments to facilitate trade and at the same time they have reformed their telecommunication sectors to promote competition and lower prices. Even if further reforms were conducted, the level of commitments is close to the actual trade restrictiveness for most countries (Figure 9). And when this is not the case, the water is often created through subsequent reforms.

As it was observed in the case of telecoms, there is almost no water in distribution services when countries have full commitments (Figure 10). Chile, Israel and Turkey have high levels of water because their regulations are in line with other OECD countries but they have no commitments in their GATS schedule for distribution services. India and Indonesia are also unbound but maintain a more restrictive regime. Interestingly, China has a similar STRI index but almost no water because unlike India and Indonesia, it has commitments for the full sector (with limitations corresponding to existing regulations).

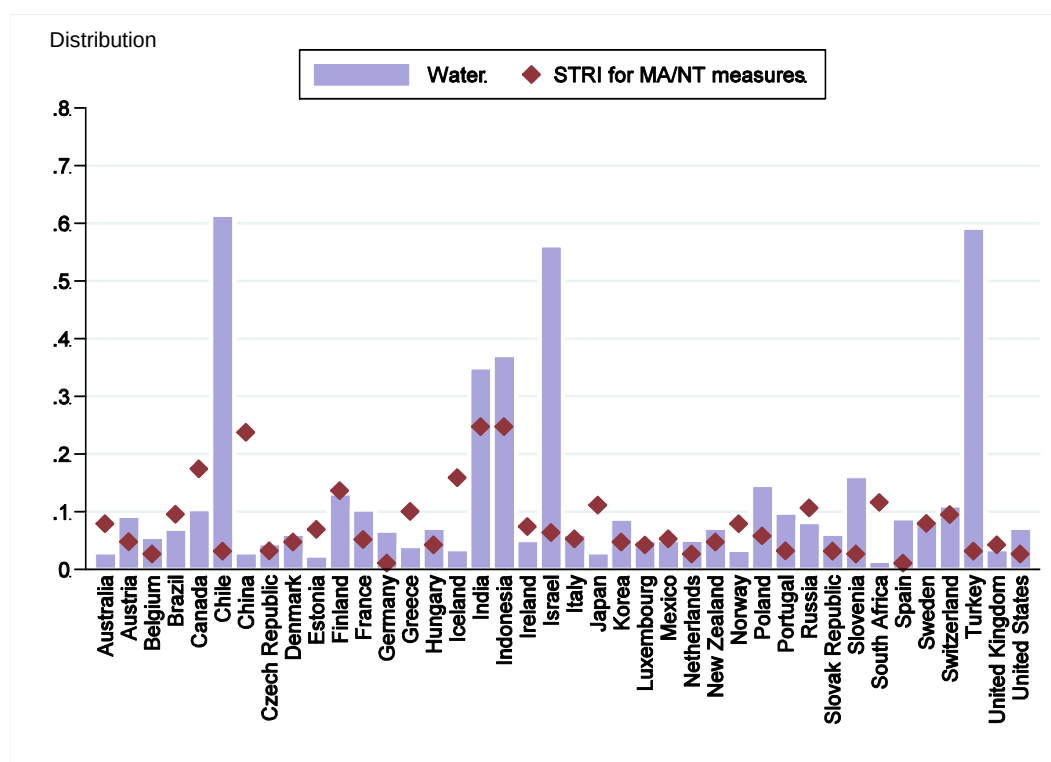
Figure 9. Water in GATS commitments for telecommunication services



Source: STRI database

e) Distribution services

Figure 10. Water in GATS commitments for distribution services



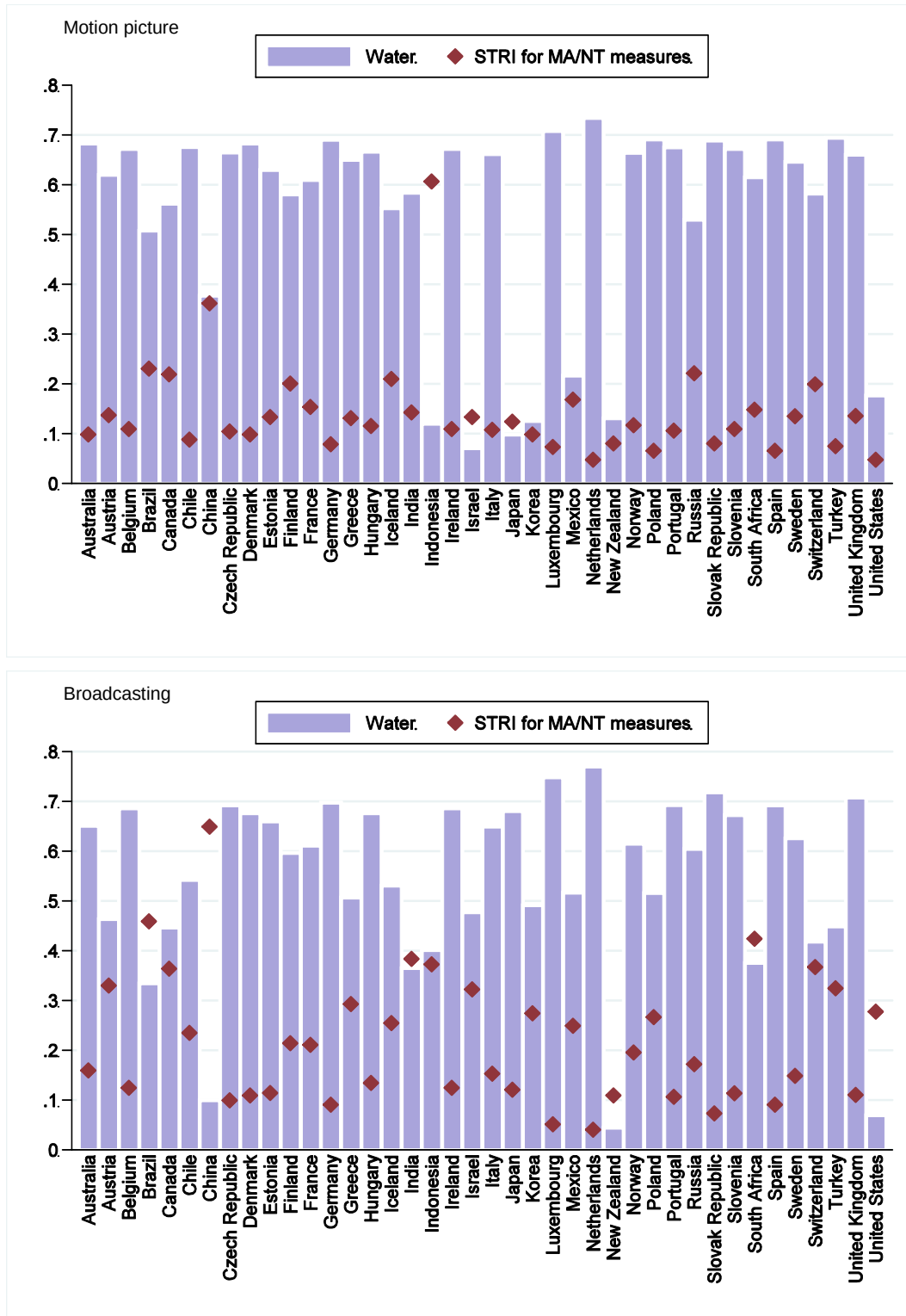
Source: STRI database.

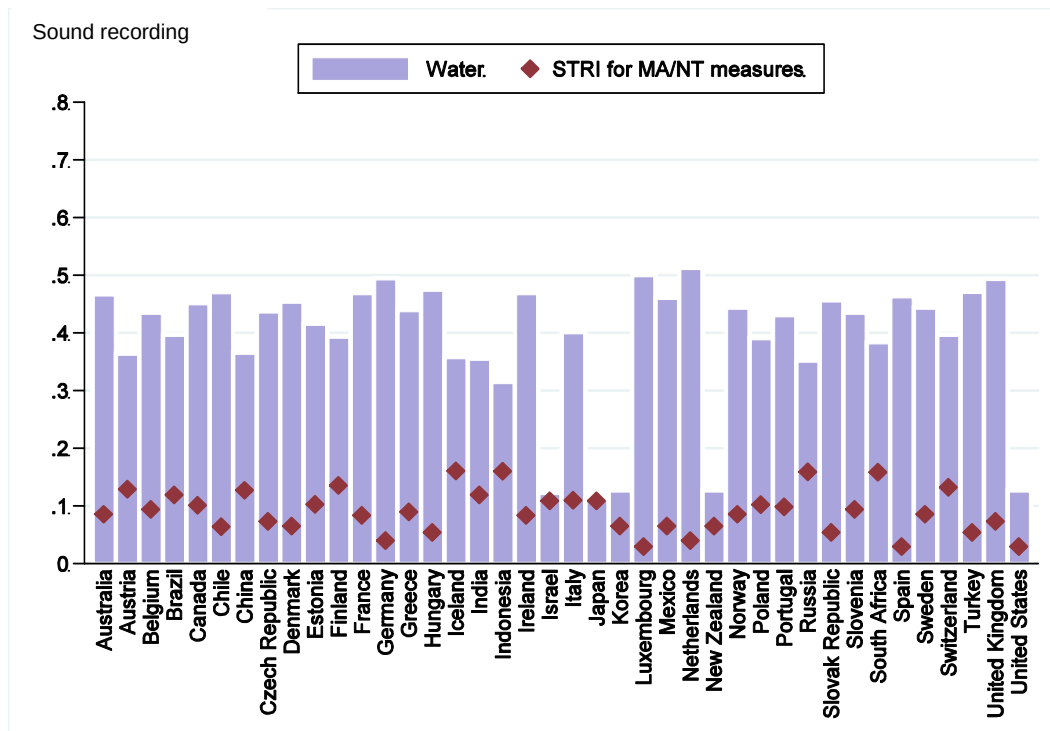
f) Audio-visual services

Audio-visual services are characterised by high levels of water in most countries because a limited number of WTO Members have commitments in the GATS. In our sample, six countries have full commitments for motion picture and only two for broadcasting services. This is explained by the fact that audio-visual services are carriers of cultural expression and generally subject to a number of policy measures that aim at fostering cultural diversity. Not all of these measures affect trade and there is a variation across countries in the applied regime which is reflected in different levels of water (Figure 11).

For motion picture services, only Indonesia has a very restrictive trade regime and no commitments. China also has a high STRI index (although significantly lower than Indonesia) but has partial commitments for the sector. The water is the highest for a country like the Netherlands, where the STRI is one of the lowest but no commitments were made in the GATS.

Figure 11. Water in GATS commitments for audio-visual services





Source: STRI database.

In the case of broadcasting services, New Zealand and the United States stand apart as these two countries are the only ones with commitments in this sector. But a low level of water is also observed in China for the opposite reason: no GATS commitments and a very restrictive applied regime. For sound recording, the water is on average lower in GATS commitments but not because more countries have commitments. The difference is that most of the restrictions in this sector are related to intellectual property rights and are categorised as domestic regulation rather than market access or national treatment.

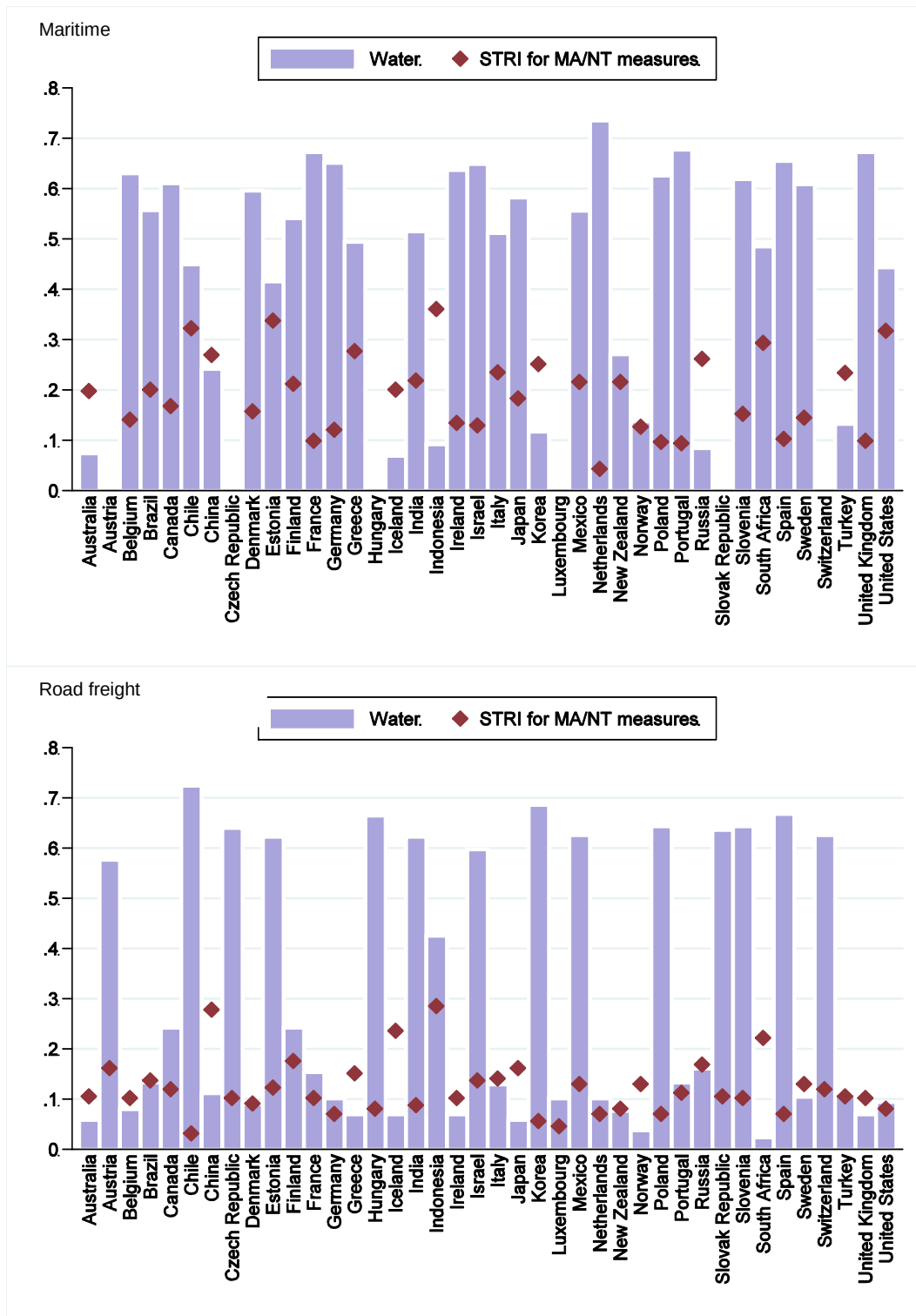
g) Transport and courier services

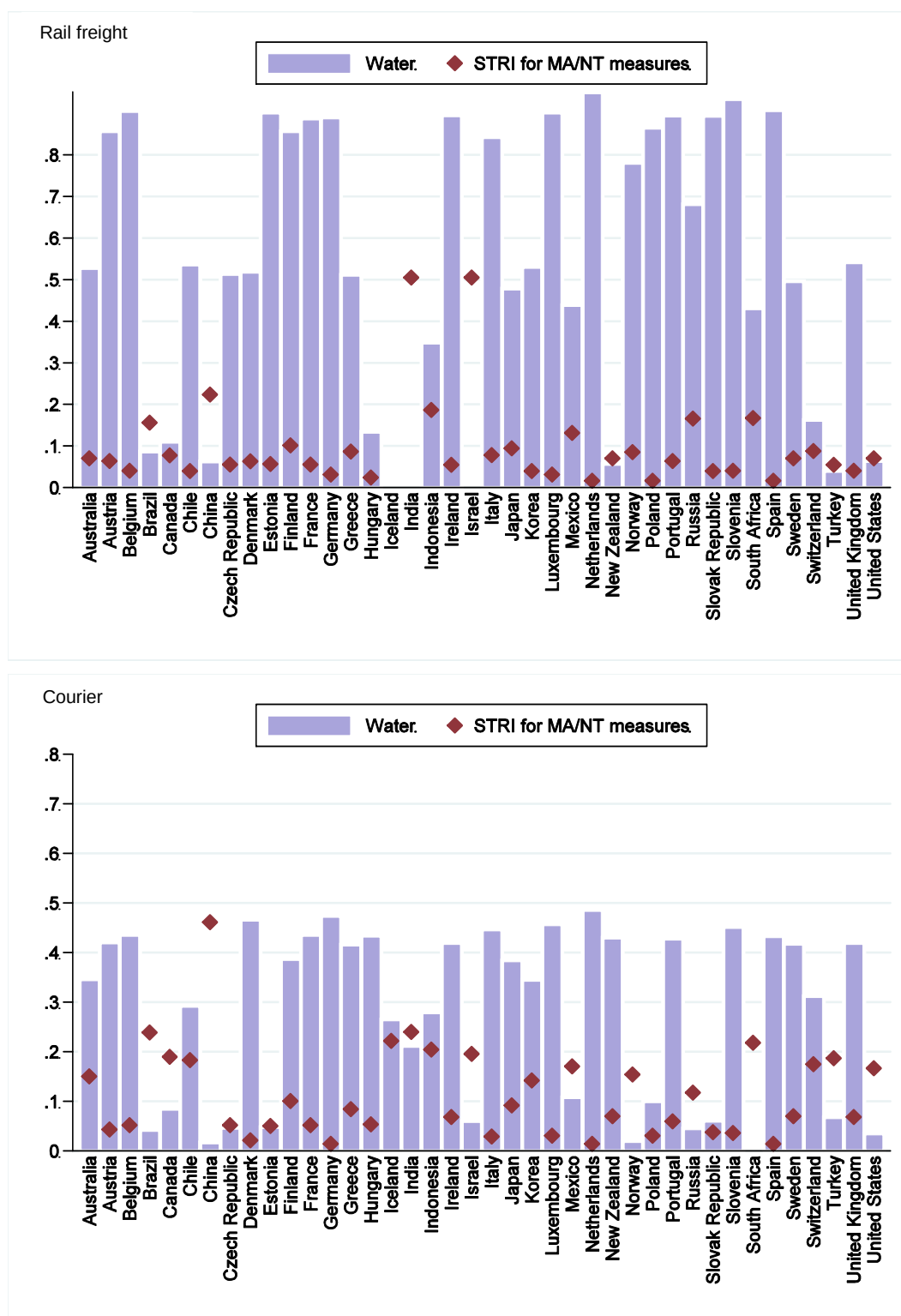
Finally, the three transport services covered in the report (maritime, road freight and rail freight) and courier services exhibit more contrasted results in terms of water in commitments (Figure 12). A common characteristic is that few countries in the sample have full GATS commitments for these activities and STRI indexes are generally higher as compared to other sectors.

Maritime transport is on average the most restrictive transport sector and a fair amount of water appears in countries with no GATS commitments. The highest value for the water is observed in the Netherlands where the applied regime is very liberal (i.e. low STRI index value). But even countries with more restrictions and no commitments, such as Chile or the United States, can have a significant level of water because the difference with the maximum level of restrictiveness permitted by the GATS is still important.

In the case of road freight, there are fewer countries with no GATS commitments (14 as opposed to 21 for maritime transport) and the water is on average lower. It should be kept in mind that the STRI in this sector only captures commercial presence at this stage and therefore STRI indexes tend to be low.

Figure 12. Water in GATS commitments for transport and courier services





Source: STRI database.

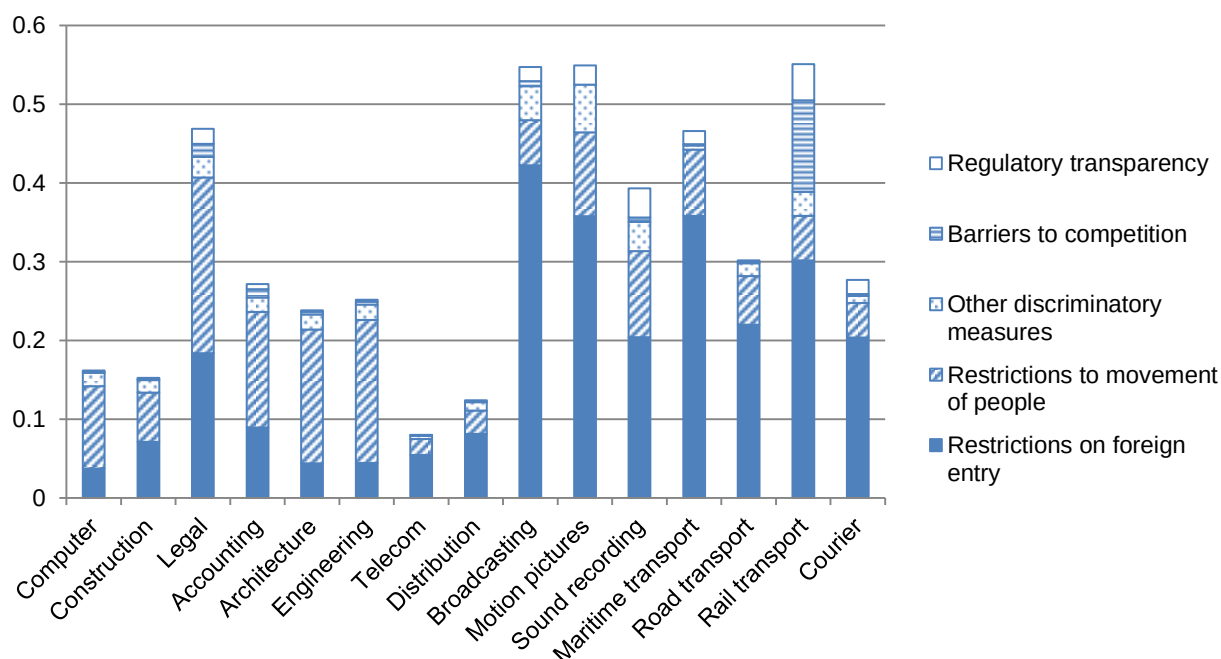
In the case of rail freight services, the water is often at its maximum level because this is the transport sector with the lowest number of countries with GATS commitments. 31 countries in our sample are unbound for this activity. Combined with a liberal applied regime, this absence of commitments leads to high levels of water. Notable exceptions are India and Israel that have a STRI equal to one because there is a statutory monopoly for rail freight and no foreign suppliers are allowed in the market. The water is zero in this case.

For courier services, as defined in the STRI project, the commitments are generally in line with the applied regime but are not incorporating the latest reforms. There is therefore some water created, especially in countries with low STRI indexes. But as compared to transport sectors, the water is on average much lower, with the exception of countries with no commitments and a liberal regime such as Chile.

3.3 Water by policy area and main measures creating water

Lastly, we can look at the type of measures involved in the water in the GATS, using the five policy areas identified in the STRI. Figure 13 shows that in most sectors the water comes from restrictions on foreign entry, with the exception of professional services and computer services where restrictions to the movement of people are prevalent. To some extent, the STRI scoring and weighting system explains this result because restrictions on foreign entry generally have a higher weight. In addition, some restrictions on foreign entry are linked to measures in other policy areas and trigger additional restrictiveness as a consequence of the hierarchies included in the STRI methodology. Moreover, most of the measures identified as market access (as defined in the GATS) belong to the first policy area.

Figure 13. Average water by policy area



Source: STRI database.

But in some sectors where Mode 4 is more important, such as the professional services, restrictions to market access are found in the second policy area, the “restrictions to movement of people”. More weight is given to these measures in such sectors and more water is created there. The weighting system can explain to some extent why but it should also be recalled that for accounting, architecture and engineering services, the water was not coming exclusively from unbound sectors or from a narrower scope in the commitments (see Figure 3). Mode 4 measures, such as quotas, labour market tests and durations of stay for professionals, as well as licensing requirements and measures related to the recognition of qualifications are the ones where a substantive difference sometimes exists between actual regulations and GATS commitments.

Moreover, another indication that the weighting system is not fully driving the results seen on Figure 13 is that there is not much water derived from “other discriminatory measures” which is a policy area with an important weight in sectors such as construction or audio-visual services (discriminatory subsidies or local content requirements). Based on Figure 13, it seems that market access more than national treatment is responsible for the water in the GATS in these sectors. However, most of the national treatment restrictions in the STRI are not in this policy area (which is precisely called “other” discriminatory measures because some discriminatory measures are accounted for in restrictions on foreign entry and restrictions to movement of people). Annex B points out that very few measures used in the GATS index belong to this category.

Barriers to competition are typical domestic regulation measures and not market access or national treatment restrictions. Therefore it is normal to not see this policy area as creating water. One can however notice on Figure 13 that some water is “indirectly” created in this policy area because, especially in the rail transport sector, some restrictions on foreign entry are linked to barriers to competition. The same is true for measures related to regulatory transparency. There is no market access or national treatment restrictions in this policy area but foreign equity restrictions create restrictiveness in this category as well. In both cases, the way this water can be removed is through GATS commitments on foreign entry closer to the actual trade regime. This water is not the consequence of domestic regulations.

4. Concluding remarks

This report has highlighted that the OECD STRI can be a useful tool to understand the discrepancy between the specific commitments of countries in GATS and the actual trade regime faced by foreign services providers. By creating an index of the maximum trade restrictiveness allowed in GATS, we can see how far countries are from their “bound level” of restrictiveness.

However, it should be noted that the level of water is not a performance indicator. It can be an indicator of openness, but mainly informs about the level of legal uncertainty that services operators may have to face in foreign markets. It reflects the choices of countries in their trade negotiations and the kind of commitments they are ready to undertake at the international level as compared to their applied regime, although the STRI indices can provide an indication of the actual services trade restrictiveness and can be used to benchmark reforms.

It is beyond the scope of this report to fully analyse the policy implications of this water in the GATS. The main conclusion of the analysis is that current services trade policies are much more open than what countries have committed in the GATS. It was known before, but the level of water is maybe higher than what could have been expected. And knowing where this water is can be key information in services reforms and trade negotiations. This report is the first to provide detailed evidence on the water in the GATS, even if some of the caveats in the analysis should be kept in mind.

Another interesting finding is that most of the water in the GATS comes from sectors that are “unbound”. Again, it was widely recognised that the absence of commitments in GATS could not be interpreted as sectors that are closed with no trade allowed. But the analysis highlights that these sectors are nonetheless, as a matter of fact, often fairly open. It is true that they are relatively less open than the sectors where commitments are undertaken. But the level of water is high, indicating that the trade regime is not radically different in these unbound sectors.

References

- Adlung, R., P. Morrison, M. Roy and W. Zhang (2011), “Fog in GATS commitments – Boon or bane?”, *WTO Staff Working Paper ERSD-2011-04*, World Trade Organization.
- Adlung, R. and M. Roy (2005), “Turning Hills into Mountains? Current Commitments under the General Agreement on Trade in Services and Prospects for Change”, *Journal of World Trade*, Vol. 39, Issue 6, pp. 1161-94.
- Borchert, I., B. Gootiiz and A. Mattoo (2011), “Services in Doha: What’s on the Table?”. In: W. Martin and A. Mattoo (eds), *Unfinished Business? The WTO’s Doha Agenda*, The World Bank, Washington, DC, pp. 115-143.
- Delimatsis, P. (2008), *International Trade in Services and Domestic Regulations*. Oxford: Oxford University Press.
- Miroudot, S., J. Sauvage and M. Sudreau (2010), “Multilateralising Regionalism: How Preferential Are Services Commitments in Regional Trade Agreements?”, *OECD Trade Policy Papers* No. 106, OECD Publishing, Paris.
- Roy, M. (2011), “Democracy and the Political Economy of Multilateral Commitments on Trade in Services”, *Journal of World Trade*, Vol. 45, Issue 6, pp. 1157-1180.
- World Trade Organization, “Guidelines for the Scheduling of Specific Commitments under the GATS”, adopted by the Council for Trade in Services on 23 March 2001, S/L/92.

Annex A.

GATS commitments in STRI sectors

Table A.1. Number of countries with specific commitments, by STRI sector

Sectors (as defined in the STRI)	Number of STRI countries with			
	Sector-specific commitments for the whole sector	Sector-specific commitments for part of the sector	No commitments undertaken	Total
Computer	38	0	2	40
Construction	36	0	4	40
Legal	6	29	5	40
Accounting	33	5	2	40
Architecture	37	1	2	40
Engineering	37	3	0	40
Telecom	38	1	1	40
Distribution	35	0	5	40
Broadcasting	2	0	38	40
Motion pictures	6	3	31	40
Sound recording	5	2	33	40
Maritime transport	9	4	21	34
Road transport	12	14	14	40
Rail transport	8	0	31	39
Courier	7	9	24	40

Note: The STRI for maritime transport covers 34 of the countries as landlocked economies are not included. There is also one country in the sample with no rail freight transport.

Source: WTO Members' GATS schedules of commitments.

Table A.2. Number of STRI sectors with specific commitments, by country

Countries	Number of STRI sectors			
	Sector-specific commitments for the whole sector	Sector-specific commitments for part of the sector	No commitments undertaken	Total
Australia	9	1	5	15
Austria	7	2	5	14
Belgium	7	2	6	15
Brazil	7	1	7	15
Canada	8	3	4	15
Chile	3	2	10	15
China	10	4	1	15
Czech Republic	7	1	6	14
Denmark	7	2	6	15
Estonia	8	2	5	15
Finland	6	4	5	15
France	7	3	5	15
Germany	8	1	6	15
Greece	7	2	6	15
Hungary	8	1	5	14
Iceland	9	1	4	14
India	4	1	10	15
Indonesia	6	0	9	15
Ireland	7	2	6	15
Israel	7	2	6	15
Italy	7	2	6	15
Japan	11	0	4	15
Korea	10	1	4	15
Luxembourg	7	2	5	14
Mexico	7	2	6	15
Netherlands	7	2	6	15
New Zealand	13	1	1	15
Norway	10	1	4	15
Poland	7	1	7	15
Portugal	7	2	6	15
Russia	10	3	2	15
Slovak Republic	7	1	6	14
Slovenia	7	3	5	15
South Africa	8	2	5	15
Spain	7	1	7	15
Sweden	7	2	6	15
Switzerland	7	2	5	14
Turkey	9	2	4	15
United Kingdom	7	2	6	15
United States	12	2	1	15

Note: The table is based on 15 of the STRI sectors. For Austria, the Czech Republic, Hungary, Luxembourg, the Slovak Republic and Switzerland, only 14 sectors are included because landlocked countries have no STRI for maritime transport. The same applies to Iceland which has no rail freight transport

Source: WTO Members' GATS schedules of commitments.

Annex B.

Classification of STRI measures

Market access and national treatment measures in each STRI sector are listed below. The GATS index is based on this list of measures.

Computer services***Restrictions on foreign entry***

Maximum foreign equity share (%)

Maximum foreign ownership in local investment companies (%)

Statutory or legal limit on the shares that can be acquired by foreign investors in government controlled firms

Joint ventures required

Number of firms restricted by quotas

Board of directors: majority must be nationals

Board of directors: majority must be residents

Board of directors: at least one must be national

Board of directors: at least one must be resident

Manager must be national

Manager must be resident

Screening: foreign investors must show net economic benefits

Screening: approval unless contrary to national interest

Screening: notification

Restrictions on the type of shares or bonds held by foreign investors

Conditions on subsequent transfer of capital and investments

Restrictions to movement of people

Quotas: intra-corporate transferees

Quotas: contractual services suppliers

Quotas: independent services suppliers

Labour market tests: intra-corporate transferees

Labour market tests: contractual services suppliers

Labour market tests: independent services suppliers

Limitation on stay for intra-corporate transferees (months)

Limitation on stay for contractual services suppliers (months)

Limitation on stay for independent services suppliers (months)

Other discriminatory measures

Foreign suppliers treated less favourably regarding taxes and eligibility for subsidies

Construction***Restrictions on foreign entry***

Maximum foreign equity share (%)

Statutory or legal limit on the shares that can be acquired by foreign investors in government controlled firms

Foreign branches are prohibited

Joint ventures required

Number of firms restricted by quotas

Board of directors: majority must be nationals

Board of directors: majority must be residents
Board of directors: at least one must be national
Board of directors: at least one must be resident
Manager must be national
Manager must be resident
Screening: foreign investors must show net economic benefits
Screening: approval unless contrary to national interest
Screening: notification
Acquisition of land and real estate by foreigners is prohibited
Acquisition of land and real estate by foreigners is restricted
Conditions on subsequent transfer of capital and investments
Local content of personnel and/or goods
Discriminatory qualification requirements for building permits to undertake construction work
<i>Restrictions to movement of people</i>
Quotas: intra-corporate transferees
Quotas: contractual services suppliers
Quotas: independent services suppliers
Labour market tests: intra-corporate transferees
Labour market tests: contractual services suppliers
Labour market tests: independent services suppliers
Limitation on stay for intra-corporate transferees (months)
Limitation on stay for contractual services suppliers (months)
Limitation on stay for independent services suppliers (months)
<i>Other discriminatory measures</i>
Foreign suppliers treated less favourably regarding taxes and eligibility for subsidies

Legal services***Restrictions on foreign entry***

Maximum foreign equity share (%)
Equity restrictions apply to non-locally licensed professionals/firms
Legal form: sole proprietorship is prohibited
Corporation is prohibited
Partnership is prohibited
Commercial association is prohibited between not fully integrated practitioners and fully integrated professionals
Prohibitions on hiring locally-licensed lawyers
Number of firms restricted by quotas
Board of directors: majority must be nationals
Board of directors: majority must be residents
Board of directors: majority must be locally-licensed professionals
Board of directors: at least one must be national
Board of directors: at least one must be resident
Board of directors: at least one must be a locally-licensed professional
Manager must be national
Manager must be resident
Manager must be locally-licensed professional
Establishment of foreign firms restricted by economic needs tests
<i>Restrictions to movement of people</i>
Quotas: intra-corporate transferees
Quotas: contractual services suppliers

Quotas: independent services suppliers
Labour market tests: intra-corporate transferees
Labour market tests: contractual services suppliers
Labour market tests: independent services suppliers
Limitation on stay for intra-corporate transferees (months)
Limitation on stay for contractual services suppliers (months)
Limitation on stay for independent services suppliers (months)
Nationality or citizenship required for license to practice
Prior or permanent residency required for license to practice
Prior or permanent residency required for license to practice under a limited license
Domicile required for license to practice as a fully integrated lawyer
Domicile required for license to practice under a limited license
Foreign lawyers are required to take local examinations to qualify for full membership in law the profession
Foreign lawyers are required to practice locally for at least 1 year in order to become a member of the profession
Compulsory membership in a professional association for foreign lawyers is automatically granted if the lawyer has the required qualifications
A limited licensing system is available
Foreign providers have to completely re-do the university degree, practice and exam in the domestic country
<i>Other discriminatory measures</i>
Foreign suppliers treated less favourably regarding taxes and eligibility for subsidies
Use of foreign firm names is prohibited
Use of foreign firm names is allowed only alongside that of a local partner
Only locally-licensed lawyers may use the name/title "Lawyer"

Accounting services

Restrictions on foreign entry

Maximum foreign equity share (%)
Equity restrictions apply to non-locally licensed professionals/firms
Legal form: sole proprietorship is prohibited
Corporation is prohibited
Partnership is prohibited
Number of firms restricted by quotas
Establishment of foreign firms restricted by economic needs tests
Board of directors: majority must be nationals
Board of directors: majority must be residents
Board of directors: majority must be locally-licensed professionals
Board of directors: at least one must be national
Board of directors: at least one must be resident
Board of directors: at least one must be a locally-licensed professional
Manager must be national
Manager must be resident
Manager must be locally-licensed professional
Other restrictions on foreign entry

Restrictions to movement of people

Quotas: intra-corporate transferees
Quotas: contractual services suppliers
Quotas: independent services suppliers

Labour market tests: intra-corporate transferees
Labour market tests: contractual services suppliers
Labour market tests: independent services suppliers
Limitation on stay for intra-corporate transferees (months)
Limitation on stay for contractual services suppliers (months)
Limitation on stay for independent services suppliers (months)
Nationality or citizenship required for license to practice
Prior or permanent residency required for license to practice
Domicile required for license to practice
Foreign accountants and auditors are required to take local examinations to qualify for full membership in the profession
Foreign accountants and auditors are required to practice locally for at least 1 year in order to become a full member of the profession
Compulsory membership in a professional association for foreign accountants and auditors is automatically granted if the he/she has the required qualifications
Limited or temporary licensing system is available
Foreign providers have to completely re-do the university degree, practice and exam in the domestic country
<i>Other discriminatory measures</i>
Foreign suppliers treated less favourably regarding taxes and eligibility for subsidies
Use of foreign firm names is prohibited
Use of foreign firm names is allowed only alongside that of a local partner
Only locally-licensed accountants and auditors may use the name/title "Accountant" or "Auditor"

Architecture services***Restrictions on foreign entry***

Maximum foreign equity share (%)
Equity restrictions apply to non-locally licensed professionals/firms
Legal form: sole proprietorship is prohibited
Corporation is prohibited
Partnership is prohibited
Commercial association is prohibited between not fully integrated practitioners and fully integrated professionals
Number of firms restricted by quotas
Board of directors: majority must be nationals
Board of directors: majority must be residents
Board of directors: majority must be locally-licensed professionals
Board of directors: at least one must be national
Board of directors: at least one must be resident
Board of directors: at least one must be a locally-licensed professional
Manager must be national
Manager must be resident
Manager must be locally-licensed professional
Establishment of foreign firms restricted by economic needs tests
Acquisition of land and real estate by foreigners is prohibited
Acquisition of land and real estate by foreigners is restricted

Restrictions to movement of people

Quotas: intra-corporate transferees
Quotas: contractual services suppliers
Quotas: independent services suppliers

Labour market tests: intra-corporate transferees
Labour market tests: contractual services suppliers
Labour market tests: independent services suppliers
Limitation on stay for intra-corporate transferees (months)
Limitation on stay for contractual services suppliers (months)
Limitation on stay for independent services suppliers (months)
Nationality or citizenship required for license to practice
Prior or permanent residency required for license to practice
Domicile required for license to practice
Foreign architects are required to take local examinations to qualify for full membership in the profession
Foreign architects are required to practice locally for at least 1 year in order to become a full member of the profession
Compulsory membership in a professional association for foreign architects is automatically granted if they have the required qualifications
Limited or temporary licensing system is available
Foreign providers have to completely re-do the university degree, practice and exam in the domestic country
<i>Other discriminatory measures</i>
Foreign suppliers treated less favourably regarding taxes and eligibility for subsidies
Use of foreign firm names is prohibited
Use of foreign firm names is allowed only alongside that of a local partner
Only locally-licensed architects may use the name/title "Architect"

Engineering services***Restrictions on foreign entry***

Maximum foreign equity share (%)
Equity restrictions apply to non-locally licensed professionals/firms
Legal form: sole proprietorship is prohibited
Corporation is prohibited
Partnership is prohibited
Commercial association is prohibited between not fully integrated practitioners and fully integrated professionals
Number of firms restricted by quotas
Board of directors: majority must be nationals
Board of directors: majority must be residents
Board of directors: majority must be locally-licensed professionals
Board of directors: at least one must be national
Board of directors: at least one must be resident
Board of directors: at least one must be a locally-licensed professional
Manager must be national
Manager must be resident
Manager must be locally-licensed professional
Establishment of foreign firms restricted by economic needs tests
Acquisition of land and real estate by foreigners is prohibited
Acquisition of land and real estate by foreigners is restricted

Restrictions to movement of people

Quotas: intra-corporate transferees
Quotas: contractual services suppliers
Quotas: independent services suppliers

Labour market tests: intra-corporate transferees
Labour market tests: contractual services suppliers
Labour market tests: independent services suppliers
Limitation on stay for intra-corporate transferees (months)
Limitation on stay for contractual services suppliers (months)
Limitation on stay for independent services suppliers (months)
Nationality or citizenship required for license to practice
Prior or permanent residency required for license to practice
Domicile required for license to practice
Foreign engineers are required to take local examinations to qualify for full membership in the profession
Foreign engineers are required to practice locally for at least 1 year in order to become a full member of the profession
Compulsory membership in a professional association for foreign engineers is automatically granted if they have the required qualifications
Limited or temporary licensing system is available
Foreign providers have to completely re-do the university degree, practice and exam in the domestic country
Other discriminatory measures
Foreign suppliers treated less favourably regarding taxes and eligibility for subsidies
Use of foreign firm names is prohibited
Use of foreign firm names is allowed only alongside that of a local partner
Only locally-licensed engineers may use the name/title "Engineer"

Telecommunication

Restrictions on foreign entry

Maximum foreign equity share (%)
Maximum foreign ownership in local investment companies (%)
Statutory or legal limit on the shares that can be acquired by foreign investors in government controlled firms
Joint ventures required
Number of firms restricted by quotas
Board of directors: majority must be nationals
Board of directors: majority must be residents
Board of directors: at least one must be national
Board of directors: at least one must be resident
Manager must be national
Manager must be resident
Screening: foreign investors must show net economic benefits
Screening: approval unless contrary to national interest
Screening: notification
Restrictions on the type of shares or bonds held by foreign investors
Conditions on subsequent transfer of capital and investments

Restrictions to movement of people

Quotas: intra-corporate transferees
Quotas: contractual services suppliers
Quotas: independent services suppliers
Labour market tests: intra-corporate transferees
Labour market tests: contractual services suppliers

Labour market tests: independent services suppliers

Limitation on stay for intra-corporate transferees (months)

Limitation on stay for contractual services suppliers (months)

Limitation on stay for independent services suppliers (months)

Other discriminatory measures

Foreign suppliers treated less favourably regarding taxes and eligibility for subsidies

Distribution services

Restrictions on foreign entry

Maximum foreign equity share (%)

Statutory or legal limit on the shares that can be acquired by foreign investors in government controlled firms

Joint ventures required

Legal form: other restrictions

Board of directors: majority must be nationals

Board of directors: majority must be residents

Board of directors: at least one must be national

Board of directors: at least one must be resident

Manager must be national

Manager must be resident

Screening: foreign investors must show net economic benefits

Screening: approval unless contrary to national interest

Screening: notification

Conditions on subsequent transfer of capital and investments

Restrictions on cross-border mergers and acquisitions

Acquisition of land and real estate by foreigners is prohibited or restricted

Service provision is reserved for statutory monopoly or granted on an exclusive basis

Licences for the distribution of certain products are subject to quotas or economic needs tests

Licences for department stores or large-store formats are subject to quotas or economic needs tests

Zoning regulation discriminates foreign suppliers against domestic competitors

The number of sales outlets per firm is limited

Commercial presence is required in order to provide distribution services.

A licence is required for e-commerce

Restrictions on franchising

Restrictions on direct selling

Restrictions to movement of people

Quotas: intra-corporate transferees

Quotas: contractual services suppliers

Quotas: independent services suppliers

Labour market tests: intra-corporate transferees

Labour market tests: contractual services suppliers

Labour market tests: independent services suppliers

Limitation on stay for intra-corporate transferees (months)

Limitation on stay for contractual services suppliers (months)

Limitation on stay for independent services suppliers (months)

Other discriminatory measures

Foreign suppliers treated less favourably regarding taxes and eligibility for subsidies

Local sourcing requirements

Consumer credit licences are available to foreign retailers

Broadcasting***Restrictions on foreign entry***

Maximum foreign equity share (%)

Maximum foreign equity share (%)

Statutory or legal limit on the shares that can be acquired by foreign investors in government controlled firms

Joint ventures required

Broadcast or airtime quotas are in place for motion pictures

Broadcast time is regulated by quotas

The number of foreign channels is limited by quotas

Board of directors: majority must be nationals

Board of directors: majority must be residents

Board of directors: at least one must be national

Board of directors: at least one must be resident

Manager must be national

Manager must be resident

Foreign channels are subject to economic needs test

There are residency requirements for TV producers

Screening: foreign investors must show net economic benefits

Screening: approval unless contrary to national interest

Screening: notification

Restrictions on the type of shares or bonds held by foreign investors

Conditions on subsequent transfer of capital and investments

Restrictions on cross-border mergers and acquisitions

Limitations on downloading and streaming affecting cross-border trade

Restrictions to movement of people

Quotas: intra-corporate transferees

Quotas: contractual services suppliers

Quotas: independent services suppliers

Labour market tests: intra-corporate transferees

Labour market tests: contractual services suppliers

Labour market tests: independent services suppliers

Limitation on stay for intra-corporate transferees (months)

Limitation on stay for contractual services suppliers (months)

Limitation on stay for independent services suppliers (months)

Other discriminatory measures

TV channels receive discriminatory subsidies or tax breaks

There are discriminatory subsidies or tax breaks for the production of programmes

Subsidies and tax breaks for audio-visual work are subject to cultural tests

Compulsory local processing, dubbing and sub-titling

Foreign programme producers have to recruit part of the cast and crew among local professionals

Motion pictures***Restrictions on foreign entry***

Maximum foreign equity share (%)

Maximum foreign ownership in local investment companies (%)

Statutory or legal limit on the shares that can be acquired by foreign investors in government controlled firms

Joint ventures required
 Legal form: other restrictions
 Number of firms restricted by quotas
 Board of directors: majority must be nationals
 Board of directors: majority must be residents
 Board of directors: at least one must be national
 Board of directors: at least one must be resident
 Manager must be national
 Manager must be resident
 Screening: foreign investors must show net economic benefits
 Screening: approval unless contrary to national interest
 Screening: notification
 Restrictions on the type of shares or bonds held by foreign investors
 Conditions on subsequent transfer of capital and investments
 Restrictions on cross-border mergers and acquisitions
 Broadcast or airtime quotas are in place for motion pictures
 Screen quotas are in place
 Import duties on film
 Limitations on film renting
 Limitations on downloading and streaming affecting cross-border trade

Restrictions to movement of people

Quotas: intra-corporate transferees
 Quotas: contractual services suppliers
 Quotas: independent services suppliers
 Labour market tests: intra-corporate transferees
 Labour market tests: contractual services suppliers
 Labour market tests: independent services suppliers
 Limitation on stay for intra-corporate transferees (months)
 Limitation on stay for contractual services suppliers (months)
 Limitation on stay for independent services suppliers (months)

Other discriminatory measures

Foreign suppliers are treated less favourably regarding taxes
 Foreign suppliers treated less favourably regarding taxes and eligibility for subsidies
 Local content: replication requirements
 Local content: Obligations to perform dubbing and/or subtitling locally
 Local content: Limitations on cast and crew
 Discriminatory censorship fees and procedures

Sound recording

Restrictions on foreign entry

Maximum foreign equity share (%)
 Maximum foreign ownership in local investment companies (%)
 Statutory or legal limit on the shares that can be acquired by foreign investors in government controlled firms
 Joint ventures required
 Legal form: other restrictions
 Number of firms restricted by quotas
 Board of directors: majority must be nationals
 Board of directors: majority must be residents

Board of directors: at least one must be national
 Board of directors: at least one must be resident
 Manager must be national
 Manager must be resident
 Screening: foreign investors must show net economic benefits
 Screening: approval unless contrary to national interest
 Screening: notification
 Restrictions on the type of shares or bonds held by foreign investors
 Conditions on subsequent transfer of capital and investments
 Restrictions on cross-border mergers and acquisitions
 Quotas: A proportion of television or radio broadcast time is reserved to domestic music
 There is a statutory monopoly on copyrights management
 Limitations on downloading and streaming affecting cross-border trade

Restrictions to movement of people

Quotas: intra-corporate transferees
 Quotas: contractual services suppliers
 Quotas: independent services suppliers
 Labour market tests: intra-corporate transferees
 Labour market tests: contractual services suppliers
 Labour market tests: independent services suppliers
 Limitation on stay for intra-corporate transferees (months)
 Limitation on stay for contractual services suppliers (months)
 Limitation on stay for independent services suppliers (months)

Other discriminatory measures

Foreign suppliers are treated less favourably regarding taxes
 Foreign suppliers treated less favourably regarding taxes and eligibility for subsidies

Maritime transport

Restrictions on foreign entry

Maximum foreign equity share (%)
 Statutory or legal limit on the shares that can be acquired by foreign investors in government controlled firms
 Joint ventures required
 Foreign companies can establish subsidiaries
 Foreign companies can establish branches
 Board of directors: majority must be nationals
 Board of directors: majority must be residents
 Board of directors: at least one must be national
 Board of directors: at least one must be resident
 Manager must be national
 Manager must be resident
 Screening: foreign investors must show net economic benefits
 Screening: approval unless contrary to national interest
 Screening: notification
 Restrictions on the type of shares or bonds held by foreign investors
 Conditions on subsequent transfer of capital and investments
 Unilateral cargo reservations
 Bilateral/plurilateral cargo sharing agreements
 Other cargo reservations and preferential schemes

Restrictions to own and register vessels under national flags
Exclusion foreign-flagged ships (or other criteria, such as foreign-built ships)
There are temporary licenses or waivers to operate in national trade
Feederling is allowed
Repositioning of equipment is allowed
Statutory partial-access regime
Statutory monopoly on port services
Restrictions on the number of licenses/concessions
Restrictions on the type of vessels
Restrictions on the type and quantity of cargo transported
Restrictions to establish or operate representative offices
Restrictions on the chartering of vessels
<i>Restrictions to movement of people</i>
Quotas: intra-corporate transferees
Quotas: contractual services suppliers
Quotas: independent services suppliers
Labour market tests: intra-corporate transferees
Labour market tests: contractual services suppliers
Labour market tests: independent services suppliers
Limitation on stay for intra-corporate transferees (months)
Limitation on stay for contractual services suppliers (months)
Limitation on stay for independent services suppliers (months)
<i>Other discriminatory measures</i>
Foreign suppliers treated less favourably regarding taxes and eligibility for subsidies

Road freight transport***Restrictions on foreign entry***

Maximum foreign equity share (%)
Statutory or legal limit on the shares that can be acquired by foreign investors in government controlled firms
Joint ventures required
Foreign companies can establish subsidiaries
Foreign companies can establish branches
Board of directors: majority must be nationals
Manager must be national
Screening: foreign investors must show net economic benefits
Screening: approval unless contrary to national interest
Screening: notification
Restrictions on the type of shares or bonds held by foreign investors
Conditions on subsequent transfer of capital and investments
Licensing/permits are subject to quotas for domestic traffic
Licensing/permits are subject to an economic needs test
Commercial presence required in order to provide road freight transport

Restrictions to movement of people

Quotas: intra-corporate transferees
Quotas: contractual services suppliers
Quotas: independent services suppliers
Labour market tests: intra-corporate transferees
Labour market tests: contractual services suppliers

Labour market tests: independent services suppliers

Limitation on stay for intra-corporate transferees (months)

Limitation on stay for contractual services suppliers (months)

Limitation on stay for independent services suppliers (months)

Other discriminatory measures

Foreign suppliers treated less favourably regarding taxes and eligibility for subsidies

Rail freight transport

Restrictions on foreign entry

Maximum foreign equity share (%)

Statutory or legal limit on the shares that can be acquired by foreign investors in government controlled firms

Joint ventures required

Foreign companies can establish subsidiaries

Foreign companies can establish branches

Board of directors: majority must be nationals

Board of directors: majority must be residents

Board of directors: at least one must be national

Board of directors: at least one must be resident

Manager must be national

Manager must be resident

Screening: foreign investors must show net economic benefits

Screening: approval unless contrary to national interest

Screening: notification

Restrictions on the type of shares or bonds held by foreign investors

Conditions on subsequent transfer of capital and investments

Service provision is reserved for statutory monopoly or granted on an exclusive basis

Licenses are subject to quotas

Licenses subject to economic needs tests

Transit rights for international rail transport

Access rights for international combined transport

Access rights for international rail transport

Access rights for rail transport

Restrictions to movement of people

Quotas: intra-corporate transferees

Quotas: contractual services suppliers

Quotas: independent services suppliers

Labour market tests: intra-corporate transferees

Labour market tests: contractual services suppliers

Labour market tests: independent services suppliers

Limitation on stay for intra-corporate transferees (months)

Limitation on stay for contractual services suppliers (months)

Limitation on stay for independent services suppliers (months)

Other discriminatory measures

Foreign suppliers treated less favourably regarding taxes and eligibility for subsidies

Courier services***Restrictions on foreign entry***

Maximum foreign equity share (%)

Maximum foreign ownership in local investment companies (%)

Statutory or legal limit on the shares that can be acquired by foreign investors in government controlled firms

Joint ventures required

Board of directors: majority must be nationals

Board of directors: majority must be residents

Board of directors: at least one must be national

Board of directors: at least one must be resident

Manager must be national

Manager must be resident

Screening: foreign investors must show net economic benefits

Screening: approval unless contrary to national interest

Screening: notification

Restrictions on the type of shares or bonds held by foreign investors

Conditions on subsequent transfer of capital and investments

Monopoly on letters (kg)

Monopoly on parcels (kg)

Monopoly on express delivery

The number of available licences for courier firms is limited

Licences are subject to an economic needs test

Restrictions on foreign owned firms' establishments

Memo: A licence/authorisation is required to enter the market

Restrictions to movement of people

Quotas: intra-corporate transferees

Quotas: contractual services suppliers

Quotas: independent services suppliers

Labour market tests: intra-corporate transferees

Labour market tests: contractual services suppliers

Labour market tests: independent services suppliers

Limitation on stay for intra-corporate transferees (months)

Limitation on stay for contractual services suppliers (months)

Limitation on stay for independent services suppliers (months)

Other discriminatory measures

Foreign suppliers treated less favourably regarding taxes and eligibility for subsidies