

Baiker, Laura et al.

Working Paper

The State of Global Services Trade Policies: Evidence from Recent Data

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Working Papers

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Laura Baiker
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Ester Rubio Colomer^{1,2}

Authorized for distribution by Daria Taglioni, Research Manager, Development Research Group,
and Sebastien Dessus, Practice Manager, Prosperity Vertical, World Bank Group

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1 INTRODUCTION

Current applied services trade policies and regulations are the result of more than three decades of policy development in the area of trade in services. The Services Trade Policy Database (STPD) in its 2024 version offers for the first time the possibility of examining current patterns of services trade policies in a comprehensive manner, i.e., across a wide range of services sectors and with a truly global coverage in terms of income groups and regions. This was possible thanks to the joint efforts of the World Trade Organization (WTO) and the World Bank, in cooperation with the Organisation for Economic Cooperation and Development (OECD), the International Trade Centre (ITC), the German Ministry for Economic Cooperation and Development (BMZ),³ and the European Union (EU). The size of the sample, 134 economies, has almost doubled compared to the one used in the analysis published in 2020, which was based on 68 economies (cf. Borchert et al., 2020). All world regions are now substantially covered and, using the World Bank's 2022 income per capita brackets, coverage extends to 21 low-income, 39 lower-middle income, 32 upper-middle income, and 41 high-income economies, respectively.⁴

Sector coverage has also been greatly expanded compared to previous analyses, now including information on nine broad services sectors (professional, computer, communications, construction, distribution, finance, health, tourism, and transport) that cover major parts of the economy, and within which policy information is available for 34 disaggregated subsectors. For some of these subsectors, such as tourism or health-related services, policy information has been collected for the very first time in part because these are thought to be particularly salient for economic prosperity and social well-being in many developing economies.

The applied services trade policies of almost half of the economies currently available in the STPD have already been surveyed at some point in the recent past. As a result, for a large and representative sample of economies, it is now possible to examine the evolution of policies over time. Hence, this paper makes two principal contributions. First, we provide an in-depth discussion of current (as of 2022) applied services trade policies across 134 economies, including almost all economies of continental Africa and Pacific Island economies (Section 3). Second, we illustrate how fundamental trends of policy stances have changed between 2016 and 2022, and how the most recent changes over the last six years differ fundamentally from the earlier trends that had unfolded over the 2008-16 period (Section 4).

³ Through its implementing agency, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

⁴ Western Sahara is not included in the World Bank's income group classification. See Annex 1 for the list of economies by income group.

We start by reviewing the latest advancements to the quantification methodology that underpins the WTO-WB Services Trade Restrictions Index (STRI, see Section 2), and we conclude by illustrative examples of how the repository of policy information and restrictiveness scores—as a global public good—can be leveraged for regulatory analyses and trade negotiations, and how the STRI can be used to gauge the services trade cost implications of actual policy changes (Section 5).

Our analysis of information contained in the 2024 version of the Services Trade Policy Database yields the following key messages:

- ▶ Across the globe, average policy restrictiveness affecting trade in services remains substantial.
- ▶ Low-income and lower-middle income economies appear as the most restrictive in many broad services sectors, compared to higher income economies. Moreover, in computer, professional, and transportation services lower-middle income economies apply even more restrictive policies than low-income countries.
- ▶ Services trade policy exhibits considerable variation both across and within regions. Africa in particular stands out for the pronounced heterogeneity in countries' services trade policies. Policy stances also vary considerably across economies within any given service sector.
- ▶ Economies with a higher share of industrial value added in Gross Domestic Product (GDP) tend to have more restrictive services trade policies. A potential concern for developing and emerging economies is that their more restrictive policy stance may be depriving them of opportunities for value chain integration, as the production and export of industrial goods requires a range of services that may be lacking locally or be overly expensive.
- ▶ There is convergence of Most Favored Nation (MFN) policy restrictiveness in specific sectors among parties to economic integration arrangements, such as for the West African Economic and Monetary Union (WAEMU), East African Community (EAC), and European Union (EU), and also among parties to the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). However, parties to the Regional Comprehensive Economic Partnership (RCEP) show more heterogeneous MFN policies.
- ▶ Cross-border supply of services (mode 1) is on average more restricted than the supply through commercial presence (mode 3) or the temporary presence of natural persons (mode 4) and exhibits greater variation in policy restrictiveness across subsectors.
- ▶ Focusing on changes in policy over time, we observe a profound shift in overarching global trends. Prior to 2016 the main development was one of policy convergence in telecommunications and finance accompanied by policy divergence in transport and professional services, driven by reforms in advanced economies. From 2016 onward, however, vigorous liberalization of services trade policies by lower-income countries,

combined with movements towards more restrictiveness in high-income and upper middle-income economies, are leading to a global convergence of policies.

- ▶ The relative stabilization of policies in more advanced economies, and in some instances even a retraction from openness, is driven by increased use of investment screening and new quantitative restrictions on the movement of people. One global trend that is shared by many economies is an increase in restrictiveness driven by horizontal measures affecting cross-border data flows, which has notably affected Mode 1 STRI scores across all subsectors and economy income groups.
- ▶ With the help of structural gravity estimations, we show how the liberalization of sectoral policies over the 2016-22 period can be translated into decreases in service trade costs, which mostly benefit developing economies. Conversely, the observed policy reversals are shown to be associated with higher services trade costs.

2 THE NEW 2024 WB-WTO SERVICES TRADE POLICY DATABASE

2.1 Updates on the Coverage of the Services Trade Policy Database

The Services Trade Policy Database (STPD) builds on a number of prior initiatives, notably by the World Trade Organization (WTO), the World Bank and the Organisation for Economic Cooperation and Development (OECD),⁵ and in its current version offers major extensions relative to the previous data release in 2019.

Expanding from the previous release, which encompassed data on services policy and regulation in 69 economies, the coverage now extends to 134 economies. In addition to 69 economies that were updated to 2022, data have been released for all remaining African economies (except Eritrea), six Pacific Island economies, and Timor-Leste. Four new economies were added in 2023, namely Jamaica, Belize, Jordan and Uzbekistan. The full list of economies currently published in the STPD is reproduced in Annex 1. Regulatory and policy information were primarily collected through surveys conducted by the World Bank and WTO, which were filled by local/regional law firms or consultants who were familiar with the services policy regimes in the respective economies. Data from the OECD Services Trade Restrictiveness Index Regulatory Database were used as a source of information for 49 economies.⁶ At the time of writing, the updating of data for the seven signatories of the Central European Free Trade Agreement (CEFTA) and data collection for Azerbaijan and Mongolia had been finalized.⁷

As of April 2024, the STPD covers 34 services subsectors and contains information on policies and regulations that affect international trade in services on a *cross-border basis* (Mode 1), through a *commercial presence* (Mode 3), or through the *movement of natural persons* (Mode 4).⁸ Compared to the previous version, Mode 1 is now being considered for the telecommunications and road freight transport subsectors. Also, the coverage of measures

⁵ See Borchert et al (2019).

⁶ Cooperation by the OECD Secretariat, which made available such data, is gratefully acknowledged.

⁷ This new information will be integrated and made publicly available in the STPD in March 2025.

⁸ The General Agreement on Trade in Services (GATS), the multilateral agreement dealing with trade in services, defines four modes to supply services. This coverage of modes of supply is used in one way or the other in most trade agreements covering services. Cross-border supply (mode 1) occurs when both the supplier and consumer remain in their respective territory, and only the service crosses the border. This would cover for example the supply of computer services from abroad through the telecommunications network. Consumption abroad (mode 2) refers to the consumer moving to the territory of the supplier and consuming services there, such as a person going abroad to receive medical treatment. Commercial presence (mode 3) is when the supplier establishes or acquires a juridical person (or other forms of presence such as a branch, representative office or a joint venture) in the territory of the consumer (e.g., a foreign bank establishing a subsidiary). Finally, the presence of natural persons (mode 4) mainly refers to the temporary movement of employees of a foreign service supplier (in the context of a service contract between the supplier and the client in the receiving country, or intra-corporate transfers) or self-employed service suppliers. A foreign architect traveling to the jurisdiction of its client to deliver his/her service would be an example of mode 4.

has increased substantially, in particular pertaining to the facilitation of administrative procedures, regulatory transparency or stakeholder engagement.

This new release of the STPD made major progress on the sectoral dimension. Relative to the previous release, 12 additional sectors are included: architecture and engineering (as part of professional services); computer and related services; construction; health-related services; hotels and lodging services, travel agencies and tour operator services, and tourist guide services (as part of Tourism); television, motion picture, and sound recording services (as part of audiovisual); and postal/courier services. For health-related services, policies pertaining to *consumption abroad* (Mode 2) are also included because of the pertinence of sector specific restrictions for this mode. For hotels and tourist guide services, the emphasis is mostly on Mode 3 and Mode 4 policies respectively. See Annex 2 for more details on the sectoral and modal coverage.

The database focuses on economies' Most-Favored Nation (MFN) policies, but work is underway to construct companion services trade restrictions indices that would capture policies at alternative levels of policy making such as multilateral commitments and preferential policies.

2.2 Updates to the Quantification of Applied Services Trade Policies

The three principal steps employed to convert a large set of qualitative regulatory measures into Services Trade Restrictions Indices (STRI), at various levels of aggregation, is substantially the same as described in Borchert et al. (2020a). Yet each of the principal steps has been extended or improved, as described in this section.

2.2.1 Measure selection and data

The first step consists of the *selection* of key restrictions entering the Services Trade Restrictions Index (STRI). As before, the index is based upon a subset of services trade policies that may affect trade in services, named "key restrictions". The list of such restrictions covers the most significant restrictions of sectoral or horizontal application and takes into account expert advice. The set of key restrictions has been expanded in two ways: firstly, a number of measures—mainly on competition policy and data flow restrictions—now attract a measure-level score that was previously not included in the STRI. The aim of these changes is to better reflect the salience of these policy areas for services trade. Secondly, some additional sector-specific measures are included in the construction of STRIs: Mode 1 related measures are now scored in three additional subsectors (road freight transport, fixed-line and mobile telecommunication), whereas flying the national flag under Mode 3 is scored as part of

maritime transport, in addition to other forms of commercial presence. Approximately 150 policies underpin the construction of STRI values now.⁹

With a view to improving the comparability of STRI scores over time, the information to fill the new set of measures has also been reviewed and, where necessary, suitably amended. For economies covered by the OECD STRI regulatory database, revised 2016 data coming from the OECD were used, whereas for non-OECD economies, the regulatory information for 2016 was reviewed and compared against current 2022 policies and, when necessary, 2016 information was revised as appropriate. Moreover, some of the newly added key restrictions, particularly concerning competition and pertaining to telecom services and road freight services, had not been available for several economies in 2016. To ensure the comparability between the 2016 and recent STRIs, measures that were absent in 2016 have been estimated by integrating data from 2022.¹⁰

The various extensions embodied in the latest vintage of the STPD—mainly the inclusion of new subsectors but also Mode 1 coverage in some subsectors—imply certain caveats when the most recent STRI scores in certain subsectors or broad sectors are compared with 2016 scores. For instance, the broad sector “Professional services” did not include architecture and engineering services in 2016. Similarly, road transportation and the two telecommunications subsectors did not include Mode 1 measures in 2016. When we discuss the evolution of policy restrictiveness over time in Section 4 below, we take these differences into account and—solely for the purposes of some figures in Section 4—construct STRI scores that are more comparable across time than the published STRI values.

2.2.2 Determination of level of restrictiveness

The level of restrictiveness of individual key restrictions is determined through the assignment of scores identified in a scorecard. Six levels of restrictiveness are distinguished, with a score of 1 being the highest level (i.e., for sector-mode closure) and 0 the lowest (i.e. absence of a restrictive measure). The lack of certain “good regulatory practices” is assigned a score of 0.125. When some measures are conceptually intertwined, it is the bundle of measures that is scored (e.g., different routes of entry for mode 3).

The significant expansion of the STPD’s sectoral coverage, from 23 to 34 subsectors, and the introduction of new key restrictions, brought a range of new measures into the ambit of the STRI, e.g., in health-related services, for which measure-level scores needed to be determined. Internet services, by contrast, has been dropped as a subsector from the broader

⁹ A complete list of measures selected for the construction of the STRI is provided in the [publicly available documentation](#) entitled “World Bank-WTO Services Trade Restrictions Index (STRI) Methodology” (November 2024 at the time of writing), Tables 4 and 5.

¹⁰ See the Methodology document referred to and linked in Footnote 9 above, Table 8.

Communications sector, since most of the information was deemed to be already included in the two other telecommunications subsectors covered, namely fixed-line and mobile services.

2.2.3 Aggregation

The core approach of aggregating a large set of individual measure scores by using a modular and flexible Constant Elasticity of Substitution (CES) function with one free parameter is essentially unchanged. At the same time, four important modifications were implemented:

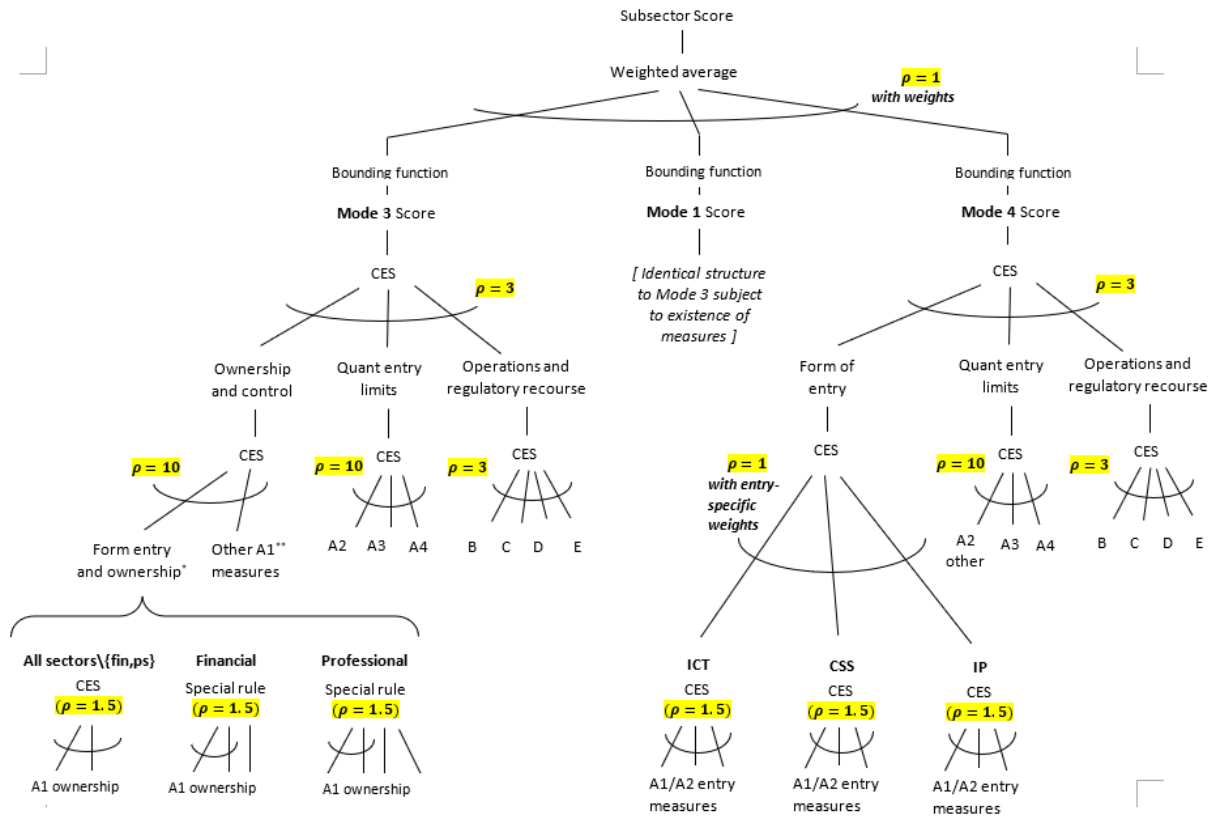
- (i) an improved approach to quantifying the restrictiveness across multiple alternative entry routes for Mode 4 services trade;
- (ii) an expanded set of nests for the CES structure;
- (iii) the application of a two-part bounding function to ensure that any STRI value stays inside the unit interval; and
- (iv) the determination of new modal and sectoral weights due to the expansion of subsectors.

We briefly explain each of these methodological improvements and recapitulate the four key desirable properties that are associated with aggregating restrictiveness scores using a CES function.

(i) Scoring Mode 4 market entry. The new approach to quantifying Mode 4 carefully evaluates market access conditions for each of the three main routes of entry for supplying Mode 4 services trade (intra-corporate transferees, contractual services suppliers, independent professionals) before aggregating them to quantify policy restrictiveness of Mode 4 in its entirety. This represents a fundamental improvement to the previous method, which assessed market entry additively and jointly for the three routes before aggregating this with quantitative limitations on the types of workers. In contrast, the new approach considers more carefully entry conditions for the three types of natural persons as *alternative* (albeit imperfectly substitutable) routes of entry by combining entry measures, quantitative limitations, and labor market tests separately for each of them, resulting in individual scores for the different routes. At the same time, this approach takes advantage of the properties of the CES function by determining a value for parameter ρ_k that allows quantitative limitations and labor market tests be considered partially substitutable within each category of natural persons. Only in a second step are the scores for the three routes of entry combined by applying weights for the different Mode 4 categories. The set of weights applied to the three entry routes varies across groups of subsectors, reflecting the relative salience of each route in the respective sectors.¹¹ These were defined through expert assessment.

¹¹ See the Methodology document referred to and linked in Footnote 9 above, Table 3.

Figure 2.1: 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 (Intra-Corporate Transferees, Contractual Service Suppliers-CSS, Independent Professionals/self-employed-IP).

** The letters A1 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'; e.g. a joint venture requirement or majority of nationals (or residents) on the board of directors.

(ii) Complete CES aggregation structure. Figure 2.1 documents the full CES structure of aggregation nests, with the new approach to quantifying the restrictiveness of Mode 4 entry depicted on the right-hand side. This represents a complete and updated version of Figure 2 in Borchert et al. (2020). The choices for values of the parameter ρ_k for all groups of measures ("CES nests") is also documented in Figure 2.1 with yellow highlights. The parameter ρ_k governs the way in which the scores of a group of measures are combined in the aggregator function of equation (1). Specifically, higher values of ρ will lead to smaller incremental contributions of additional measures to a nest's aggregate restrictiveness, reflecting greater substitutability of measures. A lower value of ρ translates into greater contributions of individual measures to aggregate restrictiveness, displaying their complementary nature.

Indeed, a value of ρ equal to one would render the aggregation a purely additive procedure. The values were determined following a thorough testing of different scenarios, considering the substitutability and complementarity of measures in different nests. The choices for values of the parameter ρ_k for all groups of measures (“CES nests”) is also documented in Figure 2.1 with yellow highlights.

The modular structure of the CES function allows us to break down the aggregation of scores across the universe of all measures into several steps and to explicitly model the relationship of bundles of policy measures that belong together as either substitutable or complementary with a suitable parameter choice for ρ_k .

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

(iii) Two-part bounding function. Using a concave CES function to aggregate a potentially very large set of individual measure scores yields a value that is in principle unbounded. As such the resultant score could potentially exceed the admissible range for the STRI, i.e. the interval between zero and one (up to scale). Therefore, the aggregation methodology now features a bounding function that systematically ensures that the resultant STRI always stays within its admissible range. To achieve this, a monotone transformation is applied to STRI values at the subsector-Mode level such that the CES index will only *approach* unity in the limit but will never reach it (recall that STRI values of 1 are reserved to closed subsector-Mode combinations). The generalized logistic function is a natural candidate to map the positive real line into the unit interval. That particular function has 5 free parameters (denoted by A, B, K, Q, η) and takes the following form:

$$f(x) = A + \frac{K-A}{(1+Qe^{-Bx})^{1/\eta}} \quad (2)$$

With a suitable choice of parameters, the function takes on a sigmoid shape and its location and curvature can be modified so that the transformation only applies to large STRI values, thereby leaving low STRI scores unaffected. In fact, we define a *two-part* bounding function and choose parameters so that the logistic function’s concave part is tangential to the 45-degree line at the point where STRI scores would take a value of 0.75, thereby avoiding any discontinuity in the bounding function.

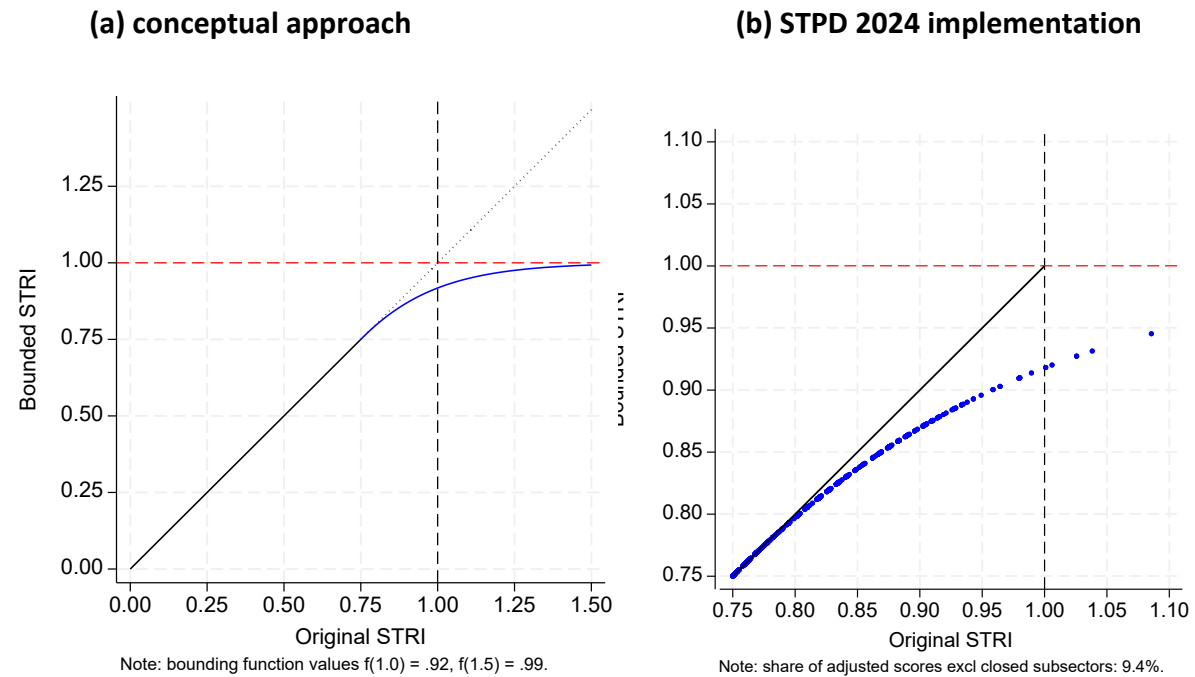
The following fully parameterized specification of a generalized logistic function represents the most parsimonious approach that ensures that STRI values always stay within the admissible range, whilst at the same time causing no distortion to lower STRI values that are far away from the value of 1 (which continues to be reserved for closed subsector-modes):

$$f(x) = \begin{cases} x, \forall x \in [0, 0.75) \\ \frac{1}{(1+5e^{-5x})^{2.58765}}, \forall x \in [0.75, \infty) \end{cases} \quad (3)$$

In terms of the general form in equation (2), the function that we apply has parameter values $A = 0, K = 1, B = 5, Q = 5, 1/\eta = 2.58765$.

Figure 2.2 illustrates the concept of a bounding function as defined in equation (3) and its application. In Panel (a) on the left-hand side the entire two-part bounding function is depicted, which consists of a 45-degree line (in black) and the sigmoid part that is bent away from unity (in blue). Panel (b) on the right-hand side shows the actual outcome for values of STRIs above 0.75 for the case of aggregating the 134 economies in the 2024 vintage of the STPD. The figure clearly shows that less than 10% of all subsector-mode scores are affected at all in the first place by the bounding function, of which only 7 individual values would have exceeded unity. For the maximum unadjusted value in this particular sample (1.0856), the bounding function returns an adjusted STRI value of 0.9454.

Figure 2.2: Two-part bounding function



(iv) Aggregation to subsectors and broad sectors. In order to arrive at one STRI value per subsector, the modal scores are aggregated using a weighted arithmetic average, as described by Borchert et al. (2020). The substantial expansion of subsectors in the STPD necessitated the determination of new modal weights for the 12 additional subsectors as well as accounting for the inclusion of mode 1 for road freight transport, fixed-line and mobile

telecom. The chosen weights reflect the relative importance of each mode for the provision of a given service.¹²

Finally, following a classification of subsectors into “broad sector” categories, subsector STRIs are further aggregated to arrive at scores for the nine broad sectors covered in the STPD. These STRIs are constructed using value-added weights of services sectors of individual economies’ total value added for 2021.¹³

2.2.4 Key desirable properties of aggregating restrictiveness scores with a CES function

The CES approach to aggregation, including the latest methodological innovations, offers *conceptual* as well as *practical* improvements. Its modular structure affords the flexibility to accommodate a range of different tasks in one framework, from the aggregation of measures that are nearly additive to those whose incremental impact on restrictiveness is almost negligible. At the same time, the approach is extremely parsimonious, fully transparent, and guarantees reproducibility of STRI scores.

Moreover, this particular methodology ensures that inferred policy restrictiveness will exhibit four key properties, which we regard as innovative for the construction of plausible restrictiveness scores. Table 2.2 below illustrates each of these properties with a concrete example (assuming without loss of generality a parameter value of $\rho = 3$):

- 1) The aggregate score of any arbitrary bundle of measures is driven only by restrictions actually applied and is therefore independent of the number of measures that are *not* applied in a given context (unlike e.g. a simple average).
- 2) Overall restrictiveness is increasing in the number of applied policies with non-zero scores; however,
- 3) Overall restrictiveness is rising at a decreasing rate, i.e. the marginal contribution of applied policies to restrictiveness falls. The second and third row of Table 2.2 demonstrate that the addition of a restriction scored at 0.50 to an already existing restriction with the same measure-level score increases restrictiveness by 0.13, i.e. appreciably less than 0.50. Moreover, adding a third 0.50 measure contributes only 0.09 to overall restrictiveness, compared to 0.13 of the second measure. Taken together, the presence of three such important restrictions is roughly equivalent to the presence of one very restrictive measure that would be scored 0.75 on a stand-alone basis.

¹² See the Methodology document referred to and linked in Footnote 9 above, Table 6.

¹³ See the Methodology document referred to and linked in Footnote 9 above, Table 7. The share across sectors is derived from the 2022 version of the OECD STAN database, and the within-sector weights are derived from the value-added shares of subsectors in the total economy if these were available; otherwise, equal shares were used (e.g. within tourism).

- 4) The marginal contribution of any given applied measure to policy restrictiveness is not fixed but *depends on the co-existence* of other applied measures. The fourth row of Table 2.2 differs from third row only in that the two pre-existing measures (in blue) are evaluated at 0.25 rather than 0.50. Yet this modification changes the marginal contribution of the third measure (0.50 in either case) from 0.09 to 0.22. This last property renders the CES aggregation largely immune to the double-counting of essentially irrelevant minor restrictions. Viewed differently, adding two minor 0.25 measures to a pre-existing 0.5 measure leaves restrictiveness virtually unchanged (0.54 versus 0.50), because minor restrictions matter less in the presence of a major restriction.

Table 2.2: Key properties of CES aggregation of measure-level scores ($\rho = 3$)

Set of scores (m_i)	Increm. change	Aggreg. index	Statistical Property
0.00 + 0.00 + 0.50	0.50	0.50	Aggregate STRI independent from number of measures <i>not applied</i> .
0.50 + 0.50	0.13	0.63	<i>Increasing</i> restrictiveness at decreasing rate.
0.50 + 0.50 + 0.50	0.09	0.72	Marginal contribution is <i>falling</i> ; Three medium restrictions roughly equivalent to 1 major restriction.
0.25 + 0.25 + 0.50	0.22	0.54	Marginal contribution to restrictiveness depends on set of applied measures.

3 THE GLOBAL STATE OF SERVICES TRADE POLICIES 2019-22 (134 ECONOMIES)

3.1 Services Trade Policy Restrictiveness across Broad Sectors

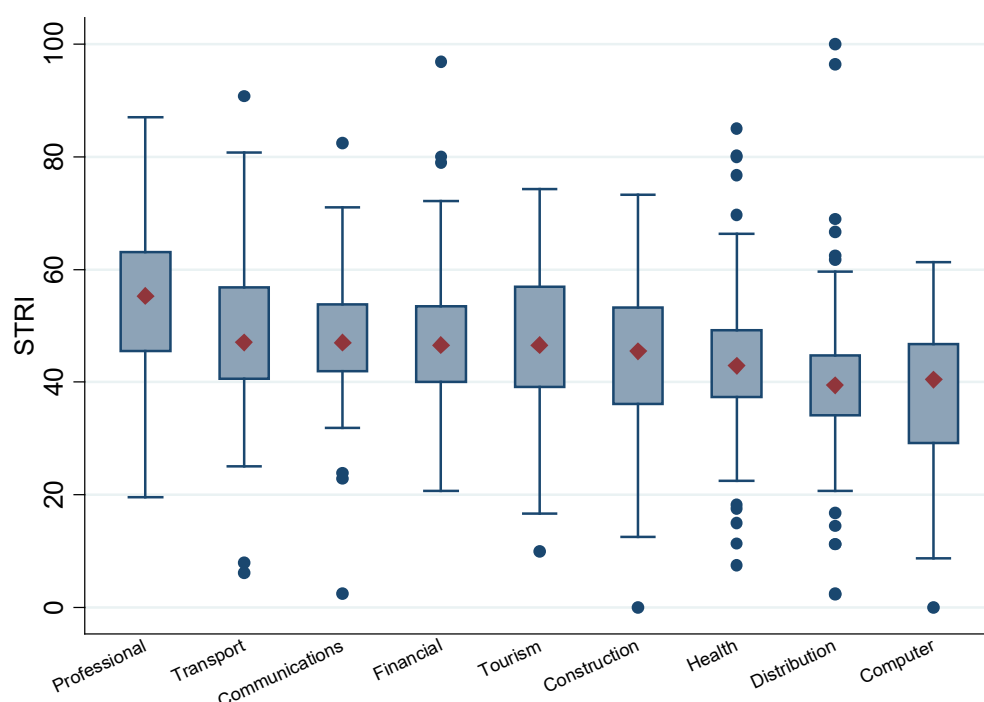
Openness towards foreign services and service providers varies considerably across economies. Figure 3.1 summarizes the distribution of STRI scores by broad sector across all economies. Although very few economies are completely closed regarding the entry and operation of foreign services suppliers, policy restrictiveness appears to be high on average given that the overall median STRI value is 47.¹⁴ At the same time, services trade restrictiveness varies considerably across the 9 broad sectors and across the 134 economies. The median STRI ranges from approximately 40 for distribution and computer services to 55 for professional services, which are subject to many stringent requirements in most economies (red diamonds in Figure 3.1 denote median STRIs). Traditional backbone service sectors such as transportation, communications and financial services, which are integral to value chain trade, all exhibit similar levels of restrictiveness with a global median STRI value of slightly below 50. As this value lies halfway between full openness and complete closure, it is fair to say that these services sectors continue to exhibit a range of trade restrictions in most economies. Restrictions to trade in tourism-related services are surprisingly high given that this sector is not typically regarded as highly regulated. By contrast, restrictions to trade in health-related services appear to be surprisingly low against the backdrop of this sector's high regulatory intensity that is aimed at ensuring quality of service provision and universal access. The solution to this apparent puzzle lies in a nuanced understanding of restrictiveness across the various modes of supply, which we discuss in detail at the end of this section.

The dispersion across economies of policy restrictiveness within different sectors is also of interest. This dispersion differs across sectors, even for those with very similar median STRI values. There is indeed substantial variation of protection levels within sectors. Computer and distribution services, for example, exhibit the same median STRI but the pattern of policies across economies is very different in both sectors. Distribution services display little variation overall, with 50% of the economies closely clustering around the median STRI (between 35 and 45), yet featuring about a dozen outliers that are either very open, such as Hong Kong SAR, China and Cabo Verde (below 20) or very restrictive, such as Libya and Sudan (above 60). Policy stances for computer services, by contrast, are much more closely scattered around its median STRI with only Hong Kong SAR, China with an STRI of zero appearing outside the interquartile range. Likewise, the median STRI is similar across sectors as different as communications, construction, finance, transport and tourism, respectively, but the pattern of policies across economies within each of these is not the same. In finance, for example,

¹⁴ Considering that the WB-WTO STRI allows for complete closure of markets (STRI = 100), and therefore for an 'infinite' level of protection, a median value of 47 represents a fairly high level of restrictiveness. This is reinforced by the fact that the measures chosen to build the STRI focus on those particularly affecting the entry, operation and competition of foreign service suppliers.

there is no economy with very low restrictiveness (below 20), and 25% of the economies maintain restrictive policies (between 55 and 75), including a couple of economies (e.g., Ethiopia and India) that exhibit high restrictiveness of 80 and above. Policies governing trade in communications services show substantially less variation, with 50% of economies falling within a range of 42 to 54, whereas in tourism and construction, economies demonstrate a wide range of restrictiveness, with policies varying from as liberal as 15 to as restrictive as 75.

Figure 3.1: Distribution of STRIs by Broad Sector, 2019-22



Note: The box plot divides the sample into quartiles, each containing approximately 25% of the data. The box represents the middle 50% of the scores (interquartile range), stretching from the first quartile (25th percentile) to the third quartile (75th percentile), with the diamond inside indicating the median. The whiskers extend to the minimum and maximum values within the typical range, representing approximately the lower and upper 25% of scores, respectively. Scores outside this range are considered outliers and are shown separately.

3.2 Services Trade Policy Restrictiveness across Income, Geographical and Economic Groupings

In general, services trade policies are more restrictive in low-income and lower-middle income countries compared to those in higher income countries (Table 3.1, which presents average STRI scores by broad sector and income bracket), reflecting *inter alia* the head start that higher-income economies had in the process of services market liberalization. One ramification of generally higher restrictiveness in lower-income economies, as noted by Baiker et al. (2023), is that these economies are hampering services activities in sectors that are either crucial for their integration into global value chains, such as transportation,

financial and communication services, or that constitute traditional sources of income (e.g., tourism).

The only two exceptions to this stylized fact are distribution services, for which economies in all income groups apply similarly restrictive policies, and computer services, in which high-income countries are on average most restrictive whereas low-income countries are the most open. The latter may be explained by the fact that the STRIs for computer services in high-income economies are driven mostly by regulations on cross-border data flows and investment screening mechanisms, which are often absent in lower-middle income and countries, whereas in other sectors, there is a wider range of sector-specific policy measures driving the STRIs across all income groups.

Policy restrictiveness also does not always necessarily fall as economies grow richer. In some instances, lower-middle income economies in fact apply more restrictive policies than low-income countries. That is notably the case in computer, professional, and transportation services, respectively, and to a lesser extent in tourism. One reason for this phenomenon might be the overall absence of a regulatory framework for these services sectors in some of the poorest economies – cases in which the STRI methodology leans towards openness. As regulatory capacity increases with rising income, policies impacting services trade and resulting in higher STRIs are being put in place in the process.

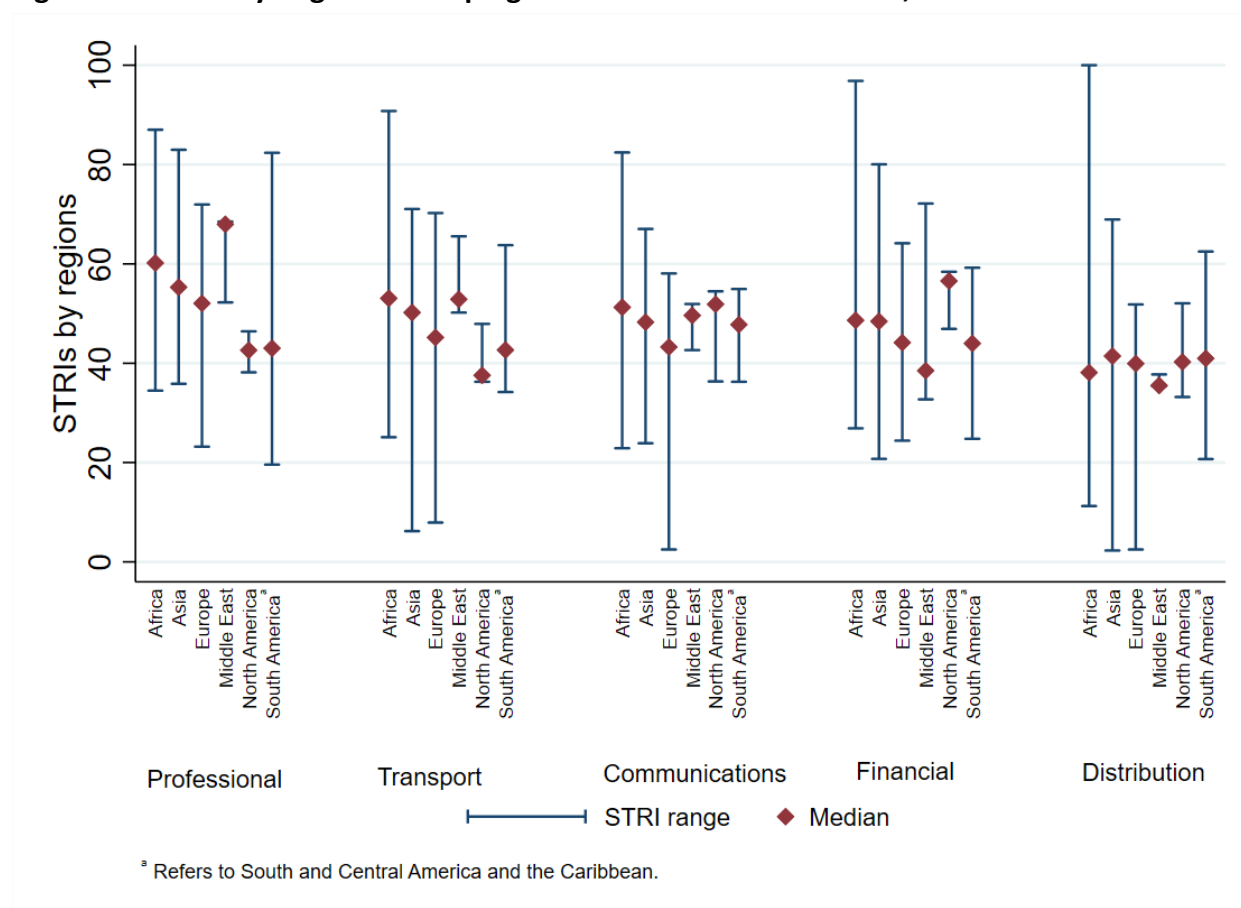
Table 3.1: STRI by Broad Sector and Income Group, 2019-22

Broad Sector	Income Group in 2022			
	High	Upper Mid	Lower Mid	Low
Communications	43.7	49.0	50.1	49.9
Computer	41.7	38.5	36.3	33.1
Construction	43.6	40.9	44.4	47.5
Distribution	39.0	41.6	38.8	39.5
Financial	43.5	48.5	50.4	50.0
Health	43.5	40.2	45.5	45.3
Professional	52.2	51.0	60.2	55.7
Tourism	45.1	44.9	50.5	47.6
Transport	44.0	47.9	54.0	49.7
Number of economies	41	32	40	21

Looking at services trade policy by geographical groupings reveals substantial differences in median restrictiveness in the spatial dimension as well (Figure 3.2), although clearly income per capita correlates with regions; for instance, considering the presence of many lower-income economies in Africa. The region stands out for its heterogeneity of policies across

most sectors, with wide-ranging disparities around the median. While differences in sample size of regional groupings should be noted,¹⁵ similar variations in certain regions and sectors are also observed in Asia (Transport, Distribution), Europe (Transport, Communications, Distribution), and South America (Professionals).

Figure 3.2: STRIs by Regional Groupings and Selected Broad Sectors, 2019-22



The presence of common rules or economic objectives may lead to MFN services trade policies being more similar across economies in certain sectors. Many economies are party to one or more regional economic groupings that could potentially—*de facto* or *de jure*—act as conduits for coordinating services trade policies among its members, consequently exhibiting common MFN restrictions for non-parties to the groupings, such as prohibiting cross-border supply or conditioning it on the establishment of a commercial presence, or nationality requirements notably affecting temporary presence of natural persons. Figure 3.3 presents results for a selection of economic groupings.¹⁶ In Africa, for example, common policies in the West African Economic and Monetary Union (WAEMU) may have affected the level and

¹⁵ Regional coverage varies across the dataset: Africa includes 54 economies, Asia 27, Europe 35, South America and Central America and the Caribbean 12, while the Middle East and North America each include 3 economies. STRIs are available only for Israel, Jordan, and Oman in the Middle East grouping, and for Canada, Mexico, and the United States in North America. For more details of regional groupings, refer to definitions used in the WTO. See [WB-WTO | I-TIP Services](#).

¹⁶ A list of the economic groupings used is provided in Annex 3: Composition of Economic Groupings.

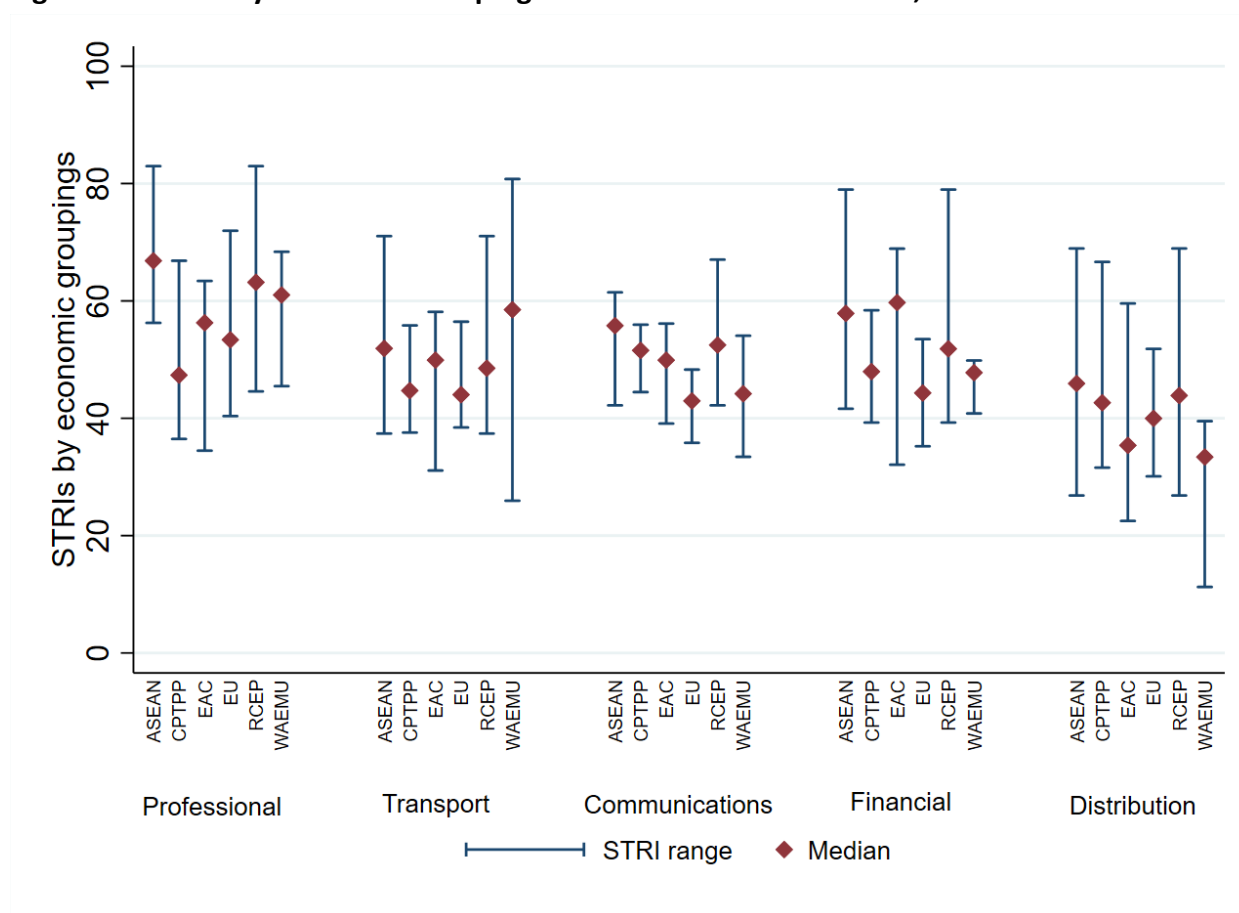
similarity of services trade restrictiveness in some sectors; for instance, regional banking regulations developed by WAEMU. Insurance services are also covered by common legislation in the context of the Inter-African Conference on Insurance Markets (CIMA), which includes WAEMU parties. This translates into a high level of alignment of policies even on an MFN basis in the financial services sector (note that the preferential treatment that economies accord to one another are not captured by the STRI, which reflects legislative measures that apply on an MFN basis).

A similar pattern can be identified for professional services, for which WAEMU member states have also embarked on a liberalization process in regulatory cooperation. Several regional regulations or directives exist for accounting/auditing services, legal representation services, or health professional services for this grouping, often featuring WAEMU nationality requirements for the right to practice, meaning that nationals of third parties cannot (i.e. on an MFN basis). And even when not regulated at the regional level, a high level of homogeneity exists in the types of restrictions found in other professional services sectors (e.g., architecture or engineering).

The European Union is another example of the establishment of common rules or directives for services sectors among the member states, which result in more homogeneous MFN policy restrictiveness, such as in the area of transport (e.g., road package) or financial services (e.g., banking and finance directives).¹⁷ In addition, the EU introduced common MFN policies in the form of directives or regulations, e.g., EU Foreign Direct Investment Directive or the General Data Protection Regulation – GDPR.

¹⁷ For insurance services, Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance establishes that EEA (encompassing the EU) insurers may provide cross-border services into other EEA countries, i.e. meaning that in principle non-EEA countries can provide such services by establishing a commercial presence in an EEA party, unless the national law explicitly lifts this requirement for the supply of services in that country. This directive aiming at establishing a preferential regime, implies the application of MFN restrictions for non-EEA parties. For road transport, Regulation (EC) No. 1072/2009 of the European Parliament and of the Council of 21 October 2009 on common rules for access to the international road haulage market, establishes that cross-border road transport between and cabotage within the EEA member states can only be provided by foreign suppliers with an establishment in a member state, i.e. on an MFN basis there is a commercial presence requirement for non-EEA parties to conduct international road transport between and within the EEA member states.

Figure 3.3. STRIs by Economic Groupings and Selected Broad Sectors, 2019-22



The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the East African Community (EAC) parties also present a relatively lower level of dispersion in the STRIs, probably due to the will to converge on certain policies; in particular, to support the integration of global value chains among them. In contrast, we identify relatively large dispersion due to more heterogeneous policies across the parties to the Regional Comprehensive Economic Partnership (RCEP). Policy variation may in these two cases be reflecting the significant disparity between their members, in terms of size, level of economic development and policy objectives.

3.3 Services Trade Policy Restrictiveness and Economic Characteristics

We confirm and extend the aforementioned stylized facts on global policy restrictiveness using an analytical approach whereby we regress STRI scores on relevant country characteristics to establish whether the policy regimes are significantly correlated with relevant features such as stage of development, as discussed above. Two main insights emerge. Firstly, as was evident from Table 3.1, higher levels of income per capita are broadly associated with more openness: a 10% increase in income per capita is associated with a reduction in STRI by nearly 5 index points (negative coefficient in column 1); note that the sample average STRI across all broad sectors is 46. Yet as column 2 shows, the relationship is

not necessarily linear: low-income economies are 2.4 index points more restrictive compared to high-income economies on average across all 9 broad sectors, but lower-middle income economies are even more restrictive than high-income countries (by 3.8 index points). These differences are conditional on sector fixed effects and as such take into account that lower income economies may exhibit a different economic structure compared to high-income economies. Upper-middle income economies, i.e. those closest in stage of development to the reference group of high-income economies, are only marginally more restrictive and that difference is not statistically significant.

Secondly, countries with a higher share of industrial value added in GDP are on average more restrictive towards services trade (column 3), whereas economies with a higher share of services value added are more open (column 4).¹⁸ Both effects are highly significant. It is well known that more advanced economies exhibit a higher share of services value added in GDP as a result of structural transformation, and that the shares of industry and services in GDP tend to move in opposite directions especially for high-income economies. Against that backdrop, the opposite signs of the share coefficients in columns 3 and 4 are not surprising, and to some extent they reflect the generally lower STRI scores of high and upper-middle income economies.

That said, the relationship between policy restrictiveness towards incoming services and industrial value added is potentially concerning (column 3). From the perspective of value chain trade, the production of industrial goods requires a range of services inputs, which could be imported, and subsequently a share of this industrial output will be exported. Both steps require the import of an array of services, from finance and communications to transport, and a more restrictive stance towards such services imports may hamper an economy to reach its full potential in terms of industrial production and trade. We also notice that the negative coefficient for the industrial value added (VA) share in column 3 is more than three times as large as the coefficient for the services share in column 4, thus reinforcing the concern that the production and export of industrial goods may be adversely affected by restrictive services trade policies.

¹⁸ The variation in shares of agricultural value added in GDP is not significantly related to services trade policies (coefficient: -0.0007).

Table 3.2: Sectoral Restrictiveness and Economic Characteristics

Dependent variable: country-sector STRI scores				
	(1)	(2)	(3)	(4)
Log GDP per capita	-0.4899**			
Low-income Group		2.4223**	2.3103**	-1.0902
Lower-middle income Group		3.7678***	2.2395**	1.7546
Upper-middle income Group		0.6950	-0.7708	-0.4811
Industrial VA Share in GDP			0.4037***	
Services VA Share in GDP				-0.1212***
Sector Fixed Effects	Yes	Yes	Yes	Yes
Observations	1,179	1,206	1,170	1,170
R-squared (adj)	0.1315	0.1406	0.1955	0.1425

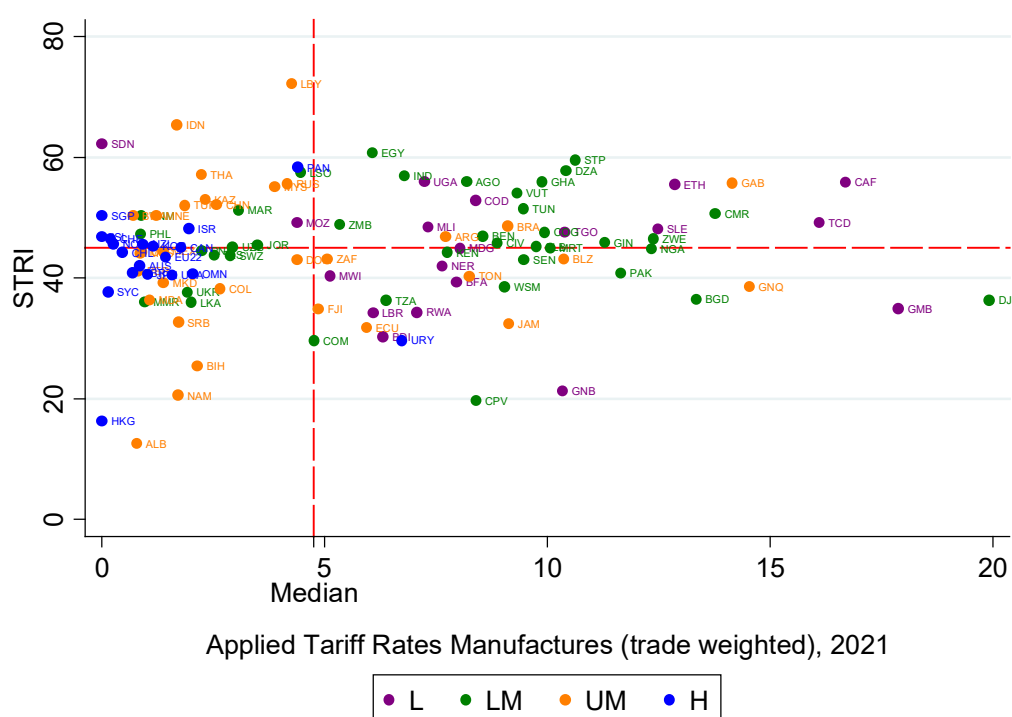
Notes: All models include a constant but coefficient not reported.

Significance levels: * = $p < 0.1$, ** = $p < 0.05$, *** = $p < 0.01$.

3.4 Services Trade Policy and Goods Trade Openness

It is also interesting to see how services trade policy compares to goods trade openness. The latter is measured by average applied tariffs on manufactured goods. Most high-income economies (blue dots) present relatively open policies for both services and manufactured goods (Figure 3.4), with the exception of Uruguay, which appears to be more liberal for services than it is for goods as compared to other high-income economies. At the other end of the development spectrum, low-income economies (purple dots) tend to maintain important barriers to trade in goods combined with either relatively open or restrictive services policies. There is more variation among middle-income economies. While a number of upper-middle income economies (orange dots) show openness in both goods and services (e.g., Albania, Namibia), many of them are more restrictive in services (e.g., Indonesia, Thailand, Türkiye). Lower-middle income economies (green dots) tend to be more restrictive for goods alongside important impediments for services, with some maintaining high barriers for both types of products (including small island economies such as São Tomé and Príncipe and Vanuatu, respectively, which would seem particularly dependent on trade in both goods and services).

Figure 3.4: Services trade and goods trade policies, 2019-22



Note: Value-added (VA) weighted shares of broad sector STRIs are used to arrive at an approximate measure of overall services trade restrictiveness that is commensurate to a weighted average of goods trade policy. Average 2022 STRIs used for 22 EU member states. For economies for which 2021 tariff data is not available, the most recent years are used: JOR, WSM (2020); EGY, GAB, STP, CMR (2019); MEX (2018); CAF (2017); TCD, TUN (2016); COG (2015); DJI (2014); GNQ (2007). No tariff data is available for CHT, ESH, SOM and SSD. Trade weighted applied tariff rates are sourced from the World Development Indicators by the World Bank. Note that both indicators are not directly comparable, because the VA weighted STRI adjusts for the structure of the economy, not (services) trade flows. A VA weighted STRI is a preferred measure of the overall restrictiveness of services trade policies, since trade in services statistics do not cover mode 3, which is generally the largest mode of supply in value terms.

3.5 Policy Restrictiveness across Modes of Supply

The possibility of exchanging services internationally through different modes of supply is one of the most fundamental differences between goods trade and services trade. Accordingly, services policy restrictiveness also varies by mode, both within and across subsectors. While many rationales can explain such variability, it is primarily linked to regulatory concerns and policy considerations that differ for every sector and each mode of supply. Not surprisingly, cross-border supply of services (mode 1) is on average more restricted than the supply through commercial presence (mode 3) or the temporary presence of natural persons (mode 4).¹⁹

¹⁹ Note that, except for professional services and health services, policies captured in mode 4 are horizontal. They cover measures affecting the movement and presence of contractual service suppliers, independent professionals/self-employed persons and intra-corporate transferees.

The relatively high average policy restrictiveness in regard of cross-border supply (average STRI of 60) is accompanied by substantial variation across subsectors (Figure 3.5). For the sake of analysis, we can distinguish three groups of sectors in terms of restrictiveness. The first group is composed of those services for which restrictiveness of cross-border supply is well above average, namely banking, direct insurance,²⁰ accounting, auditing, telecom services, and television services. Regulators in these sectors prefer the onsite provision of services, most likely for reasons related to regulatory oversight and consumer protection. For instance, in direct insurance, about 100 economies have policies requiring companies to establish either a full-fledged company (thereby essentially rendering cross-border supply impossible) or a lighter form of commercial presence (typically a branch) in the host economy to provide services. Similar requirements apply to about half of the economies in accounting, auditing, telecom, and television, and to roughly two-thirds in banking. International air passenger transport services often occur in the context of bilateral inter-governmental agreements, often preventing the supply of these services on an MFN basis.

The second group entails subsectors for which the restrictiveness of policies is situated around the average, namely reinsurance, architecture, engineering, legal services (home country law), postal/courier services, rail transport, road transport, health and travel agencies and tour operator services. Policies that apply across-the-board (hereafter referred to as 'horizontal' policies) usually drive restrictiveness in this case. Particularly for the aforementioned subsectors, horizontal data policies affect the level of restrictiveness. They are frequently coupled with sector-specific restrictions, such as the requirement to partner with a local professional in architecture and engineering, the need to demonstrate the unavailability of services in reinsurance, or a discretionary authorization regime in road transport. The number of economies with MFN policies that imply a complete closure to cross-border supply, or the requirement to establish a commercial presence, ranges between 27 in health services and 47 in road transport, whereby in the latter, entry is often only possible under bilateral agreements. In the case of health-related services, technological advancements and digitalization have been driving the development of cross-border supply in a sector where it had traditionally been considered that all services (from diagnosis to treatment to analysis) could only be supplied in-person. In that regard, insufficient regulatory development (combined with the technological feasibility) may also be explaining the relative openness registered in this sector.²¹

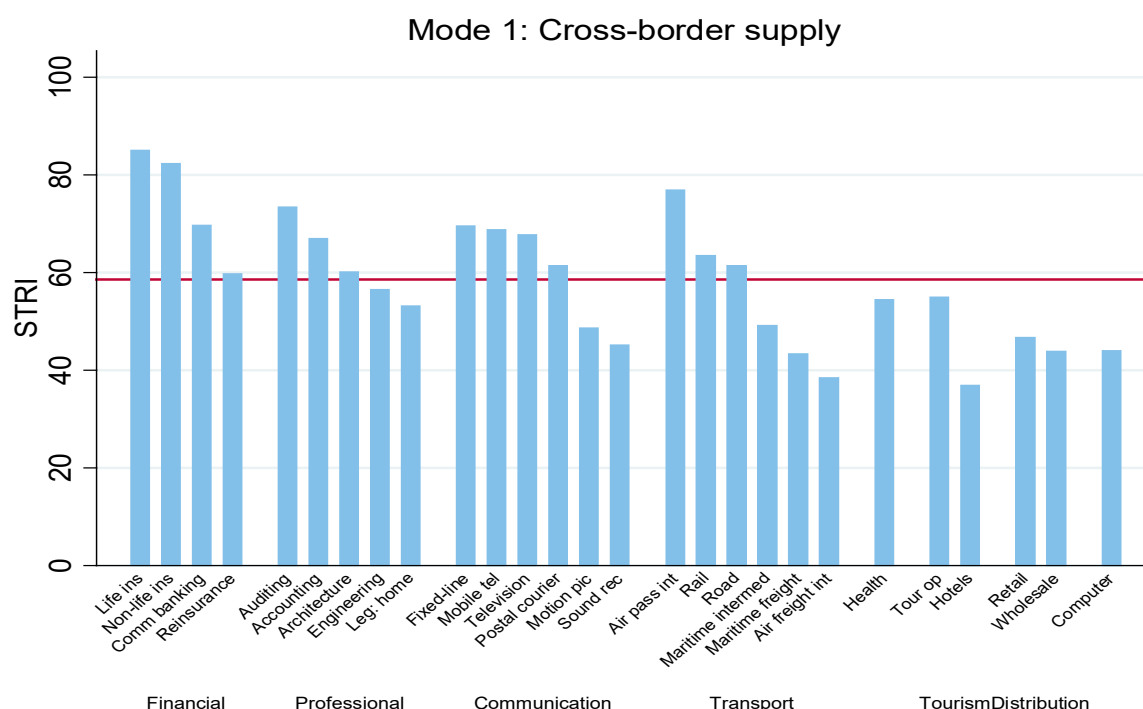
The final group is composed of those services for which restrictiveness of policies towards cross-border supply is well below the overall sector average, although it is still substantive as

²⁰ 'Direct insurance' includes both life and non-life insurance services.

²¹ In the absence of a prohibition, we err towards openness, in particular where technology renders the cross-border supply of services feasible.

these subsectors' average STRI scores rarely fall below a level of 40. This group comprises services sectors such as motion picture, sound recording, maritime intermediation, maritime auxiliary services, hotel services,²² distribution, and computer related services. Here again, horizontal data policies usually drive restrictiveness, albeit within the framework of otherwise less restricted polices (e.g., maritime transport and distribution, which reflect generally open policy and regulatory frameworks).

Figure 3.5. Mode 1 STRIs across Subsectors, 2019-22



Note: The Mode 1 STRI for Hotels includes restrictions on franchising and cross-border data flows. The Mode 1 STRI for International Air Transport is based on the latest WTO's traffic-weighted Air Liberalization Index (WALI) which measures the openness of bilateral Air Services Agreements (ASAs) in force in 2011.

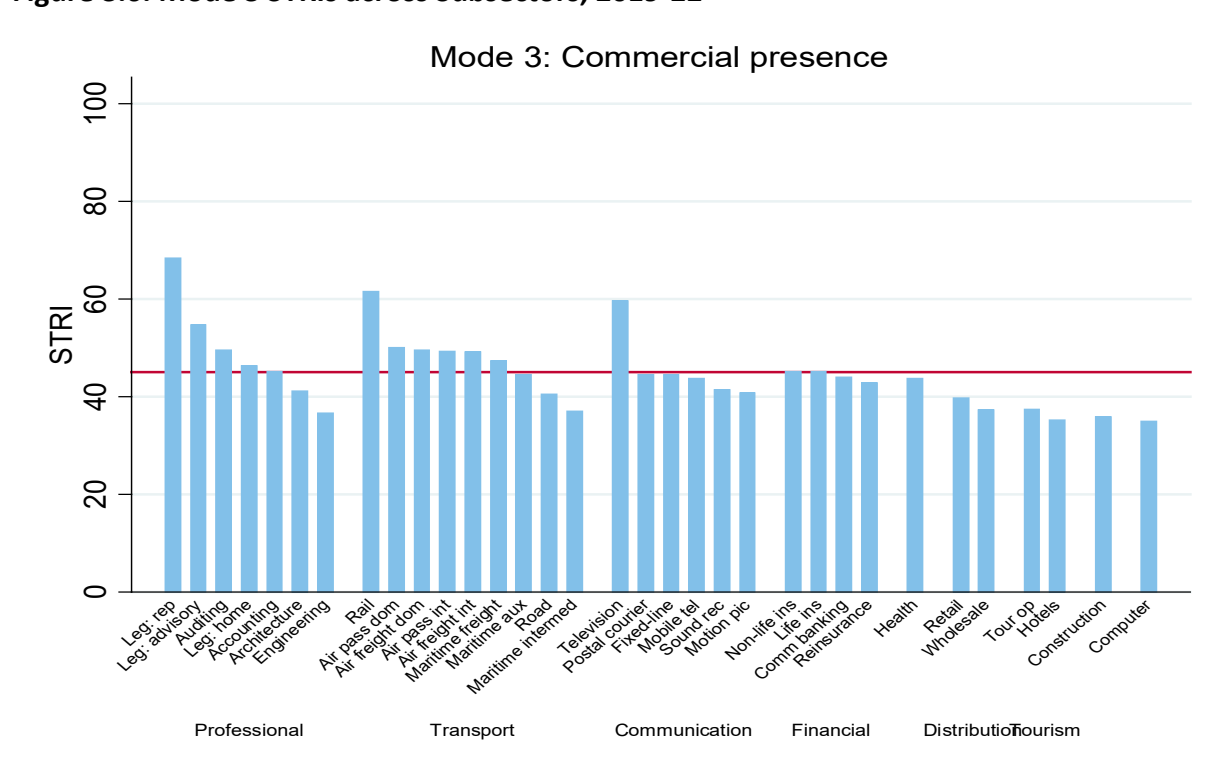
Services trade through commercial presence (mode 3) is on average more open than cross-border supply (mode 1), with an average STRI below 50 (Figure 3.6). Restrictiveness for mode 3 is often driven by foreign equity limits, restrictions on the legal form of entry, or quantitative restrictions (including economic needs tests). The introduction of foreign direct investment screening mechanisms may increasingly act as new barriers to entry of foreign suppliers, particularly in high-income economies.

For mode 3, there is also much less variation across services subsectors, with most STRIs falling between 40 and 50. There are only three subsectors in which the STRI is significantly above the average, namely legal representation services on host country law, television, and

²² Referring to restrictions on franchising and data flows.

rail freight transport services. In many jurisdictions, public order considerations entail that only locally licensed lawyers can become shareholders in a law firm or open their own practice to supply representation services, and the requirements to become locally licensed can be very stringent, such as nationality or residence requirements. The supply of television services is often restricted by foreign equity limits, economic needs tests, or quotas on broadcasting time, notably to promote national or regional culture. Finally, the existence of de jure or de facto monopolies in rail freight motivated by challenges in opening up physical infrastructure explains the high average score for the subsector (in particular in Africa where this is the case in 25 countries).

Figure 3.6. Mode 3 STRIs across Subsectors, 2019-22

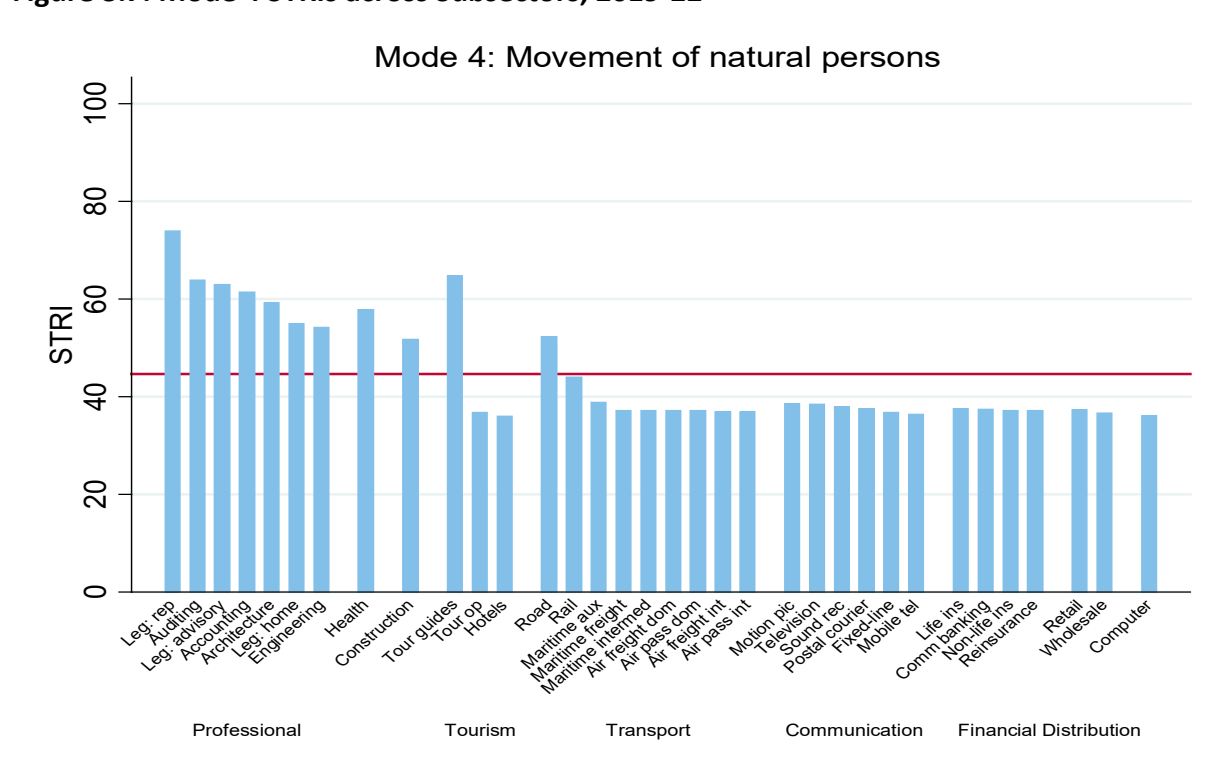


The level of restrictiveness of services trade policies concerning mode 4 is, on average, similar to that of policies affecting commercial presence, and therefore lower than policies applicable to cross-border supply. This contrasts with the perceived restrictiveness of this mode of supply, particularly when considering the levels of commitments in trade agreements which are quite restrictive. In many trade agreements, parties only make commitments for business visitors²³ and intra-corporate transferees (ICTs), the latter often being associated with quantitative restrictions in the form of labor market tests. Although these restrictions are applied in their current regime, economies may allow other categories of foreign persons to enter their markets, for which they did not make binding commitments, such as for contractual service suppliers and independent professionals. For these latter categories, the regime is typically open, often without labor market tests that are required for ICTs.

²³ Persons entering a jurisdiction to negotiate the supply of services or the establishment of commercial presence. This category of natural persons is not used to measure restrictiveness.

Mode 4 also exhibits the lowest variation in STRIs across sectors, compared to other modes, largely reflecting quotas or labor market tests that apply across-the-board within an economy. The most restricted subsectors are professional services (including for accountants, lawyers, health professionals) and tourist guides where the entry and stay of natural persons is typically governed by sector-specific legislation. In those subsectors many jurisdictions impose nationality and/or residence requirements to be able to practice. Recognition of foreign education also plays a role in restrictiveness. Road freight services are appreciably more restrictive in mode 4 compared to other transport subsectors, reflecting limitations on visas and a lack of recognition of foreign driving licenses.

Figure 3.7. Mode 4 STRIs across Subsectors, 2019-22



Understanding the different regulatory settings and policies across modes of supply is also the key to unpacking the moderate level of policy restrictiveness in health-related services, which may seem surprising given the nature of these services. They are fundamental to society and considered to be a basic human right, thus traditionally rendering them highly regulated to ensure a high-quality standard and universal access. The sector's comparatively low level of policy restrictiveness arises from the relative importance of the different modes of supply for trade in healthcare services, and how they are factored into the overall STRI computation. Specifically, the most stringent restrictions typically apply to the practice of health professionals (medical doctors, nurses, etc.) and as such are primarily captured under Mode 4 measures. Indeed, the median mode 4 STRI is approximately 58, thus at a level comparable to other professional services. However, mode 4 "only" accounts for 20% of the overall score comprising all modes of supply, with modes 1 (STRI of 55), 2 (24) and 3 (44) accounting for 10%, 20% and 50%, respectively. Regarding the latter score, and

notwithstanding some regulatory scrutiny to ensure the quality of the service and safety of patients, there are not many entry and operational restrictions for private hospitals with foreign capital (mode 3).²⁴ Mode 2 is usually very liberal (patients/consumers going abroad to receive treatment). Finally, mode 1 (essentially cross-border telehealth services, i.e. either practitioner-to-patient or practitioner-to-practitioner) is rather restrictive but not as restrictive as one may perhaps expect. This is because cross-border telehealth is often poorly regulated or not regulated at all. The typical restrictions affecting telehealth do not relate directly to the actual regulation of such cross-border activities, i.e. outright prohibitions or limits on the scope of services that can be provided are rarely encountered. Typical policies affecting the supply of cross-border telehealth cover local presence or nationality requirements to deliver health services in the jurisdiction of patients/consumers, or restrictions on the cross-border transfer of health data.

Lastly, the tourism sector (which includes hotel services, travel agencies and tour operator services, and tour guide services) appears more restricted than one would expect. This is mainly driven by the conditions to exercise the profession of tourist guides. In many instances, only citizens or permanent residents can obtain a license to be tourist guides. Consequently, the median STRI for tourist guides is approximately 59, which is much higher than for hotel services (37) and travel agencies and tour operators (40). Although the subsector is overall moderately restrictive, it is important to note that the supply of services through Mode 1 for travel agencies is also quite restrictive, with complete closures, or the requirement to establish a commercial presence or use the service of a resident intermediary to be allowed to supply such services.

Although it is less restrictive, hotel services are often restricted by limits on the scope of service. For example, some tourist facilities such as guest houses, camp and caravan sites are reserved for citizens or companies wholly owned by citizens. There are also nationality and residency requirements, such as on the board of directors where all or the majority must have a domicile in the country, or nationality requirements on managers of commercial establishments, or restrictions related to the share of employees in commercial establishments, requiring them to be nationals.

Restrictions on tourism services are higher in low and lower-middle income countries than in both high-income and upper middle-income countries. This may be motivated by policies protecting nascent and growing tourism industries from international competition and supporting local businesses. Additionally, tourism is a key source of employment, making the protection of local jobs a priority for these economies.

²⁴ The STRI is mainly driven by market entry and discriminatory policies affecting foreign service suppliers. This is applied to all STRI sectors to ensure comparability and avoid value judgements when it comes to analyzing the STRI. Regulatory measures to meet national policy objectives, such as ensuring the quality of health services or equity in access to essential health services are not covered by the STRI.

4 SHIFTS IN SERVICES TRADE POLICY STANCE 2016 – 2022 (69 ECONOMIES)

4.1 Global Trends in Services Trade Policy over the Past 6 Years

A substantial part of the 134 economies currently in the STPD is being covered for the first time, in particular most African economies. Whereas their policies cannot be compared with earlier years, there are 69 economies for which policies have been captured at two points in time: in 2016 and in 2022.²⁵ This section discusses the observed change in services trade policies for these 69 economies over the 2016-22 period, i.e. before and after the Covid-19 pandemic. Since sectoral coverage was more limited in the 2016 data than in the 2022 version, this analysis focuses on 5 broad sectors – distribution, financial, professional, telecom and transport – and their constituent subsectors (see Section 2 for improvements to coverage and methodology).

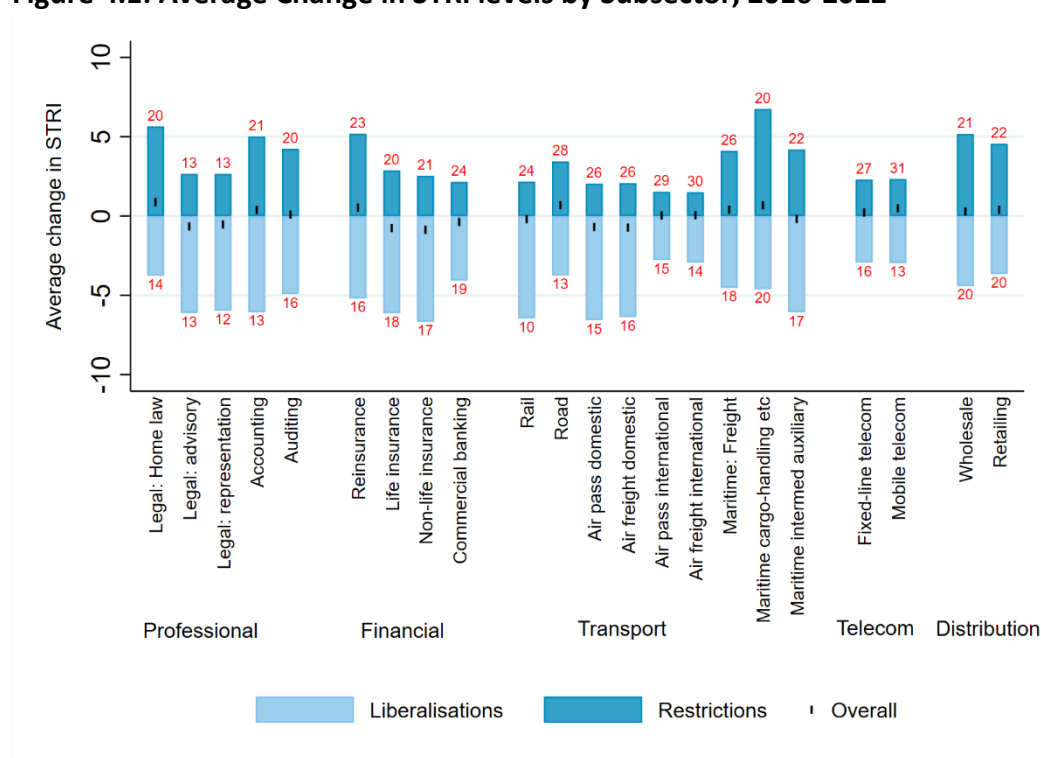
A close look at developments at the subsector level sheds interesting light on the direction and extent of policy changes. Figure 4.1 shows the average change in the STRI by subsector between 2016 and 2022. The blue bars above and below the ‘zero change’ horizontal line indicate the average change in STRI across those economies that have liberalized their policy stance (light blue facing downwards) and those that have become more restrictive (dark blue facing upwards), within a given services subsector. The numbers in red font above and underneath these bars indicate the number of economies that have changed their policies in the respective direction. The short vertical black pipes illustrate the overall average change across the 69 economies within each subsector, which encompass those represented in the light and dark blue bars but also those economies that have not changed their policies between 2016 and 2022.

Many economies in the sample (between half and two-thirds depending on the subsector) have introduced changes in their services trade policies, both changes to liberalize as well as changes to restrict, which tend to offset each other if viewed at an aggregate level. Yet at the subsector level, for the 69 economies considered, the placement of the black pipe in Figure 4.1 shows that policies have become slightly more restrictive in legal home law, accounting and auditing, reinsurance, road and rail transport, maritime freight, maritime cargo handling, telecommunications and distribution (both retail and wholesale). Conversely, the following subsectors have become slightly more open: legal host law services, direct insurance, banking, air transport, maritime intermediation services. The levels of openness remained virtually unchanged for international air transport.

²⁵ Using the World Bank’s 2022 income per capita brackets, 40 of these economies are high-income, 16 upper-middle income and 13 lower-middle income.

By a simple count measure, we observe that the number of economies becoming more restrictive (the red number atop the upper bars in Figure 4.1) exceeds the number of those that became more open (the number underneath the lower bars) in each subsector. At the same time, the extent of liberalization has been more pronounced. Indeed, for all subsectors except legal home law, maritime cargo handling, and distribution, the effect of policy changes on the average STRI of the 'liberalizing' economies outweighs the effect on the average STRI of the 'restricting' economies. For example, in the case of non-life insurance, the average STRI across the 21 economies with more restrictive policies increased by almost 3 points (on a scale of 0 to 100) whereas the average STRI across the 17 liberalizing economies decreased by more than 6 points. Yet because 31 economies did not alter their policy stance in non-life insurance, the overall change in this sector's policy restrictiveness (indicated by black pipes) remains muted.

Figure 4.1: Average Change in STRI levels by Subsector, 2016-2022

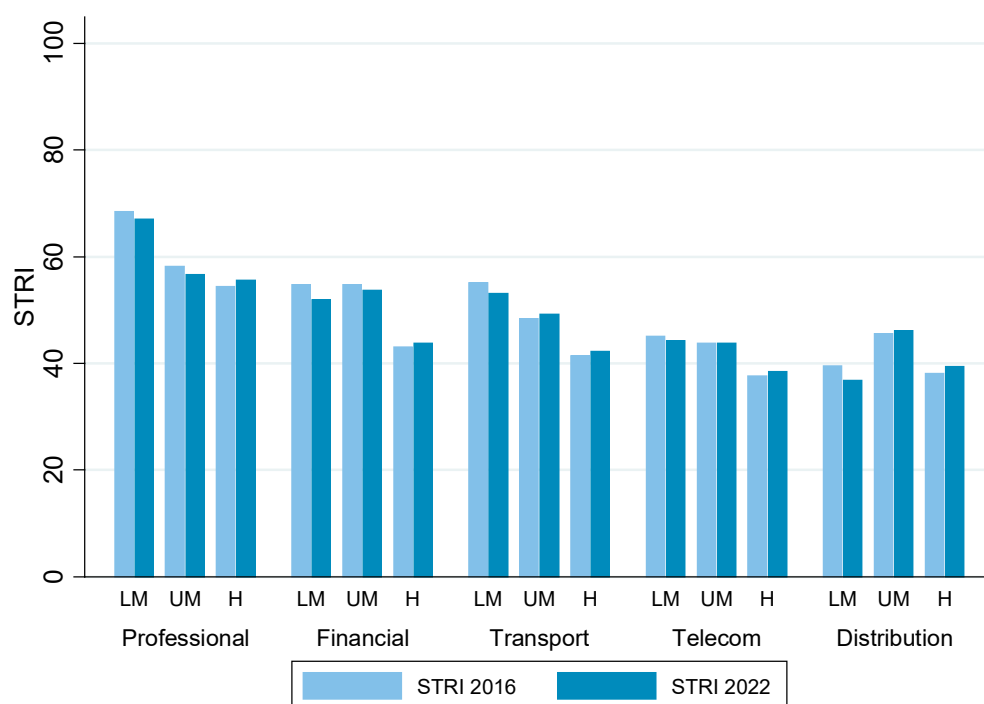


Note: Red figures above and below the bars indicate the number of economies that are subject to liberalizations and restrictions for each subsector, respectively.

From a global perspective, the shift in services trade policy between 2016 and 2022 is mainly a developing country story, and the distinct trend has been towards liberalization in these economies (as shown in Figure 4.2). Lower-middle income economies have generally liberalized their policies in all broad sectors and in some specific subsectors by a sizeable margin, e.g., in commercial banking, legal, and maritime transport services. With very few exceptions – most of them with significant overall impact on the average level of protection

– policy changes in lower-middle income countries have tended towards further liberalization, such as in Myanmar, Nigeria, Tunisia, or the Philippines.

Figure 4.2: Comparison of STRIs by Broad Sector and Income Group, 2016-2022



In contrast, more advanced economies have tended towards more restrictiveness (e.g., Luxembourg, Panama, Singapore). However, the order of magnitude of both policy developments is different, as the average change in STRI levels in developing countries—mostly liberalizing—exceeds the average change in STRI levels in advanced economies, which are predominantly becoming more restrictive. Indeed, in most cases (14 out of 24 subsectors), the increase in the average STRI for the high-income economies is lower than 1 index point (on a scale from 0 to 100).²⁶

At the outset in 2016, relatively poorer economies tended to exhibit more restrictive services trade policies compared to high-income economies (see Figure 4.2), especially in sectors that are usually heavily regulated such as telecommunications, finance, professional, and transport services. This starting point of more restrictive policies in developing economies echoes a long-standing stylized fact of cross-country services policy restrictiveness (see Borchert et al. 2020, Figure 3 and Borchert et al. 2014, Figure 4).

²⁶ The income groups refer to the income per capita brackets as of 2022 (see Annex 1).

Recent developments have challenged the conventional wisdom, as vigorous liberalization of services trade policies by lower-middle income countries, and to a much lesser extent in upper middle-income economies, combined with movements towards more restrictiveness in high-income and upper middle-income economies, are leading to a global convergence of services trade policies. Yet the two groups of economies are not necessarily converging at the lower end of policy stances (Table 4.1). More liberal sectoral policies introduced in lower-income economies reduce the gap with pre-existing policies in the same subsectors in richer economies. At the same time, the tightening of services trade policies by more advanced economies in many service sectors also reduces the gap because it brings them closer to the more restrictive stance of developing countries.

Table 4.1: Change in STRI levels by Subsector and Income Group, 2016-2022

Broad Sector	Subsector	Income Group		
		Lower Mid	Upper Mid	High
Financial	Non-life insurance	-5.75	-0.56	0.59
	Life insurance	-5.39	-0.52	0.64
	Commercial banking	-2.56	-1.32	0.71
	Reinsurance	-0.80	0.78	0.85
Distribution	Retailing	-2.72	0.98	1.16
	Wholesale	-2.56	0.06	1.31
Transport	Maritime intermed auxiliary	-4.90	0.84	1.16
	Maritime cargo-handling etc	-4.67	1.55	2.31
	Rail	-3.30	0.59	0.62
	Air freight domestic	-2.01	-1.48	0.04
	Air pass domestic	-1.76	-1.52	0.05
	Air pass international	-0.82	-0.30	0.45
	Air freight international	-0.77	-0.25	0.44
	Road	-0.66	0.53	1.18
	Maritime: Freight	0.89	1.09	-0.11
Professional	Accounting	-2.53	-0.80	1.80
	Auditing	-2.10	-0.72	1.12
	Legal: advisory	-1.26	-3.11	0.53
	Legal: representation	-0.36	-3.34	0.53
	Legal: Home law	0.09	-0.79	1.79
Telecom	Fixed-line telecom	-1.48	-0.03	0.86
	Mobile telecom	-0.09	0.22	0.78

Colour coding: dark green<-5; light green: (-5, -1); grey: (-1, 1); light orange: (1,5).

Grey shading indicates that policy restrictiveness has remained qualitatively unchanged.

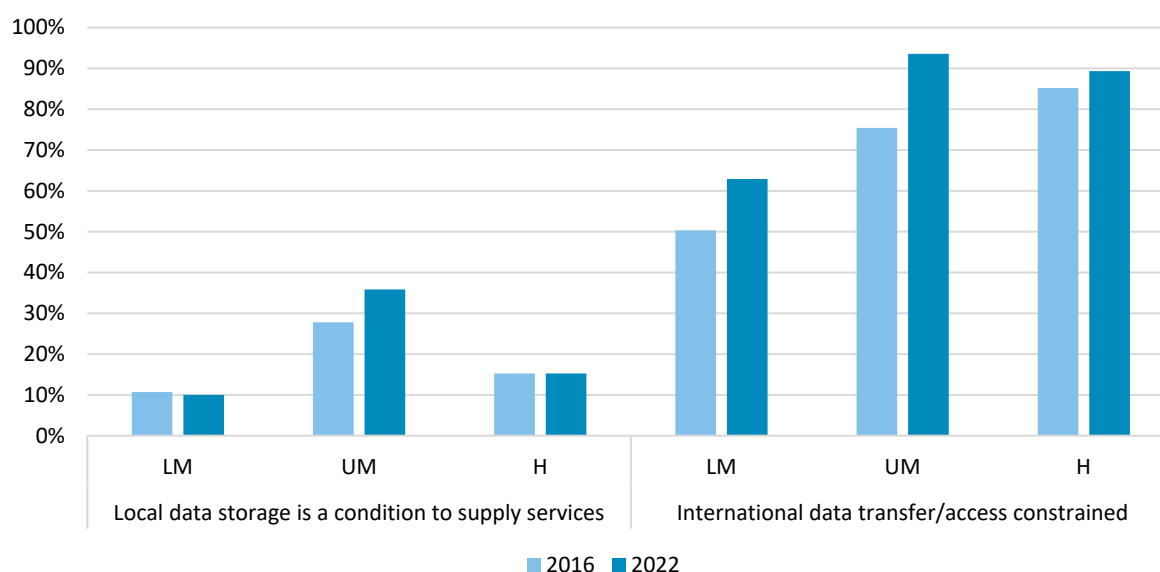
Note: Negative changes indicate that the subsector STRIs have decreased on average. Positive changes indicate that the subsector STRIs have increased on average.

There is a global trend underlying the convergence in restrictiveness between developing and developed economies, namely an increase in restrictiveness across all income groups for

cross-border data flows (Figure 4.3).²⁷ By contrast, measures affecting investment flows (in particular, FDI screening) and the movement of natural persons, respectively, show an increase in restrictiveness for high-income economies and a decrease (or a status quo) in middle-income economies. (Figures 4.4 and 4.5).

The increased restrictiveness in horizontal cross-border data flow policies has affected Mode 1 STRI scores across all subsectors and income groups (Figure 4.3). In 2016, many high-income economies were already constraining international data transfers and access, with many sectors subject to limitations; in 2022, nearly 90% of them impose such restrictions. Interestingly, middle-income economies, which previously had fewer such data policies in place, are now rapidly adopting similar restrictions on the cross-border flow of data. This trend therefore suggests a move towards adoption and greater alignment of stringent cross-border data policies in upper-middle and lower-middle income economies.²⁸

Figure 4.3: Incidence of Cross-Border Data Flow Restrictions, by Income Group (% of Economy-Subsector Observations)



Note: Local data storage requires a foreign supplier to store data on servers physically in the country, rather than transferring it to its origin or a third country. Constraints on international data transfer/access capture restrictions beyond local establishment or data localization requirements. These may include security assessments, authorizations, prohibitions on transferring (certain types of) data, guaranteeing a similar level of protection, or other measures involving discretion in defining jurisdictions to which transfers are permitted.

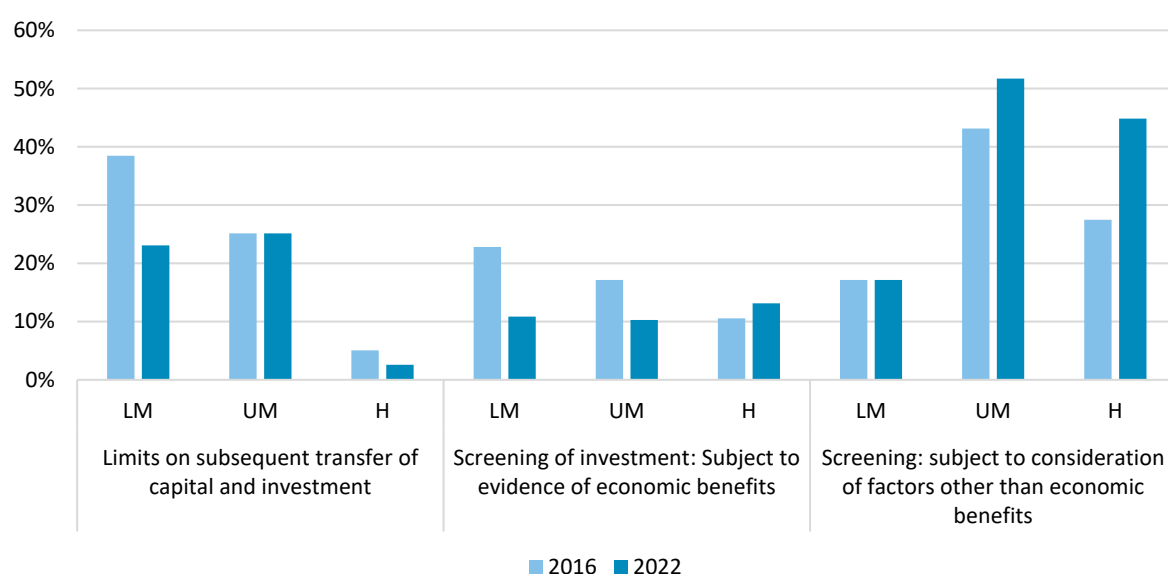
Regarding investment measures that impact Mode 3 STRI scores across all subsectors, distinct observations can be made across the different income groups based on Figure 4.4. Lower-middle income economies have either substantially liberalized their policies – likely aiming to

²⁷ The STRI scores associated with this group of measures affecting cross-border data flows apply horizontally across all sectors.

²⁸ We are not passing judgement on the appropriateness of these policies for the protection of policy objectives such as data privacy – it is simply a statement of fact.

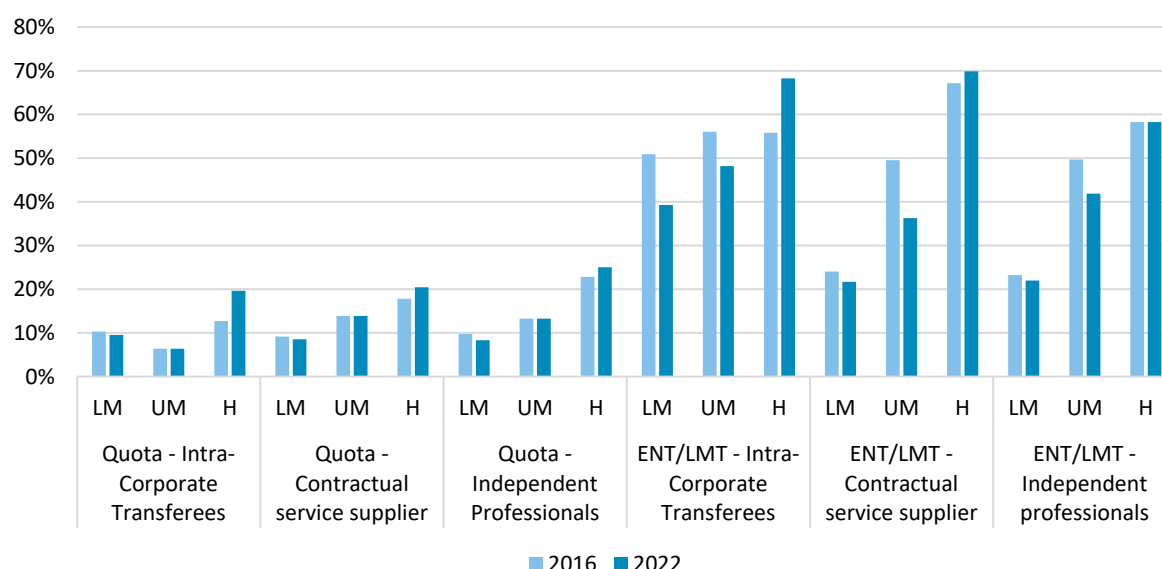
attract more foreign direct investments – or maintained the *status quo*. By contrast, high-income economies have introduced substantial screening measures, indicating a more restrictive approach towards foreign investment motivated to a large extent by geopolitical concerns. Meanwhile, upper-middle income economies have shifted from screening measures based on economic benefits to considerations beyond mere economic gains, such as environmental and national security concerns.

Figure 4.4: Incidence of Investment Measures, by Income Group (% of Economy-Subsector Observations)



Lastly, changes in quantitative restrictions on the movement of natural persons, which apply horizontally across all sectors, also contribute to the STRI convergence trend as seen in Figure 4.5. Middle-income economies have generally maintained or reduced quotas and labor market tests for foreign workers, whereas high-income economies have significantly increased restrictions, with nearly 70% implementing labor market tests for the entry of intra-corporate transferees and contractual service suppliers by 2022.

Figure 4.5: Incidence of restrictions on the Movement of Natural Persons, by Income Group (% of Economy-Subsector Observations)



4.2 Comparison to 2008-16: The Tide Has Turned

This latest shift in global services trade policies contrasts starkly with the preceding change over the 2008-16 period, during which all broad sectors experienced a liberalization of policy stance across all income groups, albeit to varying extents (see Borchert et al. 2020, Table 2). During that period, telecommunications, professional, and transport services sectors were liberalized by economies at all development levels as shown in Table 4.3. Low-income economies, in particular, engaged in considerable opening of policies in telecommunications and financial services, bringing them closer to the openness observed in high-income economies, which had already liberalized these backbone sectors in the 1990s.

Higher-income economies, in turn, focused mainly on the liberalization of professional services and transportation during the 2008-16 period, especially in rail and road transport. Overall, by 2016, the picture was one of policy *convergence* in telecommunications and finance, driven by liberalization in previously more restrictive economies, and one of policy *divergence* in transport and professional services, driven by reforms in advanced economies.

In 2022, however, the shift in services trade policy primarily reflects trends in developing countries, which have generally moved towards liberalization. In contrast, more advanced economies have seen a relative stabilization of their policies or even a retraction from openness as in the case of investment screening and new quantitative restrictions on the movement of people. The vigorous liberalization of services trade policies by lower-middle income countries, and to a much lesser extent in upper middle-income economies, combined with movements towards more restrictiveness in high-income and upper-middle-income economies, are leading to a global convergence of services trade policies.

Table 4.3: Change in STRI levels by Broad Sector and Income Group²⁹**Panel A: Change in STRIs by Broad Sector and Income Group, 2008-2016**

Broad Sector	Income Group			
	Low	Lower Mid	Upper Mid	High
Distribution	-1.69	-4.45	0.24	-2.78
Financial	-6.42	-3.84	-0.90	-0.02
Telecom	-10.05	-1.68	-1.36	-3.21
Professional	-1.89	-6.31	-5.14	-8.06
Transport	-1.76	-7.87	-3.07	-22.37

Panel B: Change in STRIs by Broad Sector and Income Group, 2016-2022

Broad Sector	Income Group		
	Lower Mid	Upper Mid	High
Financial	-2.84	-1.09	0.71
Distribution	-2.65	0.55	1.23
Transport	-2.02	0.78	0.92
Professional	-1.42	-1.59	1.20
Telecom	-0.78	0.09	0.82

Colour coding: dark green<-5; light green: (-5, -1); grey: (-1, 1); light orange: (1,5).

Grey shading indicates that policy restrictiveness has remained qualitatively unchanged.

In 2016, the patterns of overall liberalization arose from differences in *sectoral* liberalization. Beginning in the 1990s, high-income economies spearheaded the liberalization of telecommunications, finance, and distribution sectors, leading to their relative openness by 2008. By 2016, middle- and low-income economies had followed suit, resulting in policy convergence in telecommunications and finance driven by reforms in previously more restrictive economies. In transport and professional services, liberalization was particularly significant among high-income economies where protection had hitherto been deeply entrenched. The transport sector, especially rail and road transport, saw notable liberalization by high-income economies. As a result, these sectors presented a picture of policy divergence driven by reform in advanced economies. By contrast, in 2022, liberalization has still been driven by sector-specific considerations but the new increase in policy restrictiveness across all income groups is driven in good part by measures that apply horizontally to all sectors, such as cross-border data flow restrictions and investment screening mechanisms, rather than sector-specific initiatives or interventions.

In conclusion, the global landscape of services trade policies has undergone significant transformation between 2016 and 2022. The marked shift towards liberalization in

²⁹ The 2008-16 comparison uses comparable services trade policy data for a subset of 55 economies. The 2016-22 comparison uses a subset of 69 economies. However, the economies included in the 2008-16 comparison differ from those in the 2016-22 comparison, i.e., the comparison over both time periods does not occur for the same set of economies.

developing economies contrasts with the stabilization or increased restrictiveness observed in advanced economies. While the 2008-16 period was characterized by sector-specific liberalization across different income groups, recent trends reveal a more complex interplay of global policy changes influenced by broad-based regulatory measures, partly related to data flows and FDI screening. This evolving dynamic highlights the importance of understanding both sectoral and cross-sectoral policy impacts to navigate and respond to the shifting terrain of international trade in services.

5 POTENTIAL USES OF THE STRI

5.1 STRI to Inform Policy Making

The STRI, and the accompanying STPD regulatory data are critical to inform services policy making, national public/private dialogue, trade negotiations, implementation of international agreements, research and for services exporters. Designing effective public policies, including for trade in services, requires informed decision-making. Unlike trade in goods, where policy makers for many years have had easy access to various data sources to assess the openness of their economies and potential export markets, detailed and up-to-date information on services for 34 sectors (covering two-thirds of the services economy) and a large number of low- and middle-income economies (22 and 70, respectively) was not available until recently.³⁰

When it comes to policy making, the STRI and the STPD are complementary tools. In its own terms, the STRI provides a *prima facie* indication of the level of restrictiveness of an economy's services trade policy and regulation in different sectors, and for different sector/mode combinations. It also allows for comparison and benchmarking of service trade restrictions among economies within and across regions and income levels. This analysis helps assess the relative position of an economy, which is vital for trade policy making. As such, the index may help governments prioritize sectoral and modal policy and regulatory reform.

The ability of assessing the level of restrictiveness affecting various services sectors and subsectors through the STRI enables stakeholders to gauge the degree of contestability within domestic services markets and the extent of openness of the host economy to foreign services and service suppliers—a critical factor for developing countries needing economic diversification, technology transfer, and job creation.

Reform requires policy makers to delve into the STRI components with a view to identifying those policies and regulations that drive restrictiveness. Barriers to trade in services are embedded in domestic laws and regulations, which typically pursue legitimate public policy objectives. Liberalization of trade in services is not about de-regulating or eliminating those legitimate regulatory frameworks. Instead, liberalization involves identifying and addressing the elements within services regulatory frameworks that may unnecessarily distort competition. This is a daunting task, as it entails analyzing each law and regulation applicable to a given service sector in each economy. This is precisely the function the STRI and the STPD regulatory data perform. The online tools enable the connection between the STRI numbers

³⁰ Previous efforts include:

- the World Bank in 2008-11 where regulatory data were collected and an STRI compiled for 19 sectors and 103 economies, of which 68 low or middle income (based on 2022 World Bank income groups classification);
- the World Bank and WTO in 2016-2019 where data were published for 23 sectors across 68 economies, of which 35 low or middle income; and
- the OECD which publishes an STRI and regulatory data since 2014 for 22 sectors and 50 economies, of which 15 are low or middle income.

with the rich regulatory data available in the STPD.³¹ These tools provide a great degree of transparency regarding the regulatory landscape affecting trade in services. Evidently, such information is crucial for policy making, research, and business operations.

The World Bank and the WTO often receive requests for technical assistance from governments seeking to improve their regulatory frameworks, align their regulations with best practices and relevant international commitments, with a view to enable export diversification and leverage the increasing importance of trade in services. Such requests entail forging a well-informed dialogue with government representatives from different agencies to identify the factors, including regulatory ones, that may be affecting the trade competitiveness of an economy.

The availability of STRIs by detailed subsector/mode of supply and granularity of the regulatory data in the STPD are critical to conduct a proper regulatory review of services trade policies and to enable a focused and well-informed public/private dialogue on trade in services. The STPD serves as an essential input to further look into the measures' policy rationale and the potential adverse effects not only on services domestic suppliers, but also on businesses in agriculture and manufacturing whose competitiveness may be affected by non-efficient protected services inputs. Such a review can be facilitated thanks to the systematic organization of the information in the STPD by subsector, mode of supply, policy area (conditions on market entry, on operations, competition, and administrative procedures and regulatory transparency),³² the explanatory description of the measure and its legal basis.

The STRI and the regulatory information in the STPD enable policy makers to better negotiate international trade agreements on services. For one, the database allows negotiators to identify whether specific measures may potentially represent a discriminatory measure, a quantitative restriction, a local presence requirement or other types of barriers. Furthermore, a key question arising in any international negotiation is whether a particular country may undertake commitments that may entail a reform to domestic legislation. Regardless of the political decision a government may take on this matter, it is only possible if policy makers actually know the regulatory status quo affecting trade in services at a given time. Thus, having a regulatory audit helps negotiators to assess whether they may or not have leeway to respond affirmatively to a trade concession requested by the counterpart. Further, the data also enable governments to learn and assess the applied services policies of their counterparts, and their relative level of restrictiveness, facilitating informed concessions and addressing any potential gaps in information asymmetry.

The regulatory information in the STPD helps all stakeholders to verify the effective implementation of commitments undertaken in the context of international services negotiations. Stakeholders can compare the concessions included in any trade agreement

³¹ The information is easily accessible using the "STRI measures" tick box selection in the Policy information selection menu of the STPD and STRI page available at [WB-WTO | I-TIP Services](#).

³² See the Methodology document referred to and linked in Footnote 9 above, Table 2.

with the information on applied services policies, and in this way determine whether a particular existing law or regulation may contravene an international commitment in a trade in services agreement. In this regard, such exercise will in the near future be easier as the joint World Bank/WTO team is currently developing a Preferential Services Trade Restrictions Index (PSTRI), benchmarking applied services policies to services commitments undertaken in the context of bilateral or regional trade agreements. As the database evolves, it will become an easily accessible tool for policy makers to monitor compliance with international commitments.

The STRI and STPD can also be used by services exporters when considering potential markets to supply their services. The indices enable the identification of jurisdictions which have restrictive policies towards foreign services and services suppliers and can guide exporters in the identification of markets which are more open to services trade. The STPD provides information on the trade and investment barriers that may exist, and the conditions to be met to enter these foreign markets (e.g., licensing requirements, necessary qualifications). The database also provides information on the administrative processes to follow.

Finally, the STRI can support evidence-based policy making. The STRI notably enables the estimation of ad valorem equivalents (AVEs) for services trade restrictions, allowing the modeling of potential economic and welfare impacts of liberalizing trade in services barriers in an economy or broader policy reforms. Understanding the potential benefits of eliminating services barriers or conversely, the opportunity costs incurred by maintaining them – becomes a critical advocacy tool in public policy dialogue. Leveraging the STRI to estimate trade costs is explained in more detail in the following section.

5.2 STRI and Trade Costs

The paper has thus far described patterns of services trade policy in terms of the STRI, i.e. an index whose relative magnitude—on a scale from 0 to 100—reflects the embodied extent of policy restrictiveness. The level of STRI scores, and the size of their changes over time, are determined by the extent to which individual applied measures are thought to affect services trade (cf. Section 2.2.2), and also by the combined effect of all measures applied in a particular subsector-mode (cf. Section 2.2.3, i.e. the aggregation methodology). The STRI as an index measure is well suited to depicting patterns of policy at very granular levels and to making various kinds of comparisons of restrictiveness—across sectors, economies, modes of supply, or over time. Thus, descriptions cast in terms of STRI scores support qualitative insights about which sectors or economies are more restrictive relative to others, and in which direction the policy stance has changed over time.

What is missing, however, is the link between differences or changes in the STRI and its associated impact on trade costs. Making this link requires knowledge of the sensitivity of services trade flows with respect to policy barriers as encapsulated in the STRI. This elasticity

of the value of services trade flows with respect to policy measures can be estimated with the help of a structural gravity model. Then, with the help of this elasticity in combination with structural gravity theory, changes in policy can be translated into associated changes in trade costs. In practice, as one might reasonably expect this elasticity to vary across services sectors, we estimate this key parameter separately for broad service sectors (and it can potentially also be estimated separately for different modes of supply within service sectors).

Estimating the response of services trade flows to changes in the STRI entails extensive empirical work and requires a range of assumptions. Yet the payoff from making this additional step is that the implications for *services trade costs* of changes in the STRI can be studied.³³ The magnitude and incidence of services trade costs expressed in ad valorem terms (thus called “ad valorem equivalent (AVE)” trade cost changes) are a crucial and informative metric for policy makers, negotiators, and academic researchers. Hence, one important application of STRI scores are analyses of AVE services trade costs. In this section, we illustrate the use of STRIs for studying AVE trade costs by constructing and discussing the AVE trade costs associated with the actual observed change in policy stances as between 2016 and 2022.³⁴ Doing so allows us to add insights to the findings presented in Section 4.1 of how global policy has shifted between 2016-22. The principal qualitative message that developing countries have generally become more open whereas a tendency towards policy reversals can be observed among high-income countries (cf. Table 4.1) continues to stand, of course, since the ad valorem trade cost changes are based on STRI changes and are therefore bound to deliver a similar qualitative message. However, because the policy changes translate into trade cost changes in a nonlinear manner, it is well worth exploring the magnitude of trade cost reductions enjoyed by countries and sectors that have become more open, and to gauge the additional costs associated with services policy reversals.

Figure 5.1 shows the global tilt in services trade policies by plotting AVE trade cost changes over the six-year period since 2016 against the initial level of STRI in 2016, whereby each dot

³³ The STRI is the appropriate tool for depicting patterns and differences in policy restrictiveness across economies, sectors or modes. Since the STRI reflects MFN policies and as such represents a country characteristic, it is not possible to identify levels of services trade costs that would be directly associated with STRI scores. This is because a gravity estimation that is consistent with structural gravity theory requires the inclusion of country-time fixed effects that are collinear with STRI information. However, what can be identified is the impact of the STRI on the magnitude of the border barrier, i.e. the friction encountered when services are traded across two jurisdictions. In that context, *changes* in policy can be translated into trade cost changes. Moreover, the structural gravity estimations that underpin the construction of AVE estimates require domestic trade flows, which in turn necessitates a mapping of services trade flows to production. This concordance constrains both the sectoral scope and level of disaggregation, rendering AVEs available only for a few, highly aggregated broad services sectors. By contrast, STRI scores are not subject to these limitations and therefore afford to describe policy patterns in much finer sectoral detail.

³⁴ AVEs are—by design—not sensitive to the aggregation method used in constructing the STRI, for two reasons. Firstly, AVEs are associated with changes in STRI scores, not levels. Since the aggregation method employed in the construction of STRIs primarily affects the level of the index, it is not directly related to the AVEs, for which the change in STRI is relevant. Second, the AVEs preserve the qualitative ordering of economy-sectors in terms of STRI changes; this is guaranteed by the analytical method employed to construct AVEs. That is, the country-sector with the largest change in STRI will also exhibit the largest AVE.

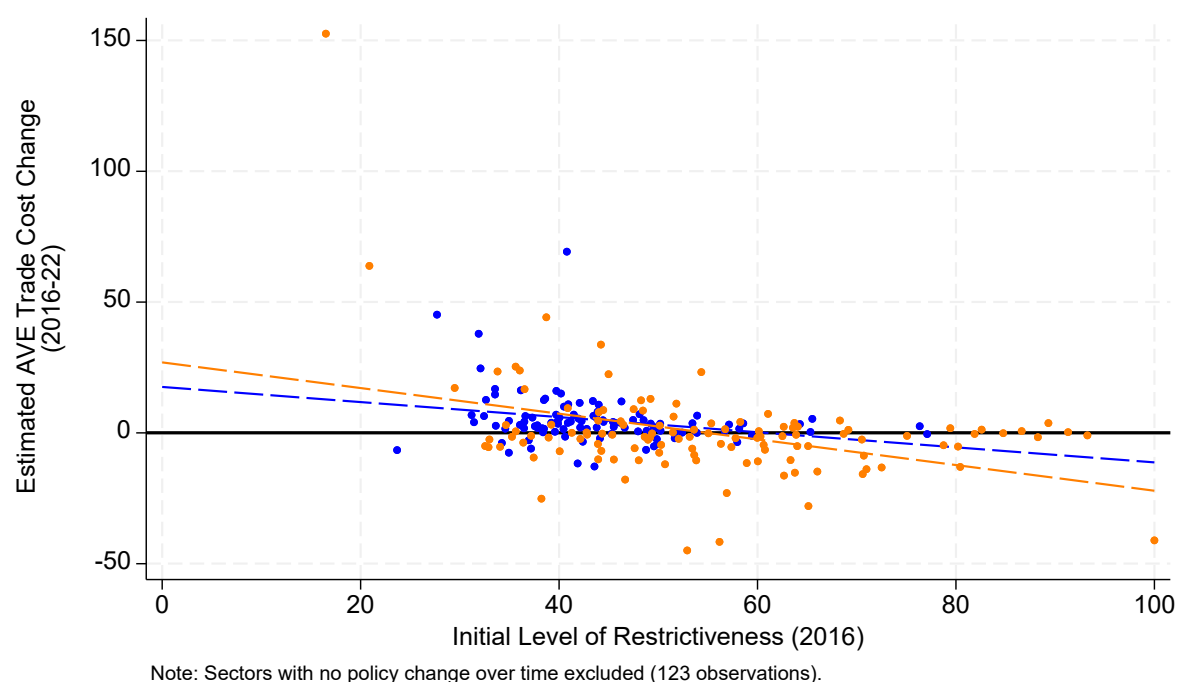
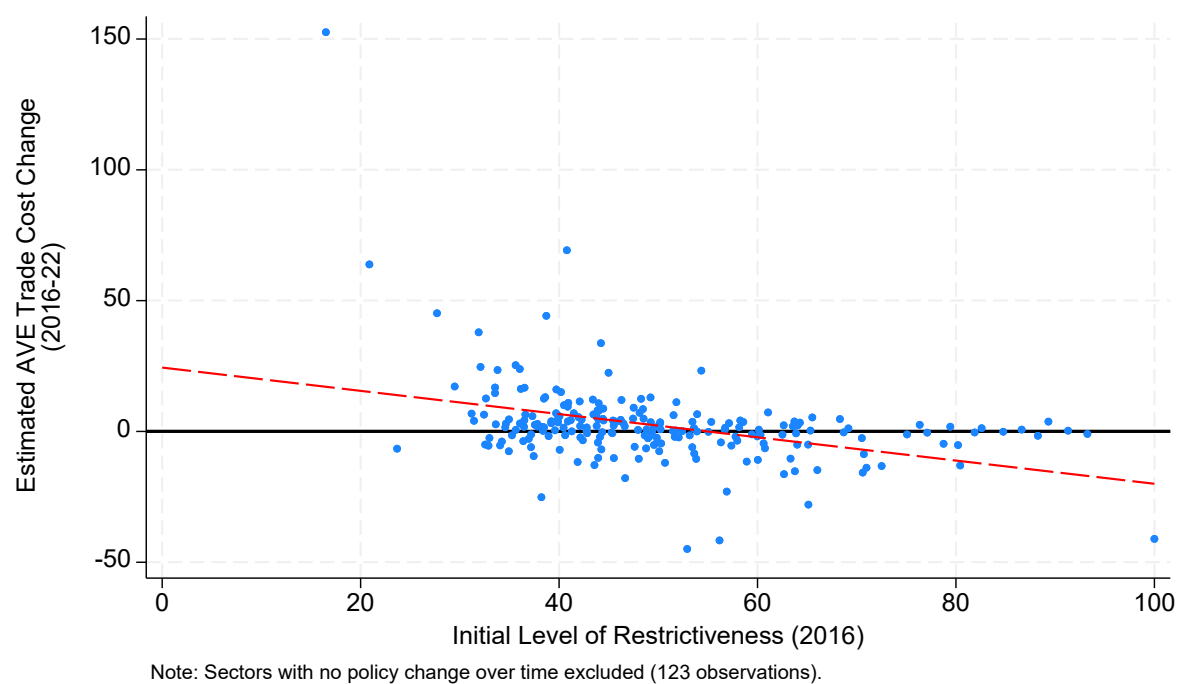
represents a country-sector combination. The majority of dots cluster around the black horizontal line, indicating that many economy-sector combinations experienced little change in restrictiveness.³⁵ That said, a negative correlation between trade cost changes and initial levels of restrictiveness is clearly discernible in the upper panel of Figure 5.1: country-subsectors that were relatively closed to services trade in 2016 (lying to the right on the horizontal axis) exhibit a negative change—that is, a percentage decrease—in trade costs, whereas at the opposite end country-subsectors that were comparatively open (to the left on the horizontal axis) would often exhibit an increase in trade costs as a result of tighter services trade policies.

The lower panel of Figure 5.1 offers the exact same scatter plot but color-codes the income level of the economy behind each dot. Specifically, orange dots denote low- and middle-income economies whereas blue dots refer to high-income economies. The representation more clearly reveals the systematic relationship of trade cost changes to per capita income status that was already apparent in Table 4.1. On the right-hand side of the figure, most dots showing a fall in trade costs are orange (i.e. pertaining to a developing economy), whereas on the left-hand side most dots above the horizontal line and thus indicating a rise in trade costs are blue.³⁶ Reflecting the convergence of policies that was the main focus of Section 4.1, the fitted lines in Figure 5.1 exhibit a negative slope, and since the policy shift is predominately driven by more openness across developing economies, their associated fitted line in orange is steeper than the fitted line for high-income countries in blue.

³⁵ For better visibility of those country-sectors that did experience a change in policy stance, all country-sector combinations with no observed change are omitted from Figure 5.1; the number of omitted observations is provided below the figure.

³⁶ The two notable exceptions to this pattern pertain to Ecuador, which tightened its policies in transportation services and in insurance/pension services, leading to estimated trade cost changes of +152% and 64%, respectively.

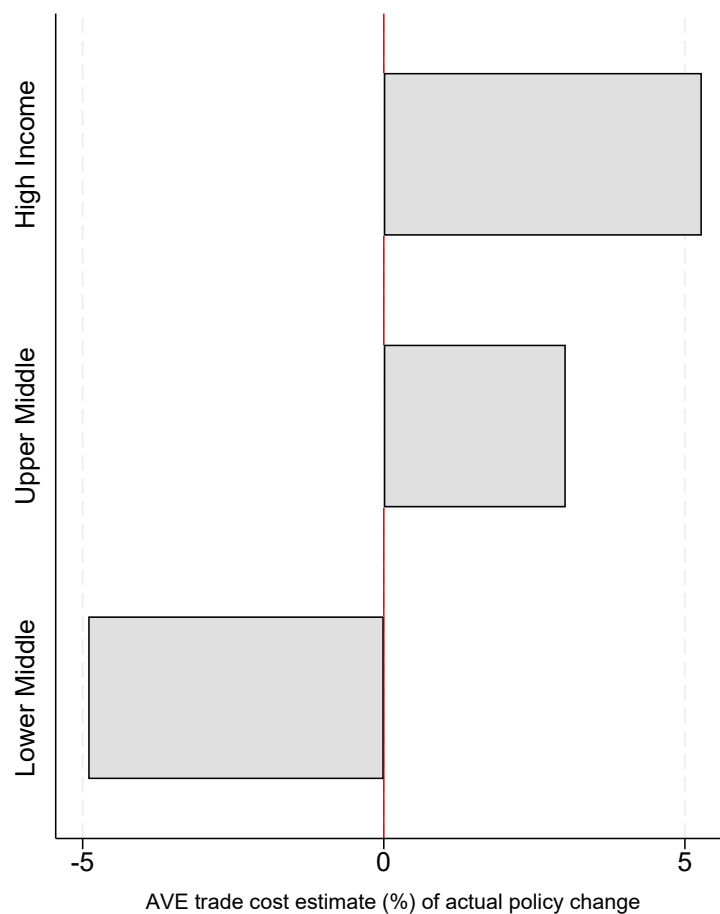
Figure 5.1: Change in AVE trade cost estimates against initial level of restrictiveness, 2016-2022



The main additional insight of this STRI application is however to bring the trade cost implications into sharper focus. To conclude this illustration of how STRI scores can be harnessed for trade cost studies, Figure 5.2 presents the average implied trade cost changes, in percentage terms, separately by per-capita income groups. As was already apparent from

Figure 5.1, lower-income economies benefit from a fall in services trade costs whereas higher-income economies see their costs rise as a result of more restrictive applied policies.

Figure 5.2: Average change in AVE trade costs 2016-2022, by income bracket



Note: Based upon 69 economies for which changes in policy are observed over time; mid-point 2019 income per capita brackets used.

6 CONCLUSION

Following more than three decades of liberalization, services trade policy can now be examined with unprecedented scope and detail thanks to the 2024 edition of the Services Trade Policy Database (STPD). Covering 134 economies across all income groups and world regions, this paper offers a comprehensive snapshot of applied services trade policies as of 2022—nearly doubling the sample size since the 2020 analysis and enabling a meaningful assessment of trends over time. This paper uncovers a complex and evolving landscape of global services trade policy wherein stark contrasts emerge by income group, region, sector, and mode of supply.

A prominent development during the most recent 2016–2022 period is a notable two-pronged shift in global services trade policy openness, with lower-middle income economies leading in liberalization and high-income economies becoming more restrictive. This reversal has resulted in a global convergence of services trade policy stances, though not necessarily toward greater openness. Also, whereas liberalization efforts during the 2008-16 period were largely sector-specific, reflecting targeted reforms within individual sectors, the recent increase in policy restrictiveness in high-income economies has been driven largely by horizontal measures.

Starting at higher levels of restrictiveness, lower-middle income economies have liberalized across most sectors, notably in banking, legal, and maritime transport, often aiming to attract foreign investment. In contrast, high-income economies, which had achieved relatively low levels of restrictiveness by 2016, have increasingly imposed horizontal restrictions on investment and cross-border data flows, often driven by geopolitical and security concerns. Middle-income economies have either liberalized or maintained their policies in these areas, with a tendency towards alignment with more advanced economies in the adoption of data regulations.

Regarding the movement of natural persons, middle-income economies have generally tended to ease entry conditions, whereas high-income economies have introduced more stringent measures, specifically labor market tests. These shifts underscore a broader transformation: developing economies are driving liberalization, while advanced economies are introducing new forms of trade restrictions and thereby narrowing the erstwhile gap in services trade policy openness.

By constructing ad valorem equivalent (AVE) trade cost changes that are underpinned by a structural gravity model for services trade flows, we additionally estimate that lower income economies have benefitted in economically meaningful terms from their policy changes towards more openness. Likewise, the AVE trade cost changes also indicate the incremental

burden of less services trade that higher income economies incur as a result of their more restrictive applied policies.

Notwithstanding these overarching trends, income level alone does not always explain policy patterns. In some sectors—such as computer, professional, and transportation services—higher income economies are often more restrictive than their lower income counterparts. For instance, computer services are most open in low-income and lower-middle income countries and most restrictive in high-income economies, which reflects data flow regulation and investment screening restrictions that are often absent in the former group.

Additionally, economies with a higher share of industrial value added in GDP tend to maintain more restrictive policies towards foreign services or service suppliers. Since imports of producer input services—from finance and professional services to logistics—can make vital contributions to the competitiveness of domestic industries, a potential concern for developing and emerging economies is that their more restrictive policy stance may be depriving them of opportunities for value chain integration, as the production and export of industrial goods require a range of services that may be lacking locally or be overly expensive to import under restrictive trade conditions.

Regionalism turns out to play a significant role in shaping the degree of policy alignment across economies. Africa stands out for its heterogeneity of policies across most sectors, while other regions also display similar variation in certain sectors—for instance, Asia in transport and distribution, Europe in transport, communications, and distribution, and South America in professional services. In contrast, regional economic groupings such as WAEMU, EAC, CPTPP, and the EU exhibit a relatively high degree of policy homogeneity, underpinned by shared regulations and economic objectives.³⁷ These groupings often coordinate services trade policy through common rules that, de facto or de jure, also shape their members' MFN policies toward non-parties to the groupings.

It is worth highlighting policy patterns in tourism and health services as these sectors—of considerable interest to developing economies—are covered for the first time in the 2024 STPD. Restrictions on tourism services are higher in low and lower-middle income countries, often due to efforts to protect local industries and jobs. Health-related services, despite heavy regulation aimed at ensuring service quality and universal access, are overall only moderately restricted, which reflects a mix of liberal policies in Modes 2 and 3 alongside more restrictive policies in Modes 1 and 4.

³⁷ WAEMU refers to the West African Economic and Monetary Union; EAC to the East African Community; CPTPP to the Comprehensive and Progressive Agreement for Trans-Pacific Partnership; and EU to the European Union.

The different modes of supply, a unique feature of services trade, also exhibit a distinct policy pattern. Mode 1 is consistently the most restricted, particularly in financial services, for which regulators often require local presence to ensure regulatory oversight and safeguard consumer protection. By comparison, Mode 3 policies exhibit relatively uniform restrictiveness across the board, even though some sectors such as legal representation on host country law, television, and rail freight transport stand out as significantly more restrictive, mostly driven respectively by stringent licensing requirements, foreign equity limits, or the presence of state-owned monopolies. Mode 4 policies exhibit the least variation due to horizontal measures such as labor market tests driving the restrictiveness. In professional services, mode 4 restrictions frequently stem from limited recognition of foreign qualifications and education.

Juxtaposing policy stances across the services and goods domains reveals some unexpected correlations. Whereas many high-income economies unsurprisingly maintain relatively open regimes in both areas, low-income countries often combine high barriers to goods trade with a mixed stance on services; in particular in several lower-middle income and small island economies both goods and services face significant barriers despite the heightened importance of trade and seamless connectivity for these economies. Aligning services and goods trade policies more strategically could help countries better leverage the complementarities between the two domains and enhance competitiveness.

The evolving structure of services trade policy—marked by both convergence and divergence across countries, sectors, and modes—calls for nuanced policy making that accounts for both cross-sectoral and sector-specific dynamics. The STRI and STPD regulatory data are useful tools in this regard for informing services policy making, fostering national public/private dialogue, assisting trade negotiations, implementing international agreements, conducting research, and supporting the business activities of services exporters. Policy makers and services suppliers from both developing and developed economies can leverage these data to facilitate a more strategic integration into the international services market and maximize its potential for development.

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ANNEX 1: LIST OF ECONOMIES COVERED, AVAILABLE YEARS AND SOURCE

Economy	Year(s) ³⁸	Source	World Bank Income Group
Albania	2019	WTO/WB survey, in cooperation with CEFTA Secretariat	Upper-middle income
Algeria	2020	WTO/WB survey	Lower-middle income
Angola	2020	WTO/WB survey, in cooperation with GIZ	Lower-middle income
Argentina	2016 and 2022	WTO/WB survey	Upper-middle income
Australia	2016 and 2022	OECD	High-income
Austria	2016 and 2022	OECD	High-income
Bangladesh	2016 and 2022	WTO/WB survey	Lower-middle income
Belgium	2016 and 2022	OECD	High-income
Belize	2022	WTO/WB survey	Upper-middle income
Benin	2021	WTO/WB survey, in cooperation with GIZ and EU	Lower-middle income
Bosnia and Herzegovina	2019	WTO/WB survey, in cooperation with CEFTA Secretariat	Upper-middle income
Botswana	2021	WTO/WB survey, in cooperation with GIZ	Upper-middle income
Brazil	2016 and 2022	OECD	Upper-middle income
Burkina Faso	2020	WTO/WB survey, in cooperation with ITC	Low-income
Burundi	2021	WTO/WB survey, in cooperation with GIZ	Low-income
Cabo Verde	2021	WTO/WB survey, in cooperation with GIZ and EU	Lower-middle income
Cameroon	2020	WTO/WB survey	Lower-middle income
Canada	2016 and 2022	OECD	High-income
Central African Republic	2021	WTO/WB survey, in cooperation with GIZ and EU	Low-income
Chad	2021	WTO/WB survey, in cooperation with GIZ and EU	Low-income
Chile	2016 and 2022	OECD	High-income
China	2016 and 2022	OECD	Upper-middle income
Colombia	2016 and 2022	OECD	Upper-middle income
Comoros	2021	WTO/WB survey, in cooperation with GIZ	Lower-middle income
Congo, Rep.	2021	WTO/WB survey, in cooperation with GIZ and EU	Lower-middle income
Costa Rica	2016 and 2022	WTO/WB survey (2016); OECD (2022)	Upper-middle income
Côte d'Ivoire	2020	WTO/WB survey	Lower-middle income
Czechia	2016 and 2022	OECD	High-income
Congo, Dem. Rep.	2020	WTO/WB survey	Low-income
Denmark	2016 and 2022	OECD	High-income
Djibouti	2021	WTO/WB survey, in cooperation with GIZ	Lower-middle income
Dominican Republic	2016 and 2022	WTO/WB survey	Upper-middle income
Ecuador	2016 and 2022	WTO/WB survey	Upper-middle income
Egypt, Arab Rep.	2016 and 2021	WTO/WB survey (2016); WTO/WB survey, in cooperation with GIZ and EU (2021)	Lower-middle income
Equatorial Guinea	2021	WTO/WB survey	Upper-middle income
Estonia	2016 and 2022	OECD	High-income

³⁸ For economies covered in 2008, please refer to Borchert et al. (2020).

Eswatini	2020	WTO/WB survey, in cooperation with ITC	Lower-middle income
Ethiopia	2020	WTO/WB survey	Low-income
Fiji	2021	WTO/WB survey	Upper-middle income
Finland	2016 and 2022	OECD	High-income
France	2016 and 2022	OECD	High-income
Gabon	2020	WTO/WB survey	Upper-middle income
Germany	2016 and 2022	OECD	High-income
Ghana	2020	WTO/WB survey, in cooperation with ITC	Lower-middle income
Greece	2016 and 2022	OECD	High-income
Guinea	2021	WTO/WB survey, in cooperation with ITC	Lower-middle income
Guinea-Bissau	2021	WTO/WB survey, in cooperation with GIZ and EU	Low-income
Hong Kong SAR, China	2016 and 2022	WTO/WB survey	High-income
Hungary	2016 and 2022	OECD	High-income
Iceland	2016 and 2022	OECD	High-income
India	2016 and 2022	OECD	Lower-middle income
Indonesia	2016 and 2022	OECD	Upper-middle income
Ireland	2016 and 2022	OECD	High-income
Israel	2016 and 2022	OECD	High-income
Italy	2016 and 2022	OECD	High-income
Jamaica	2022	WTO/WB survey	Upper-middle income
Japan	2016 and 2022	OECD	High-income
Jordan	2022	WTO/WB survey	Lower-middle income
Kazakhstan	2016 and 2022	WTO/WB survey (2016); OECD (2022)	Upper-middle income
Kenya	2016 and 2020	WTO/WB survey	Lower-middle income
Korea, Rep.	2016 and 2022	OECD	High-income
Latvia	2016 and 2022	OECD	High-income
Lesotho	2021	WTO/WB survey, in cooperation with GIZ	Lower-middle income
Liberia	2021	WTO/WB survey, in cooperation with GIZ and EU	Low-income
Libya	2021	WTO/WB survey, in cooperation with EU	Upper-middle income
Lithuania	2016 and 2022	OECD	High-income
Luxembourg	2016 and 2022	OECD	High-income
Madagascar	2021	WTO/WB survey, in cooperation with GIZ	Low-income
Malawi	2021	WTO/WB survey, in cooperation with GIZ	Low-income
Malaysia	2016 and 2022	WTO/WB survey (2016); OECD (2022)	Upper-middle income
Mali	2020	WTO/WB survey, in cooperation with ITC	Low-income
Mauritania	2021	WTO/WB survey, in cooperation with EU	Lower-middle income
Mauritius	2020	WTO/WB survey	Upper-middle income
Mexico	2016 and 2022	OECD	Upper-middle income
Moldova	2019	WTO/WB survey, in cooperation with CEFTA Secretariat	Upper-middle income
Montenegro	2019	WTO/WB survey, in cooperation with CEFTA Secretariat	Upper-middle income
Morocco	2020	WTO/WB survey, in cooperation with ITC	Lower-middle income
Mozambique	2020	WTO/WB survey, in cooperation with GIZ	Low-income

Myanmar	2016 and 2022	WTO/WB survey	Lower-middle income
Namibia	2020	WTO/WB survey	Upper-middle income
Netherlands	2016 and 2022	OECD	High-income
New Zealand	2016 and 2022	OECD	High-income
Niger	2019	WTO/WB survey, in cooperation with ITC	Low-income
Nigeria	2016 and 2021	WTO/WB survey (2016); WTO/WB survey, in cooperation with EU (2021)	Lower-middle income
North Macedonia	2019	WTO/WB survey, in cooperation with CEFTA Secretariat	Upper-middle income
Norway	2016 and 2022	OECD	High-income
Oman	2016 and 2022	WTO/WB survey	High-income
Pakistan	2016 and 2022	WTO/WB survey	Lower-middle income
Panama	2016 and 2022	WTO/WB survey	High-income
Papua New Guinea	2021	WTO/WB survey	Lower-middle income
Peru	2016 and 2022	WTO/WB survey (2016); OECD (2022)	Upper-middle income
Philippines	2016 and 2022	WTO/WB survey	Lower-middle income
Poland	2016 and 2022	OECD	High-income
Portugal	2016 and 2022	OECD	High-income
Russian Federation	2016 and 2022	OECD	Upper-middle income
Rwanda	2021	WTO/WB survey, in cooperation with GIZ	Low-income
Samoa	2021	WTO/WB survey	Lower-middle income
São Tomé and Príncipe	2021	WTO/WB survey, in cooperation with GIZ and EU	Lower-middle income
Senegal	2020	WTO/WB survey	Lower-middle income
Serbia	2019	WTO/WB survey, in cooperation with CEFTA Secretariat	Upper-middle income
Seychelles	2021	WTO/WB survey, in cooperation with GIZ	High-income
Sierra Leone	2020	WTO/WB survey, in cooperation with ITC	Low-income
Singapore	2016 and 2022	WTO/WB survey (2016); OECD (2022)	High-income
Slovak Republic	2016 and 2022	OECD	High-income
Slovenia	2016 and 2022	OECD	High-income
Solomon Islands	2021	WTO/WB survey	Lower-middle income
Somalia	2020	WTO/WB survey, in cooperation with GIZ	Low-income
South Africa	2016 and 2021	OECD (2016); WTO/WB survey, in cooperation with GIZ (2021)	Upper-middle income
South Sudan	2021	WTO/WB survey, in cooperation with GIZ	Low-income
Spain	2016 and 2022	OECD	High-income
Sri Lanka	2016 and 2022	WTO/WB survey	Lower-middle income
Sudan	2020	WTO/WB survey, in cooperation with GIZ	Low-income
Sweden	2016 and 2022	OECD	High-income
Switzerland	2016 and 2022	OECD	High-income
Chinese Taipei	2016 and 2022	WTO/WB survey	High-income
Tanzania	2016 and 2021	WTO/WB survey (2016); WTO/WB survey, in cooperation with GIZ (2021)	Lower-middle income
Thailand	2016 and 2022	WTO/WB survey (2016); OECD (2022)	Upper-middle income
Gambia, The	2021	WTO/WB survey, in cooperation with GIZ and EU	Low-income
Timor-Leste	2021	WTO/WB survey, in cooperation with ITC	Lower-middle income

Togo	2021	WTO/WB survey, in cooperation with GIZ and EU	Low-income
Tonga	2021	WTO/WB survey	Upper-middle income
Tunisia	2016 and 2021	WTO/WB survey (2016); WTO/WB survey, in cooperation with EU (2021)	Lower-middle income
Türkiye	2016 and 2022	OECD	Upper-middle income
Uganda	2020	WTO/WB survey	Low-income
Ukraine	2016 and 2022	WTO/WB survey	Lower-middle income
United Kingdom	2016 and 2022	OECD	High-income
United States	2016 and 2022	OECD	High-income
Uruguay	2016 and 2022	WTO/WB survey	High-income
Uzbekistan	2022	WTO/WB survey	Lower-middle income
Vanuatu	2021	WTO/WB survey	Lower-middle income
Viet Nam	2016 and 2022	WTO/WB survey (2016); OECD (2022)	Lower-middle income
Western Sahara	2020	WTO/WB survey, in cooperation with ITC	
Zambia	2020	WTO/WB survey, in cooperation with ITC	Lower-middle income
Zimbabwe	2020	WTO/WB survey	Lower-middle income

ANNEX 2: SUMMARY OF THE COVERAGE OF SECTORS AND MODES

Note: Sectors and subsectors shown in *italics* were added to the database with the 2022 release. For further details and definitions of subsectors, refer to the [World Bank-WTO STRI Methodology Note](#).

Sectors	Subsectors	Mode 1	Mode 2	Mode 3	Mode 4
Professional	Legal services: Host country advisory services			X	X
	Legal services: Host country representation services			X	X
	Legal services: Home country law and/or third country law (advisory/representation)	X		X	X
	Accounting services	X		X	X
	Auditing services	X		X	X
	<i>Architecture services</i>	X		X	X
	<i>Engineering services</i>	X		X	X
Computer	<i>Computer and Related Services</i>	X		X	X
Communications	<i>Postal and courier services</i>	X		X	X
	Fixed-line telecommunication services	X		X	X
	Mobile telecommunication services	X		X	X
	<i>Motion picture services</i>	X		X	X
	<i>Television services</i>	X		X	X
	<i>Sound recording services</i>	X		X	X
Construction	<i>Construction and related engineering services</i>			X	X
Distribution	Wholesale trade services	X		X	X
	Retailing services	X		X	X
Financial	Life insurance	X		X	X
	Non-life insurance	X		X	X
	Reinsurance and retrocession	X		X	X
	Commercial banking	X		X	X
Health	<i>Health services</i>	X	X	X	X
Tourism	<i>Hotel and other lodging services</i>	X		X	X
	<i>Travel agencies and tour operators services</i>	X		X	X
	<i>Tourist guides services</i>				X
Transport	Maritime: Freight transportation	X		X	X
	Maritime cargo-handling, storage, warehousing and container station depot services			X	X
	Maritime intermediation auxiliary services	X		X	X
	Air passenger domestic			X	X
	Air passenger international	X		X	X
	Air freight domestic			X	X
	Rail: Freight transportation	X		X	X
	Road: Freight transportation	X		X	X

ANNEX 3: COMPOSITION OF ECONOMIC GROUPINGS

Member states of the Association of Southeast Asian Nation (ASEAN):

Indonesia; Malaysia; Myanmar; Philippines; Singapore; Thailand; Viet Nam.

Member states of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP):

Australia; Canada; Chile; Japan; Malaysia; Mexico; New Zealand; Peru; Singapore; Viet Nam.

Member states of the East African Community (EAC):

Burundi; Democratic Republic of Congo; Kenya; Rwanda; South Sudan; Uganda; Tanzania.

Member states of the European Union (EU):

Austria; Belgium; Czechia; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Netherlands; Poland; Portugal; Slovak Republic; Slovenia; Spain; Sweden.

Member states of the Regional Comprehensive Economic Partnership Agreement (RCEP):

Australia; China; Indonesia; Japan; Republic of Korea; Malaysia, Myanmar; New Zealand; Philippines; Singapore; Thailand; Viet Nam.

Member states of the West African Economic and Monetary Union (WAEMU/UEMOA):

Benin; Burkina Faso; Côte d'Ivoire; Guinea-Bissau; Mali; Niger; Senegal; Togo.