THE OECD SERVICES TRADE RESTRICTIVENESS INDEX (STRI)

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Introducing the STRI:
- What is it?
- How was it developed?
- Why does it matter?
  - Policy reforms
  - Regulatory heterogeneity
  - Tariff equivalent of services trade costs

STRI tools
The role of services in the economy

Source: WDI
WHAT IS THE STRI?
OECD STRI objectives

- Identify and catalogue barriers to trade in services at and behind the border
- Develop a detailed and up-to-date information tool for exporters
- Analysis of economic and social impact of reform
- Better policies!
OECD STRI sectoral coverage

Digital Network
- Computer
- Telecoms
- Audiovisual

Supply Chain
- Transport
- Logistics
- Distribution

Trade and Finance Support
- Legal
- Accounting
- Financial

Physical Infrastructure
- Architecture
- Engineering
- Construction
OECD STRI regulatory database

- Standardised set of measures, with links to sources - more than 16000 laws and regulations
- 44 countries
- 22 Sectors
- 88000 observations per year
- 2018 to be published in December
<table>
<thead>
<tr>
<th>Sector</th>
<th>Pol. area</th>
<th>Measure</th>
<th>Answer</th>
<th>Source</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banking</td>
<td>Restrictions on foreign entry</td>
<td>Commercial presence is required: deposit-taking</td>
<td>yes</td>
<td><strong>Financial Services and Markets Act 2000</strong>, last updated in June 2017, Sections 19 and 22</td>
<td>Part IV permission requires commercial presence.</td>
</tr>
<tr>
<td>Computer</td>
<td>Restrictions to movement of people</td>
<td>Labour market tests: contractual services suppliers</td>
<td>yes</td>
<td><strong>Immigration Rules</strong>, last updated in June 2017, Part 6A, s. 245GB and Appendix A, s.73-75E</td>
<td>For the Tier 2 (General) Visa there is a resident labour market test where the recruiter has to advertise the job and show that no suitable settled worker is available.</td>
</tr>
<tr>
<td>Maritime</td>
<td>Other discriminatory measures</td>
<td>Discriminatory port tariffs and other port-related fees</td>
<td>yes</td>
<td><strong>Merchant Shipping Act 1995</strong>, last updated in January 2003, Part VIII: Section 222</td>
<td></td>
</tr>
<tr>
<td>Logistics</td>
<td>Regulatory transparency</td>
<td>Multiple entry visas are allowed for crew: truck drivers</td>
<td>no</td>
<td><strong>Immigration Act 1971</strong>, last updated in July 2009</td>
<td></td>
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<td></td>
<td><strong>Immigration Rules</strong>, last updated in June 2017</td>
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</table>
OECD STRI composite index

- Puts numbers to the information in the regulatory database using a scoring and weighting system
  - Codified algorithm
  - Replicable
  - Independent of sample
- Takes values between 0 (open) and 1 (closed)
- A snapshot of trade restrictiveness at a particular point in time
HOW WAS IT DEVELOPED?
The choices made

1. Which measures to include?
2. How to structure the information
   - Policy areas
   - Sub-indicators
3. How to transform qualitative information into quantitative scores
4. Which weight to give to measures and sub-indicators
Which measures?

• Measures normally scheduled under the GATS and RTAs
• Related to future negotiations on rules in the WTO/GATS
• Ask stakeholders (business community, regulators, academics)
• Iterative process: Discussions and approval by the OECD Trade Committee
How to structure the measures

• By five policy areas
  – Restrictions on foreign entry
  – Restrictions to the movement of people
  – Other discriminatory measures
  – Barriers to competition
  – Regulatory transparency

• By mode of supply

• Barriers to entry/limitations on operations

• Discriminatory/non-discriminatory
Scoring

- Assigning numbers to qualitative information
  - Binary scores (0 and 1)
  - Refinements:
    - Break complex or continuous measures into several thresholds
    - Construct nested layers/hierarchies of measures
    - Different market structure and regulatory regimes
    - Construct regulatory packages when measures are complementary
  - Memos: included in database but no score attached
Example of hierarchy

- Foreign equity
  - 0%: All measures related to FDI scored 1
  - 49%: Board members Screening M&A scored 1
  - 100%: All measures scored normally
Example of different regulatory regimes

- Barriers to competition
  - Dominant supplier
    - Regulation is good
  - Competitive markets
    - Price regulation is bad
Weighting

• Equal weighting of all measures within policy categories

• Weights of the 5 policy areas assigned by expert judgement
  – Online survey – experts asked to allocate 100 points among the five policy areas
  – Large number of experts per sector from a diverse set of countries
Robustness and sensitivity

- Principal component analysis weights: They are based on the sample of countries for which they are estimated. Thus, any extension of the country coverage implies a new estimation of the PCA weights. We have therefore chosen not to use PCA.
- Equal weights: most common weighting scheme applied for constructing composite indicators. It is a fair choice in the absence of an empirical basis for deciding which is more important.
- Random weights: The sensitivity of the indices to the weighting scheme has been tested by experimenting with alternatives and by picking 3000 weighting schemes at random (i.e. Monte Carlo simulations).
Random weights
STRI Annual Updates

• Keeping the STRI a “living instrument”:
  – Updated database and indices every year
  – Capturing current and emerging barriers to services trade

• Keeping the STRI relevant:
  – Monitoring trade policy developments
  – Providing annual data for research and analysis

• Unique:
  – the STRI is the first of its kind to have comparable data for 4 consecutive years!
WHY DOES IT MATTER?
What can the STRI be used for?

- Provide **background information** for trade negotiations
- **Benchmark** domestic reforms
- Identify **regulatory bottlenecks** and regulatory spillovers across sectors and policies
- Analyse how regulation shapes **global value chains** e.g. which activities are located in which countries
- Estimate ex ante the likely impact of proposed **trade agreements** or reforms on industrial structure, employment, relative wages and welfare
- Support **regulatory cooperation** across countries
Impact of policy reforms – Telecoms in Mexico (1)

In 2015, a new telecommunications and broadcasting law (Ley Federal de Telecomunicaciones y Radiodifusión) entered into force:

• rolling back foreign equity restrictions in fixed-line and internet services segments of the sector.

• The law also introduced a new independent regulator and

• a series of pro-competitive measures to challenge the dominant position of incumbent telecommunications firms (price regulations)
Impact of policy reforms – Telecoms in Mexico (2)

Restrictions on foreign entry
Restrictions to the movement of people
Other discriminatory measures
Barriers to competition
Regulatory transparency
Average

Link to the simulator
• The Telecoms reform in Mexico in 2015 helped create an environment for:
  – Price reductions up to 75% in mobile broadband packages
  – Better quality services
  – Addition of 50 million mobile broadband subscriptions
  – A sharp drop in the cost of telephone calls and internet access benefits poorer families
  – Fall of 12% in the incumbent’s share in the mobile broadband market
The STRI database provides information not only on the level of restrictions in force in each country, but also on the extent to which regulatory systems in different markets resemble each other.

- Indices of regulatory heterogeneity are constructed by pairwise comparison of countries, measure by measure and sector by sector.

- For each measure, the country pair has a score of zero if both countries have the same answer (similar regulation) and a score of one if they have different answers (diverging regulation), the so-called answer-based regulatory heterogeneity.

- The scores are aggregated using the same weights as for the STRI indices. The resulting STRI regulatory heterogeneity indices capture differences in the set of regulatory requirements by country pair and sector.
Measuring regulatory heterogeneity (2)
Measuring regulatory heterogeneity (3)
The intra-EEA STRI database systematically collects information on services trade restrictions within the Single Market. For this purpose, it contains information from three different sources:

1. Legislation at the EU-level, representing the legal framework for the free movement of persons, goods, services and capital within the Single Market: EU Regulations, EU Directives, and the Treaty on the Functioning of the European Union.

2. Information from national STRI databases: for the measures focusing on aspects of non-discriminatory domestic regulation, not covered by EU legislation.

3. Additional information from national legislation is used in cases where preferential access is not directly mandated by EU legislation, but member countries do treat suppliers from EEA countries differently than suppliers from third countries.

Due to the importance of national measures, it is not meaningful to compute one single intra-EEA STRI but separate indices are calculated for each of the 25 EEA members covered by the STRI.
Sector-profiles: intra-EEA STRI 2017
Regulatory heterogeneity by sector

Telecommunication
Logistics cargo-handling
Commercial banking
Courier services
Logistics storage and warehouse
Legal services
Distribution services
Architecture services
Computer services
Engineering services
Rail freight transport
Construction
Sound recording
Insurance
Accounting services
Logistics freight forwarding
Motion pictures
Broadcasting
Maritime transport
Air transport
Road freight transport
Bilateral regulatory heterogeneity
Services restrictions increase trade costs

Average estimated tax-equivalent of services trade restrictions, by sector, 2014

The burden of services restrictions falls disproportionately on SMEs
• The rise of services in the global economy
• The regulatory environment for services
• The benefits of open services markets
• Services trade and inclusive growth
OECD STRI Country studies

- In-depth application of STRI analysis at the country level
- Brazil
- India
- Korea
- Australia [forthcoming]
STRI TOOLS
STRI Suite of Tools

- Regulatory database
- Compare countries
- Policy simulator

App store
Google play

Summary notes
Research papers
Thank you!
Contact us

We look forward to hearing from you!

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