Indicators for Trade Facilitation: A Handbook
(Version 1.0)
Preface

This digital Handbook was developed as a follow-up to the Workshop on Trade Facilitation Performance and Monitoring, co-organized on 23 November 2015 by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), the Organization for Economic Cooperation and Development (OECD) and the Asian Development Bank (ADB), in collaboration with World Bank (WB), International Trade Centre (ITC), World Customs Organization (WCO), United Nations Conference on Trade and Development (UNCTAD), with the support of the United Nations Network of Experts for Paperless Trade and Transport in Asia and the Pacific (UNNExT), the China International Electronic Commerce Center (CIECC) and the New Zealand Ministry of Foreign Affairs and Trade.*

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This Handbook aims to assist readers in accessing currently available Trade Facilitation indicators. All the data and indicators presented remain the property and the responsibility of the organization which developed them. Their inclusion in this Handbook does not necessarily indicate that they have been endorsed by the United Nations or the OECD.

Introduction

There has been growing interest in trade facilitation since the beginning of the new millennium, as evidenced by the successful negotiation of the WTO Trade Facilitation Agreement (TFA) as well as the rapid increase in trade facilitation commitments made through regional trade agreements and other specialized agreements (e.g., transit agreements or regional single window agreements).

As governments continue their efforts to reduce trade costs by streamlining trade-related procedures and enhancing the quality of related infrastructure and services, it is important that officials in charge of developing future plans in this area be fully cognizant of the available data and indicators they may use to monitor progress.

Accordingly, this Handbook aims at providing a comprehensive source of information on publicly available cross-country databases and indicators relevant to trade facilitation in a format easy to use for both trainers and individual readers alike. Rather than going through the Handbook sequentially, users are encouraged to navigate through it and “dig deeper” by clicking any of the many internal and external links.

What does Trade Facilitation encompass?

The Handbook has put special focus on indicators related to areas (*) and (**). Indicators regarding area (***), can be consulted in the indicator’s webpage links provided in this Handbook.
A wide range of indicators related to trade facilitation have been developed over the past 15 years, in part because of the growing importance attached to this issue at the WTO. These indicators are often very different in nature and/or scope, depending on whether a broad or narrow definition of trade facilitation was adopted and their specific purposes. As a result, they often overlap and there is no easy way to classify them.

In its broadest sense, trade facilitation is about reducing international trade costs, and we therefore start by introducing the ESCAP-World Bank Trade Cost Database, which arguably provides the most comprehensive and aggregate data on bilateral trade costs.

We then focus on databases which provide indicators related to customs and other regulatory trade procedures, which form the core of the trade facilitation agenda. The World Bank Doing Business Survey and its Trading Across Borders indicators are introduced, supplemented by relevant indicators from the World Bank Enterprise Surveys, which provide firm-level data for many countries.

Two other databases are then reviewed, both of which focus on implementation of specific trade facilitation measures rather than on providing time or cost performance indicators. The OECD trade facilitation indicators provide a detailed view of the extent of implementation of WTO TFA measures, while the UN Survey on Trade Facilitation and Paperless Trade Implementation also provides information on the state of implementation of various paperless trade measures.

The Handbook then presents indicators that go beyond the relatively narrow WTO TFA definition of trade facilitation to touch upon trade and transport infrastructure as well as services. This includes indicators from the World Bank Logistics Performance Index (LPI), the UNCTAD Liner Shipping Connectivity Index (LSCI), as well as from the World Economic Forum. The Services Trade restrictiveness Indices of both World Bank and OECD are then briefly introduced.

The Handbook ends with a call for countries to develop trade and transport facilitation monitoring mechanisms (TTFMMs), in line with the new UN/CEFACT Recommendation No. 42 adopted in April 2017 in support of the implementation of trade facilitation reforms.
### Table of contents by source

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
</table>
| I.      | ESCAP-World Bank Trade Costs Database  
|         | • UNESCAP-World Bank Trade Costs Database  
|         | • UNESCAP Value-Added Trade costs Database  |
| II.     | World Bank Doing Business Trading across borders  
|         | • Trading Across Borders Rank Indicator  
|         | • Border Compliance: Time and cost to export/import  
|         | • Documentary Compliance: Time and cost to export/import  
|         | • Domestic Transport: Time and cost to export/import  |
| III.    | World Bank Enterprise Surveys  
|         | • Days to clear a direct exports through customs  
|         | • Days to clear imports from customs  
|         | • Percent of firms identifying customs and trade regulations as major constraint  |
| IV.     | OECD Trade Facilitation Indicators  
|         | • Eleven Trade Facilitation indicators  |
| V.      | United Nations Global Survey on Trade Facilitation and Paperless Trade Implementation  
|         | • General Trade Facilitation measures  
|         | • Paperless Trade measures  
|         | • Cross-border Paperless Trade measures  
|         | • Transit Facilitation measures  |
| VI.     | World Bank Logistic Performance Index (LPI)  
|         | • World Bank Logistic Performance Index (International)  
|         | • World Bank Logistic Performance Index (Domestic)  
|         |   i. Environment and Institutions  
|         |   ii. Performance  |
| VII.    | UNCTAD Liner Shipping Connectivity Index (LSCI) & Liner Shipping Bilateral Connectivity Index (LSBCI)  
|         | • Five components of the LSCI  
|         | • Five components of the LSBCI  |
|         | • Border administration  
|         |   i. Efficiency and transparency of border administration  
|         | • Infrastructure  
|         |   i. Availability and quality of transport infrastructure  
|         |   ii. Availability and quality of transport services  
|         |   iii. Availability and use of ICTs  |
| IX.     | World Bank & OECD Services Trade Restrictiveness Index (STRI)  
|         | • World Bank STRI  
|         | • OECD STRI  |
| X.      | Beyond Aggregate Indicators and Cross-country Databases: Trade and Transport Facilitation Monitoring Mechanism (TTFMM)  |
# ESCAP-World Bank Trade Costs

## Overview
- The United Nations ESCAP and the World Bank joined hands in 2011 to develop a common bilateral trade costs database.
- The bilateral measure of trade costs includes all costs involved in trading goods internationally relative to trading goods domestically, including but not limited to cumbersome trade procedures.
- The current version includes data from 1995 to 2014 for over 180 countries in agriculture and manufacturing sectors.* It is updated annually, normally in June.
- Trade costs “excluding tariffs” are also available from ESCAP.

## Why is it useful?
- Standardized measure of bilateral trade costs
- Extensive country and time coverage.
- Based on macro data, not perception
- Possible to find trade costs with each trading partner, or to calculate sub/regional trade costs
- Can be used to evaluate relative importance of different types of costs or TF measures

## Methodology
- Trade costs are calculated using the “inverse gravity framework” developed by Novy (2009). The resulting trade cost measure captures all direct and indirect costs faced by two countries when trading with each other, including transport and logistics costs, tariffs, as well as costs associated with differences in languages, currencies, geographical barriers, and cumbersome import or export procedures.

## Limitations
- Data only available with a 2-year lag
- Costs derived from macro-data rather than observed
- Disaggregation within sectors not available

Example:
Screen Shot, Thailand- China’s Data

Notes:
The ad valorem equivalent trade cost of Thailand-China for manufacturing good in 2009 was 82.67%.
In other words, the data suggest that, on average, trading manufacturing goods between Thailand and China involves, on average for all tradable manufacturing goods, additional costs amounting to approximately 83% of the value of goods as compared to when the two countries trade within their borders.

For more information: http://www.unescap.org/resources/escap-world-bank-trade-cost-database
### Overview
- The *trading across borders* indicator is one of the 11 different areas included in the *[Doing Business project](http://www.doingbusiness.org/).*
- The *Doing Business project*, launched in 2002, provides measures of business regulations and their enforcement across 190 economies.
- The *trading across borders* indicator measures the time and cost associated with the logistical process of exporting and importing goods.
- It covers three sets of procedures: (i) *Documentary compliance*, (ii) *Border compliance*, (iii) *Domestic transport*.
- The indicator is available annually, the most recent round of data collection was completed in June 2016.

### Why is it useful?
- Comparability across countries and over time since 2015.
- Extensive country coverage
- Surveys are subjected to numerous rounds of verification
- *Doing Business* study tracks and records reforms in the area of trade such as for example improvement of trade infrastructure or major changes in documentary procedure.

### Methodology**
- The data on trading across borders are gathered through a questionnaire administered to local freight forwarders, customs brokers and traders.
- Questionnaire responses are verified through several rounds of follow-up communication with respondents as well as by contacting third parties and consulting public sources.
- The questionnaire data are confirmed through teleconference calls or on-site visits in all economies.

### Limitations
- Collected data refer only to businesses in the economy’s largest city. For large 11 economies the data is available for the 2 biggest cities.
- Variations in costs depending on trade partners are not considered.
- Time and cost for domestic transport are not taken into account when ranking economies on the ease of trading across borders.
- The measures of time involve an element of judgment by the expert respondents.

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Overview:

- The ranking of economies on the ease of trading across borders is determined by sorting their distance to frontier scores.
- The “frontier” is defined by the best performance observed on each Doing Business topic across all economies and years since 2005.
- This indicator does not include the time and cost associated with domestic transport.

Methodology:

- The scores are the simple average of the distance to frontier scores for the time and cost for documentary compliance and border compliance to export and import.
- The distance to frontier is indicated on a scale from 0 to 100, where 0 represents the lowest performance and 100 the best performance (frontier). For example, a score of 67.50 means an economy is two-thirds of the way from the worst to the best performance.

Border compliance: Time and cost to export/import

Overview:

- Border compliance captures the time and cost associated with compliance with economy's customs regulations and with regulations relating to other inspections.
- These inspections are mandatory in order for the shipment to cross the economy’s border, as well as the time and cost for handling that takes place at its port or border.
- The time and cost for this segment include time and cost for customs clearance and inspection procedures conducted by other government agencies.

Methodology:

- Time is measured in hours, and 1 day is 24 hours.
- Costs are reported in U.S. dollars. Insurance cost and informal payments for which no receipt is issued are excluded from the costs recorded.
- Doing Business asks contributors to estimate the time and cost for clearance and inspections by customs and all other government agencies*.
- These estimates account for inspections related to health, safety, phytosanitary standards, conformity and the like, and thus capture the efficiency of agencies that require and conduct these additional inspections.

Example by region:

<table>
<thead>
<tr>
<th>Region</th>
<th>Time to export: Border compliance (hours)</th>
<th>Cost to export: Border compliance (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Asia &amp; Pacific</td>
<td>57.0</td>
<td>401.7</td>
</tr>
<tr>
<td>Europe &amp; Central Asia</td>
<td>28.0</td>
<td>195.0</td>
</tr>
<tr>
<td>Latin America &amp; Caribbean</td>
<td>63.5</td>
<td>526.6</td>
</tr>
<tr>
<td>Middle East &amp; North Africa</td>
<td>64.4</td>
<td>459.6</td>
</tr>
<tr>
<td>OECD high income</td>
<td>12.4</td>
<td>149.9</td>
</tr>
<tr>
<td>South Asia</td>
<td>59.4</td>
<td>376.1</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>103.0</td>
<td>583.4</td>
</tr>
</tbody>
</table>

(*) If inspections by agencies other than customs are conducted in 20% or fewer cases, the border compliance only takes into account inspections by customs. For more information: http://www.doingbusiness.org/data/exploretopics/trading-across-borders#close and http://www.doingbusiness.org/data/exploretopics/trading-across-borders/what-measured
Documentary Compliance: Time and cost to export/import

Overview:

- Documentary compliance captures the time and cost associated with compliance with the documentary requirements of all government agencies of the origin economy, the destination economy and any transit economies.

- The aim is to measure the total burden of preparing the bundle of documents that will enable completion of the international trade.

Methodology:

- The time (hours) and cost (U.S. dollars) for documentary compliance include the time and cost for (i) obtaining documents, (ii) preparing documents, (iii) processing documents, (iv) presenting documents, and (v) submitting documents.

- *Doing Business* does not include documents needed to produce and sell in the domestic market unless a government agency needs to see these documents during the export process.

For more information: [http://www.doingbusiness.org/data/exploretopics/trading-across-borders#close](http://www.doingbusiness.org/data/exploretopics/trading-across-borders#close)
Domestic transport: Time and cost to export/import

Overview:

- Domestic transport captures the time and cost associated with transporting the shipment from a warehouse in the largest business city of the economy to the most widely used seaport, airport or land border of the economy.
- This area is not included in the trading across borders rank indicator.

Methodology:

- The time (hours) and cost (U.S. dollars) are based on the most widely used mode of transport and the most widely used route as reported by contributors.
- *Doing Business* does not assume a containerized shipment, and time and cost estimates may be based on the transport of 15 tons of non-containerized products.
- The time and cost for clearance or inspections are included in the measures for border compliance, however, not in those for domestic transport.

For more information: [http://www.doingbusiness.org/data/exploretopics/trading-across-borders#close](http://www.doingbusiness.org/data/exploretopics/trading-across-borders#close)
World Bank Enterprise Surveys

Overview

- The Enterprise Surveys began in 2002 and are firm-level surveys that cover a broad focus on the many factors that shape the business environment.
- The World Bank has surveyed over 125,000 firms in 139 countries.
- For most countries, an Enterprise Survey is conducted about every 3-4 years.
- The survey questions related to trade facilitation areas include:
  - Days to clear a direct exports through customs
  - Days to clear imports from customs
  - Percent of firms identifying customs and trade regulations as major constraint

Why is it useful?

- Data available at the firm-level.
- Possible to find information on informal trade regulations (e.g. firms that do not comply with regulations are also included in the survey).

Limitations

- Not possible to track specific firms over time.
- Data collection period may vary across countries.
- Not all emerging economies represented.

Methodology

- The mode of data collection is face-to-face interviews.
- Typically 1200-1800 interviews are conducted in larger economies, 360 interviews are conducted in medium size economies, and for smaller economies, 150 interviews take place*.
- The manufacturing and services sectors are the primary business sectors of interest. This corresponds to firms classified with ISIC codes 15-37, 45, 50-52, 55, 60-64, and 72.
- Only indicators created from surveys following the Enterprise Survey Global methodology are comparable across countries and survey years.

(*) The Sampling note provides the rationale for these sample sizes. For more information: http://www.enterprisesurveys.org/~/media/GIAWB/EnterpriseSurveys/Documents/Misc/Indicator-Descriptions.pdf
Days to clear a direct exports through customs

Definition:

- Average number of days to clear direct exports through customs. Prompt the respondent to think of all shipments sent to the main point of exit and estimate an average time it took from the time the shipment arrived to the time they left that point of exit.

Clarifications:

- The purpose of this question is to determine the efficiency of customs in clearing goods for export.
- The main point of exit is the last domestic location from which the goods leave the country. Whenever different ports of exit are used this question refers to the port where most goods exit defined in terms of consignment value (not physical units).
- The concept goods cleared customs refers to the time it takes to obtain all clearances required from the moment the goods arrived at their point of exit until the moment they satisfy the requirement of the clearance procedures at the custom office.

D.4 In fiscal year [insert last complete fiscal year], when this establishment exported goods directly, how many days did it take on average from the time this establishment’s goods arrived at their main point of exit (e.g., port, airport) until the time these goods cleared customs?

<table>
<thead>
<tr>
<th>Average number of days to clear customs</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than one day</td>
<td>1</td>
</tr>
<tr>
<td>Don't know (spontaneous)</td>
<td>-9</td>
</tr>
</tbody>
</table>

Term used to classified this question within the sales and supplies section *.
Days to clear imports from customs

Definition:

- Average number of days to clear imports from customs. Prompt respondent to think of various shipments destined to the establishment that originated from abroad, and to estimate an average of the time it took when the shipment arrived to the country’s point of entry to the time the establishment was allowed to claim them and begin domestic transport.

Clarifications:

- The purpose of this question is to determine the efficiency of customs clearance imports.
- The concept goods cleared includes all clearances required from the moment the goods arrived at their point of entry until the moment they satisfy the requirement of the clearance procedures at the customs office and can be picked up. It does not include time spent on transportation to reach the point of entry.

D.14 In fiscal year [insert last complete fiscal year], when this establishment imported material inputs or supplies, how many days did it take on average from the time these goods arrived to their point of entry (e.g. port, airport) until the time these goods could be claimed from customs?

<table>
<thead>
<tr>
<th>Average number of days to clear customs</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than one day</td>
<td>1</td>
</tr>
<tr>
<td>Don’t know (spontaneous)</td>
<td>-9</td>
</tr>
</tbody>
</table>

Term used to classified this question within the sales and supplies section. Manufacturing question *.

(*) For more information:
Percent of firms identifying customs and trade regulations as major constraint

Definition:
• Percentage of firms identifying customs and trade regulations as a “major” or “very severe” obstacle.

Clarifications:
• This is an opinion question that should not be explained.
• The manager should be given a card with the different alternatives for degree of obstacle (from 0 to 4).

D.30 Using the response options on the card: To what degree is Transport an obstacle to the current operations of this establishment? SHOW CARD 8

Using the response options on the card: To what degree is Customs and Trade Regulation an obstacle to the current operations of this establishment? SHOW CARD 8

<table>
<thead>
<tr>
<th></th>
<th>No obstacle</th>
<th>Minor obstacle</th>
<th>Moderate obstacle</th>
<th>Major obstacle</th>
<th>Very Severe Obstacle</th>
<th>Don’t Know (spontaneous)</th>
<th>Does Not Apply (spontaneous)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>-9</td>
<td>-7</td>
</tr>
<tr>
<td>Customs and</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>-9</td>
<td>-7</td>
</tr>
<tr>
<td>trade</td>
<td>regulations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Term used to classified this question within the sales and supplies section*.

(*)For more information:
**OECD Trade Facilitation Indicators**

**Overview**

• The [OECD Trade Facilitation Indicators (TFIs)](http://www.oecd.org/tad/facilitation/indicators.htm) cover the full spectrum of Customs and other regulatory trade procedures at the border included in the WTO Trade Facilitation Agreement (TFA).
• 133 variables, organised by 11 policy dimensions: Information availability; Consultations; Advance rulings; Appeal procedures; Fees and charges; Documentation requirements; Automation of border procedures; Streamlining of border processes; Domestic border agency cooperation; Cross-border agency cooperation; Governance and Impartiality
• They were first launched in 2013 and are updated every two years. The current (2017) dataset covers 163 countries.

**Why is it useful?**

• Precisely targeted for monitoring and benchmarking country performance on implementation of specific trade facilitation measures
• Can be used for assessing the impact of specific trade facilitation measures on trade flows, trade costs, resource allocation and welfare.
• Based on factual information, not perception
• Two interactive tools allow users to compare country performance across the 11 TFIs and to discover the key measures driving the performance of a selected country

**Methodology**

• The data on the OECD TFIs are gathered through a questionnaire replied by the relevant administrations and by carriers with worldwide presence, and cross-checked against publicly available sources
• They are then verified through each concerned country’s WTO and Customs administrations
• Variables follow a scoring from 0 (lowest performance) to 2 (highest performance) (percentile ranking is used where no “natural” thresholds can be identified, i.e. where variables are numerical in nature)
• The indicators are the simple average of the scores for each variable composing them

**Limitations**

• Trade and transport infrastructure or trade-related services are not covered.
• Because of the level of detail, data on some of the variables are not available for every country in the database.

For more information: [http://www.oecd.org/tad/facilitation/indicators.htm](http://www.oecd.org/tad/facilitation/indicators.htm)
OECD Trade Facilitation Indicators (TFIs)

OECD Trade Facilitation Indicators: eleven policy dimensions

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Information Availability</td>
<td>Enquiry points; publication of trade information, including on Internet; transparency of required documentation; user manuals; available legislation</td>
</tr>
<tr>
<td>(b) Involvement of the Trade Community</td>
<td>Structures for consultations; established guidelines for consultations; publications of drafts; existence of notice-and-comment frameworks</td>
</tr>
<tr>
<td>(c) Advance Rulings</td>
<td>Prior statements by the administration to requesting traders concerning the classification, origin, valuation method, etc., applied to specific goods at the time of importation; the rules and process applied to such statements</td>
</tr>
<tr>
<td>(d) Appeal Procedures</td>
<td>The possibility and modalities to appeal administrative decisions by border agencies</td>
</tr>
<tr>
<td>(e) Fees and Charges</td>
<td>Disciplines on the fees and charges imposed on imports and exports; transparency and regular review of fees and charges; disciplines on transparency and implementation of penalties systems</td>
</tr>
<tr>
<td>(f) Formalities – Documents</td>
<td>Acceptance of copies, simplification of trade documents; harmonisation in accordance with international standards</td>
</tr>
<tr>
<td>(g) Formalities – Automation</td>
<td>Electronic exchange of data; use of automated risk management; automated border procedures; electronic payments; automated pre-arrival processing; digital signatures</td>
</tr>
<tr>
<td>(h) Formalities – Procedures</td>
<td>Streamlining of border controls; single submission points for all required documentation (single windows); post-clearance audits; authorised operators; measures on perishable goods; risk management systems; expedited shipments</td>
</tr>
<tr>
<td>(i) Internal Co-operation</td>
<td>Control delegation to Customs authorities; co-operation between various border agencies of the country</td>
</tr>
<tr>
<td>(j) External Co-operation</td>
<td>Co-operation with neighbouring and third countries</td>
</tr>
<tr>
<td>(k) Governance and Impartiality</td>
<td>Customs structures and functions; accountability; ethics policy</td>
</tr>
</tbody>
</table>

For more information: [http://www.oecd.org/tad/facilitation/indicators.htm](http://www.oecd.org/tad/facilitation/indicators.htm)
2017 state of play: a glance at selected income groups and regions

For more information: [http://www.oecd.org/tad/facilitation/indicators.htm](http://www.oecd.org/tad/facilitation/indicators.htm)
OECD Trade Facilitation Indicators (TFIs)

Interactive tools: Compare your Country

- users can access individual country profiles which display an overview of trade facilitation performance
- enables the comparison, in a dynamic way, of a selected country with other countries belonging to the same income group or region as the selected country
- visualise progress made by the selected country since 2012 across all TFI areas

For more information: [http://www.oecd.org/tad/facilitation/indicators.htm](http://www.oecd.org/tad/facilitation/indicators.htm)
Interactive tools: **Policy Simulator**

- provides an **overview** of the indicators and the **key measures** driving the **performance** of a selected country and allows the comparison of the selected country with other countries
- allows for the **simulation** of potential **policy reforms**

For more information: [http://www.oecd.org/tad/facilitation/indicators.htm](http://www.oecd.org/tad/facilitation/indicators.htm)
United Nations Global Survey on Trade Facilitation and Paperless Trade Implementation

Overview
- The UNRCs Global Survey on Trade Facilitation and Paperless Trade Implementation is conducted by UN Regional Commissions (UNRCs) in collaboration with sub/regional and global partners.
- The survey is forward looking and covers 38 trade facilitation and paperless trade measures categorized into four groups:
  - General Trade Facilitation measures (WTO TFA)
  - Paperless Trade measures
  - Cross-border Paperless Trade measures
  - Transit Facilitation measures
- Conducted every 2 years, it covers more than 119 countries across 8 regions worldwide, including 44 countries from Asia and the Pacific.

Why is it useful?
- The Survey has covers implementation of paperless trade and digital trade facilitation measures, in addition to key WTO TFA measures.
- Based on facts rather than perception.
- Also covers implementation of emerging and/or sectoral trade facilitation issues (in 2017: TF for SMEs; TF for agriculture).
- Full dataset available for advanced analysis and benchmarking.

Methodology
- The data collection is divided into 3-step process:
  - Step 1: Data submission by in-country public and private sector experts through offline and online questionnaires.
  - Step 2: Data validation based on published and unpublished information (plus face-to-face or telephone interviews as needed), in collaboration with sub/regional and global partners involved in delivery of technical assistance on trade facilitation.
  - Step 3: Data verification by governments.
- For transparency, the full dataset is made available online.

Limitations
- Global data only available for 2015 and 2017 (Asia-Pacific data available since 2013).

For more information: http://www.unescap.org/sites/default/files/Global%20Report%20Final%2020151016.pdf
## General Trade Facilitation measures

### Indicators

<table>
<thead>
<tr>
<th>Trade facilitation measures (and question No. ) in the questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Publication of existing import-export regulations on the Internet</td>
</tr>
<tr>
<td>3. Stakeholder consultation on new draft regulations (prior to their finalization)</td>
</tr>
<tr>
<td>4. Advance publication/notification of new regulation before their implementation (e.g., 30 days prior)</td>
</tr>
<tr>
<td>5. Advance ruling (on tariff classification)</td>
</tr>
<tr>
<td>9. Independent appeal mechanism (for traders to appeal Customs and other relevant trade control agencies’ rulings)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Five measures related to Articles 1 through 4 of the WTO TFA and GATT X.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Risk management (as a basis for deciding whether a shipment will or will not be physically inspected)</td>
</tr>
<tr>
<td>7. Pre-arrival processing</td>
</tr>
<tr>
<td>8. Post-clearance audit</td>
</tr>
<tr>
<td>10. Separation of Release from final determination of customs duties, taxes, fees and charges</td>
</tr>
<tr>
<td>11. Establishment and publication of average release times</td>
</tr>
<tr>
<td>12. Trade facilitation measures for authorized operators</td>
</tr>
<tr>
<td>13. Expedited shipments</td>
</tr>
<tr>
<td>14. Acceptance of paper or electronic copies of supporting documents required for import, export or transit formalities.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Eight measures related to Articles 6, 7, 9 and 10 of the WTO TFA and GATT VIII.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Establishment of a national trade facilitation committee or similar body</td>
</tr>
<tr>
<td>31. Cooperation between agencies on the ground at the national level</td>
</tr>
<tr>
<td>32. Government agencies delegating controls to Customs authorities</td>
</tr>
<tr>
<td>33. Alignment of working days and hours with neighboring countries at border crossings</td>
</tr>
<tr>
<td>34. Alignment of formalities and procedures with neighboring countries at border crossings</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Three measures related to Art 8 and 23 of the WTO TFA</th>
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</thead>
<tbody>
<tr>
<td>31. Cooperation between agencies on the ground at the national level</td>
</tr>
<tr>
<td>32. Government agencies delegating controls to Customs authorities</td>
</tr>
<tr>
<td>33. Alignment of working days and hours with neighboring countries at border crossings</td>
</tr>
</tbody>
</table>

General Trade Facilitation measures (II)

Example 1: Transparency measures

Example 2: Formalities measures

Example 3: Institutional arrangement and cooperation measures

Paperless Trade measures

Overview:

The measures examined the use and application of modern information and communications technologies (ICT) to trade formalities ranging from availability of internet connections at border-crossings and customs automation to full-fledged electronic single window facilities.

Trade facilitation measures (and question No. ) in the questionnaire:

15. Electronic/Automated Customs System established (e.g., ASYCUDA)
16. Internet connection available to Customs and other trade control agencies at border-crossings
17. Electronic Single Window System
18. Electronic submission of Customs declarations
19. Electronic Application and Issuance of Trade Licenses
20. Electronic Submission of Sea Cargo Manifests
21. Electronic Submission of Air Cargo Manifests
22. Electronic Application and Issuance of Preferential Certificate of Origin
23. E-Payment of Customs Duties and Fees
24. Electronic Application for Customs Refunds

Example:
Paperless Trade measures

Cross-border Paperless Trade measures

Overview:

Six trade facilitation measures are categorized as cross-border paperless trade measures. Two of the measures, laws and regulations for electronic transactions and recognition of trade-related data and documents. The other four measures relate to the implementation of systems enabling the actual exchange of electronic trade-related data and documents across borders.

Trade facilitation measures (and question No. ) in the questionnaire:

25. Laws and regulations for electronic transactions are in place (e.g. e-commerce law, e-transaction law)
26. Recognized certification authority issuing digital certificates to traders to conduct electronic transactions
27. Engagement of the country in trade-related cross-border electronic data exchange with other countries
28. Certificate of Origin electronically exchanged between your country and other countries
29. Sanitary and Phytosanitary Certificate electronically exchanged between your country and other countries
30. Banks and insurers in your country retrieving letters of credit electronically without lodging paper-based documents

Example:
Cross-border Paperless Trade measures

Transit Facilitation measures

Overview:

Three trade facilitation measures related specifically to transit facilitation and WTO TFA Article 11 on Freedom of Transit*. The intent to these measures is to reduce all the formalities associated with traffic in transit.

Trade facilitation measures (and question No.) in the questionnaire:

- 35. Transit facilitation agreement(s) with neighboring country (ies)
- 36. Customs Authorities limit the physical inspections of transit goods and use risk assessment
- 37. Supporting pre-arrival processing for transit facilitation
- 38. Cooperation between agencies of countries involved in transit

Example: Transit Facilitation measures

(*) These measures are not directly applicable to all countries as some countries are unlikely to see any traffic in transit in their territory. For more information: http://www.unescap.org/sites/default/files/Global%20Report%20Final%2020151016.pdf
World Bank Logistic Performance Index (LPI)

Overview
- The Logistics Performance Index (LPI), launched in 2007, is an interactive benchmarking tool created to help countries identify the challenges and opportunities they face in their performance on trade logistics and what they can do to improve their performance.
- The index is conducted every 2 years and ranks 160 countries on the efficiency of international supply chains.
- The LPI is based on a worldwide survey of logistics professionals on the ground, providing feedback on the logistics friendliness of the countries in which they operate and those with which they trade.
- It offers two different perspectives:
  - International LPI
  - Domestic LPI

Why is it useful?
- Possible to receive feedback from trading partners.
- Both qualitative and quantitative assessments of a country by logistics professionals.
- Easy to identify improvements along the supply chain.

Methodology
International LPI:
- Each survey respondent rates eight overseas markets on six core components of logistic performance.
- The index is the weighted average of the country scores on the six key dimensions*.

Domestic LPI:
- Respondents provide qualitative and quantitative information on the logistics environment in the country where they work.
- Country scores are calculated taking a geometric average in levels whereas scores for regions, income groups, and LPI quintiles are simple averages of the relevant country scores.

Limitations
- The experience of international freight forwarders might not represent the broader logistics environment in poor countries, which often rely on traditional operators.
- For landlocked countries and small island states, the LPI might reflect access problems outside the country assessed.

(*) See methodology and Connecting to Compete 2016 report for more information.
International Logistic Performance Index (LPI)

Provides qualitative evaluations of a country by its trading partners – logistics professionals working outside the country.

Six dimensions of trade*

- **Customs**
  - The efficiency of customs and border clearance.

- **Infrastructure**
  - The quality of trade and transport infrastructure.

- **International shipments**
  - The ease of arranging competitively priced shipments.

- **Logistics competence**
  - The competence and quality of logistics services.

- **Tracking & tracing**
  - The ability to track and trace consignments.

- **Timeliness**
  - The frequency with shipments reach consignees within scheduled or excepted delivery times.

Example:
Germany 2016

World Bank Domestic Logistic Performance Index (LPI)

Domestic LPI: Environment and institutions

Questions

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Fees and Charges</td>
<td>“Based on your experience in international logistics, please select that best describe the operational logistics in your country of work.”</td>
</tr>
<tr>
<td>Quality of Infrastructure</td>
<td>“Evaluate the quality of trade and transport related infrastructure (e.g. ports, roads, airports, information technology) in your country of work.”</td>
</tr>
<tr>
<td>Competence and Quality of Services</td>
<td>“Evaluate the competence and quality of service delivered by the following in your country of work.”</td>
</tr>
<tr>
<td>Efficiency of Processes</td>
<td>“Evaluate the efficiency of the following in your country of work.”</td>
</tr>
<tr>
<td>Sources of Major Delays</td>
<td>“How often in your country of work, you experience[...]”</td>
</tr>
<tr>
<td>Changes in the Logistics Environments Since 2013</td>
<td>“Since 2011, have the following factors improved in your country of work.”</td>
</tr>
</tbody>
</table>

Availability of Qualified Personnel

Availability (from very high to very low) of qualified personnel in four groups of logistics personnel: (i) Operations staff, (ii) Administrative staff, (iii) Logistics supervisors and (iv) logistics managers.

(*) See questionnaire for specific information about questions. (***) Factors are: customs, other border related procedures, quality of trade and transport related to infrastructure, quality of telecommunications/IT related to infrastructure, quality of private logistics services, regulation related to logistics and solicitation of informal payments.
## Domestic LPI: Performance

- Export time and cost/ Port or airport supply chain
- Export time and cost/ Land supply chain
- Import time and cost/ Port or airport supply chain
- Import time and cost/ Land supply chain
- Shipments meeting quality criteria (%)
- Number of agencies – exports
- Number of agencies – imports
- Number of documents – exports
- Number of documents – imports
- Clearance time without physical inspection (days)

- Clearance time with physical inspection (days)
- Physical inspection (%)
- Multiple inspection (%)
- Declarations submitted and processed electronically and on-line (%)
- Importers using a licensed Customs Broker (%)
- Able to choose the location of the final clearance (%)
- Goods released pending customs clearance (%)

Overview

Liner Shipping Connectivity Index (LSCI):
- This index captures how well countries are connected to global liner shipping networks. The index base year is 2004.
- Data is available from 2004 to 2016 and for 237 economies.
- The LSCI is derived from five components.

Liner Shipping Bilateral Connectivity Index (LSBCI):
- This index is based on a bilateralization transformation of the LSCI.
- The index presents annual data from 2006 to 2015 and covers 157 economies.
- The LSBCI is generated from five components.

Why is it useful?

• Meaningful data on bilateral trade facilitation for developing economies.
• Very detail information on maritime transport.

Limitations

• Data on trade facilitation are drawn from research by private and international agencies. Because of different backgrounds, values, and personalities, those surveyed may evaluate the same situation differently.

Methodology

LSCI:
- Step 1: For each of the five components, a country’s value is divided by the maximum value of that component in 2004, and for each country, the average of the five components is calculated.
- Step 2: This average is then divided by the maximum average for 2004 and multiplied by 100.

LSBCI:
- Step 1: Normalization of the five components using a standard formula.
- Step 2: Taking the simple average of the five normalized components.
- The LSBCI can only takes values between 0 (minimum) and 1 (maximum).

(*) To know the five components used in the LSCI check here and click on icon “i” for more information.
(**) To know the five components used in the LSBCI check here and click on icon “i” for more information.
Five components of the LSCI

- Number of ships
- Total container-carrying capacity of those ships
- Maximum vessel size
- Number of services
- Number of companies that deploy container ships on services from and to a country’s ports

**Example:** Liner shipping connectivity index (LSCI) per country.

<table>
<thead>
<tr>
<th></th>
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<td>0.40</td>
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<tr>
<td>Bahamas</td>
<td>17.49</td>
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<td>16.19</td>
<td>16.45</td>
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<td>27.06</td>
<td>26.41</td>
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<td>27.69</td>
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</tr>
<tr>
<td>Bahrain</td>
<td>5.39</td>
<td>4.34</td>
<td>4.44</td>
<td>5.99</td>
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<td>8.04</td>
<td>7.83</td>
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<td>17.86</td>
<td>17.90</td>
<td>27.01</td>
<td>26.72</td>
<td>26.48</td>
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</table>

Five components of the LSBCI

<table>
<thead>
<tr>
<th>Transshipments</th>
<th>Common direct connections</th>
<th>Geometric mean of direct connections</th>
<th>Level of competition in shipping services</th>
<th>Ships size</th>
</tr>
</thead>
<tbody>
<tr>
<td>The minimum number of transshipments required to get from country A to country B.</td>
<td>The number of direct connections common to both country A and country B.</td>
<td>The geometric mean of the number of direct connections of country A and of country B.</td>
<td>The level of competition on services that connect country A to country B.</td>
<td>The size of the largest ships on the weakest route connecting country A to country B.</td>
</tr>
</tbody>
</table>

Example: Liner shipping bilateral connectivity index (LSBCI) per country.

For more information: [http://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=96618](http://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=96618)
Overview

- Co-published by the World Economic Forum and the Global Alliance for Trade Facilitation, the database features 136 economies based on the capacity to facilitate the flow of goods over borders and to their destination.
- The Global Enabling Trade Report has been published since 2008, initially on an annual basis, and biennially since 2010.
- The database captures the various dimensions of enabling trade, breaking them into four overall areas, the subindexes:
  - Market access*
  - Border administration
  - Infrastructure
  - Operating environment*

Why is it useful?

- The scope of the database is much broader than trade facilitation as conceived by most international organizations, enabling policy makers to find information about related trade facilitation indicators.
- Aggregation of indicators sourced from various organizations.
- Very detail indicators for trade and transport infrastructure.

Methodology

- In 2014, the Enabling Trade report went through a major revision in order to incorporate newly available data and streamline the structure**.
- The computation of the Enabling Trade Index (ETI) is based on successive aggregations of the scores from the indicator level all the way up to the overall ETI score***.
- The 57 indicators used in the (ETI) 2016 are sourced from various organizations including the Global Express Association, the International Trade Centre, UNCTAD, the World Bank, and the World Trade Organization.
- 22 indicators, accounting for the 36 percent of the ETI, are derived from the World Economic Forum’s Executive Opinion Survey (EOS).

Limitations

- Comparability of the results (e.g. 2016 results are not fully comparable with the results published in 2014).
- The new data added to the report from the World Economic Forum only represents 36% of the ETI.

(*) Not discussed in this handbook, for more information see http://www3.weforum.org/docs/WEF_GETR_2016_report.pdf. (**) See changes in methodology. (***)) See Appendix B: Composition and computation of the ETI for specific weights (%) within immediate parent category.
Border administration

Overview:

• This Border administration subindex assesses the quality, transparency and efficiency of border administration of a country. The subindex is composed of single pillar:

  • **PILLAR 3: Efficiency and transparency of border administration (13 indicators).** The pillar assesses the efficiency and transparency of border administration, as measured by the availability and quality of information provided by border agencies and the prevalence of corruption.

    • Customs services index (1 indicator)
    • Efficiency of the clearance process (1 indicator)
    • Border compliance: Time and cost to export/import (4 indicators)
    • Documentary compliance: Time and cost to export/import (4 indicators)
    • Irregular payments and bribes: imports/exports (1 indicator)
    • Time predictability of import procedures (1 indicator)
    • Customs transparency index (1 indicator)

Example: **Border administration, Pillar 3**

Efficiency and transparency of border administration: Customs services index

Customs services index:

- Index of extent of quality and comprehensiveness of services provided by customs authorities and related agencies, (0=worst, 1=best).
- This indicator is based on 17 survey questions taken from the *Global Express Association (GEA) Customs Capabilities Reports*, which evaluate the quality and comprehensiveness of services offered by customs and related agencies.
- The service included: clearance of shipments via electronic data interchange; separation of physical release of goods from fiscal control; full time (24/7 days a week) automated processing; customs working hours adapted to commercial needs; fee for services conducted during normal service hours; fee for services conducted during normal service hours; inspection and release of goods arriving by air by the operator’s facility; automated risk assessment as primary basis for physical examination of shipments; multiple inspections (inspections by agencies other than customs) and the promptness of those inspections; exemptions from full customs formalities for shipments of minimal value; exemptions from duties and taxes for shipments of minimal value; clearance of shipments by a third party; appeal of customs decisions to a higher level or an independent tribunal; and use of reference prices or arbitrary uplifts to invoice values.

**Example:** Customs services index

Border administration: Efficiency and transparency of border administration (II)

Irregular payments and bribes:
- How common is it for companies to make undocumented extra payments or bribes in connection with imports and exports (1=very common, 7=never occurs).
- This indicator is derived from the Executive Opinion Survey (EOS), 2015 and 2016 editions.
- The Executive Opinion Survey (EOS) is a survey of a representative sample of business leaders in their respective countries. Two-thirds of the data used in the Global Competitiveness Index are derived from the Executive Opinion Survey and one-third is derived from international sources’ statistics. Respondent numbers to the EOS have increased every year and is currently over 13,500 in 142 countries.

Example: Irregular payments in exports and imports

Time predictability of imports:
- How much does the time required for border clearance of imported goods fluctuate? (1=fluctuates significantly, 7=hardly fluctuates at all).
- This indicator is derived from the Executive Opinion Survey (EOS), 2015 and 2016 editions.

Example: Time predictability of import procedures

Customs transparency index:

- Index of transparency of procedures and regulations related to customs clearance (0=worst, 1=best).
- This indicator is based on 7 survey questions taken from the *Global Express Association (GEA) Customs Capabilities Reports*, which evaluate the overall transparency of the procedures and regulations related to customs clearance.

Example: *Customs transparency index*

Overview:

- This *Infrastructure subindex* assesses the availability and quality of transport infrastructure of a country, associated services, and communication infrastructure, necessary to facilitate the movement of goods within the country and across the border. The Infrastructure subindex is composed of three pillars:

  - **PILLAR 4: Availability and quality of transport infrastructure (7 indicators).** This pillar measures the availability and quality of domestic infrastructure for each of the four main modes of transport: road, air, railroad and sea port infrastructures. Air connectivity and sea line connectivity are also assessed.

  - **PILLAR 5: Availability and quality of transport services (6 indicators).** A necessary complement to the previous one, this pillar assesses the availability and quality of transport services, including the presence and competencies of shipping and logistics companies in the country, and the ease, cost and timeliness of shipment. In addition, this pillar includes a measure of postal efficiency.

  - **PILLAR 6: Availability and use of ICTs (7 indicators).** This pillar evaluates the availability and quality of information and communication technologies (ICTs) in a country, as proxied by the use of mobile telephony and Internet by the population at large, by companies for business transactions, and by the government for interacting with citizens. It also takes into account the quality of Internet access, as broadband access has become the norm to fully leverage the potential of the Internet.

For more information see Technical Notes and Sources from the Global Enabling Trade Report 2016:
Infrastructure: Transport infrastructure

Indicators:

- Available airline seat kilometers
- Quality of air transport infrastructure
- Quality of railroad infrastructure
- Liner Shipping Connectivity Index
- Quality of port infrastructure
- Road quality index
- Quality of roads

Example: Availability and quality of transport infrastructure

Available airline seat kilometers:

- Scheduled available international airline seat kilometers per week originating in country (in millions).
- This indicator is derived from the International Air Transport Association, and measures the total passenger-carrying capacity of all scheduled international flights originating in a country. It is computed by taking the number of seats available on each flight multiplied by the flight distance in kilometers, summing the result across all scheduled flights in a week during January (winter schedule) and July (summer schedule) 2013, and taking the average capacity of the two weeks.

Example: Available airline seat kilometers (millions)

<table>
<thead>
<tr>
<th>Rank / 136</th>
<th>Country / Economy</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>United States</td>
<td>13928.6</td>
</tr>
<tr>
<td>2</td>
<td>United Kingdom</td>
<td>7148.1</td>
</tr>
<tr>
<td>3</td>
<td>United Arab Emirates</td>
<td>5966.1</td>
</tr>
<tr>
<td>4</td>
<td>China</td>
<td>5192.5</td>
</tr>
<tr>
<td>5</td>
<td>Germany</td>
<td>5052.9</td>
</tr>
</tbody>
</table>

Quality of air transport:

- How is the quality (extensiveness and condition) of transport infrastructure for air transport (1=extremely underdeveloped, among the worst in the world; 7=extensive and efficient, among the best in the world).
- This indicator is derived from the Executive Opinion Survey (EOS), 2015 and 2016 editions.

Example: Quality of air transport infrastructure

<table>
<thead>
<tr>
<th>Rank / 136</th>
<th>Country / Economy</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Singapore</td>
<td>6.9</td>
</tr>
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<td>2</td>
<td>United Arab Emirates</td>
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<td>Hong Kong SAR</td>
<td>6.6</td>
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<td>4</td>
<td>Netherlands</td>
<td>6.5</td>
</tr>
<tr>
<td>5</td>
<td>Finland</td>
<td>6.2</td>
</tr>
</tbody>
</table>

For more information see Technical Notes and Sources from the Global Enabling Trade Report 2016:
Quality of railroad infrastructure:

- How is the quality (extensiveness and condition) of transport infrastructure for railroads (1=extremely underdeveloped, among the worst in the world; 7=extensive and efficient, among the best in the world).
- The N/Appl. is used for economies where the railroad network totals less than 50 kilometers. Assessment of the existence of a network was conducted by the World Economic Forum based on various sources.
- This indicator is derived from the Executive Opinion Survey (EOS), 2015 and 2016 editions.

Quality of port infrastructure:

- How is the quality (extensiveness and condition) of transport infrastructure for seaports (for landlocked countries - please assess access to seaports) (1=extremely underdeveloped, among the worst in the world; 7=extensive and efficient, among the best in the world).
- This indicator is derived from the Executive Opinion Survey (EOS), 2015 and 2016 editions.

Example: Quality of railroad infrastructure

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<th>Score</th>
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<tbody>
<tr>
<td>1</td>
<td>Japan</td>
<td>6.7</td>
</tr>
<tr>
<td>2</td>
<td>Switzerland</td>
<td>6.6</td>
</tr>
<tr>
<td>3</td>
<td>Hong Kong SAR</td>
<td>6.4</td>
</tr>
<tr>
<td>4</td>
<td>France</td>
<td>5.8</td>
</tr>
<tr>
<td>5</td>
<td>Singapore</td>
<td>5.7</td>
</tr>
</tbody>
</table>

Example: Quality of port infrastructure

<table>
<thead>
<tr>
<th>Rank / 135</th>
<th>Country / Economy</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Netherlands</td>
<td>6.8</td>
</tr>
<tr>
<td>2</td>
<td>Singapore</td>
<td>6.7</td>
</tr>
<tr>
<td>3</td>
<td>United Arab Emirates</td>
<td>6.4</td>
</tr>
<tr>
<td>4</td>
<td>Hong Kong SAR</td>
<td>6.4</td>
</tr>
<tr>
<td>5</td>
<td>Panama</td>
<td>6.3</td>
</tr>
</tbody>
</table>

**Road Quality Index:**

- Average speed and straightness of a driving itinerary connecting the 10 or more largest cities that together account for at least 15 percent of the economy’s total population (1=worst, 7=best)
- The Road Quality Index developed by the World Economic Forum comprises two elements: a measure of the average speed of a driving itinerary connecting the 10 or more largest cities in an economy accounting for at least 15 percent of the economy’s total population; and a measure of road straightness. The itinerary was not optimized and connects the cities from the largest to the smallest. Any leg involving a ferry is excluded from the average speed calculation.

**Quality of roads:**

- In your country, how is the quality (extensiveness and condition) of transport infrastructure for roads (for landlocked countries - please assess access to seaports) (1=extremely underdeveloped, among the worst in the world; 7=extensive and efficient, among the best in the world).
- This indicator is derived from the Executive Opinion Survey (EOS), 2015 and 2016 editions.

**Example: Road Quality Index**

<table>
<thead>
<tr>
<th>Rank / 129</th>
<th>Country / Economy</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>United States</td>
<td>7.0</td>
</tr>
<tr>
<td>2</td>
<td>Saudi Arabia</td>
<td>7.0</td>
</tr>
<tr>
<td>3</td>
<td>Spain</td>
<td>6.9</td>
</tr>
<tr>
<td>4</td>
<td>Sweden</td>
<td>6.8</td>
</tr>
<tr>
<td>5</td>
<td>South Africa</td>
<td>6.7</td>
</tr>
</tbody>
</table>

**Example: Quality of roads**

<table>
<thead>
<tr>
<th>Rank / 136</th>
<th>Country / Economy</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>United Arab Emirates</td>
<td>6.5</td>
</tr>
<tr>
<td>2</td>
<td>Singapore</td>
<td>6.3</td>
</tr>
<tr>
<td>3</td>
<td>Hong Kong SAR</td>
<td>6.2</td>
</tr>
<tr>
<td>4</td>
<td>Netherlands</td>
<td>6.1</td>
</tr>
<tr>
<td>5</td>
<td>Japan</td>
<td>6.1</td>
</tr>
</tbody>
</table>


Infrastructure: Transport services

Indicators:

- **International Logistic Performance Index (LPI)**
  - i. Ease and affordability of shipment
  - ii. Logistic competence
  - iii. Tracking and tracing ability
  - iv. Timeliness of shipments to destination

- **Postal service efficiency**

- **Efficiency of transport mode change**

Example: *Availability and quality of transport services*

For more information see Technical Notes and Sources from the Global Enabling Trade Report 2016:
Postal service efficiency:

- How efficient is the postal system? (1=not efficient at all, 7=extremely efficient).
- This indicator is derived from the Executive Opinion Survey (EOS), 2015 and 2016 editions.

Efficiency of transport mode change:

- How efficient are changes between different modes of transport for cargo (e.g. from port to rail or airport to roads? (1=extremely inefficient, 7=extremely efficient).
- This indicator is derived from the Executive Opinion Survey (EOS), 2015 and 2016 editions.

**Example: Postal service efficiency**

<table>
<thead>
<tr>
<th>Rank / 131</th>
<th>Country / Economy</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Japan</td>
<td>6.8</td>
</tr>
<tr>
<td>2</td>
<td>Hong Kong SAR</td>
<td>6.6</td>
</tr>
<tr>
<td>3</td>
<td>Switzerland</td>
<td>6.5</td>
</tr>
<tr>
<td>4</td>
<td>Finland</td>
<td>6.4</td>
</tr>
<tr>
<td>5</td>
<td>Singapore</td>
<td>6.4</td>
</tr>
</tbody>
</table>

**Example: Efficiency of transport mode change**

<table>
<thead>
<tr>
<th>Rank / 136</th>
<th>Country / Economy</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hong Kong SAR</td>
<td>6.3</td>
</tr>
<tr>
<td>2</td>
<td>Singapore</td>
<td>6.3</td>
</tr>
<tr>
<td>3</td>
<td>Netherlands</td>
<td>6.0</td>
</tr>
<tr>
<td>4</td>
<td>United Arab Emirates</td>
<td>5.9</td>
</tr>
<tr>
<td>5</td>
<td>Finland</td>
<td>5.9</td>
</tr>
</tbody>
</table>

Infrastructure: Availability and use of ICTs

Indicators:

- Mobile-cellular telephone subscriptions
- Internet users
- Fixed-broadband Internet subscriptions
- Mobile-broadband subscriptions
- ICT use for biz-to-biz transactions
- Internet use for biz-to-consumer transactions
- Government Online Service Index

Example: Availability and use of ICTs

### Overview

**World Bank Services Trade Restrictions Index:**
- The [database](http://iresearch.worldbank.org/servicetrade/Annex_Table4&5.pdf) collects information through survey questionnaires on applied services trade policies across 103 countries, 18 services sectors, and key modes of service supply*(mode 1).
- The last update was in 2011 and the periodicity is annual. Coverage is from 2008 to 2011.

### Why is it useful?

**World Bank:**
- Possible to find cross-border information on trade related services such as banking and insurance sector.
- [Online access](http://iresearch.worldbank.org/servicetrade/Annex_Table4&5.pdf) to a summary of the key restrictions in the selected country.

### Methodology

**World Bank:**
- The [surveys questionnaire](http://iresearch.worldbank.org/servicetrade/Annex_Table4&5.pdf) are completed by local law offices.
- After the index assigns a score to a subsector-mode, the scores can be aggregated using modal weights, sector weights and country weights**.
- The index ranges from 0 (open without restrictions) to 100 (completely closed).

### Limitations

**World Bank:**
- Last year available 2011.

(*) Cross-border supply of services (mode 1), the supply of services through commercial presence(mode 3), and the temporary presence of natural persons (mode 4). (**)For more information: [http://iresearch.worldbank.org/servicetrade/Annex_Table4&5.pdf](http://iresearch.worldbank.org/servicetrade/Annex_Table4&5.pdf)
Key mode of service supply related with Trade Facilitation:

- Cross-border supply of services (mode 1)
  This mode is defined as the supply of a service from the territory of one Member into the territory of any other Member. It arises when a service crosses a national border, for example, if a consumer in country A purchases software or insurance from a provider located in country B. It would also include the purchase by a consumer in country A of transportation services – such as a train ride or flight - from a provider located in country B.

Sectors/Sub-sectors related with Trade Facilitation:

- Financial
  - Banking (available mode 1,3)
  - Insurance (available mode 1,3)

- Transport
  - Air passenger domestic (available mode 3)
  - Air passenger international (available mode 1,3)
  - Maritime shipping international (available mode 1,3)
  - Maritime auxiliary services (available mode 3)
  - Road trucking (available mode 3)
  - Railway freight (available mode 3)

OECD Services Trade Restrictiveness Index (STRI)

Overview

**OECD Service Trade Restrictiveness Index:**
- This regulatory database quantifies the degree of trade restrictiveness of existing services regulations.
- The STRI covers 40 economies, 18 service sectors and about 80% of global value trade (last publication 2014).

Why is it useful?

**OECD:**
- Recent data on cross-border regulation in trade services.

Methodology

**OECD:**
- The STRI indices takes the value from 0 (completely open) to 1 (completely closed).
- The index is derived by aggregating regulations into a composite measure of restrictiveness. For more information about scoring, weighting and aggregation see [V:Methodology for developing the STRI](http://qdd.oecd.org/subject.aspx?Subject=063bee63-475f-427c-8b50-e19bfffa7392d).

Limitations

**OECD:**
- Limited country coverage.
OECD Services Trade Restrictiveness Index (STRI)

Example 1: Service Trade Restrictions Index, overview 2015

Example 2: Australia, Service Trade Restrictiveness Index Simulator

Example 3: STRI average, maximum and minimum scores by sector, 40 countries (2014) OECD Policy Brief

For more information: http://qdd.oecd.org/subject.aspx?Subject=063bee63-475f-427c-8b50-c19bffa7392d
Beyond Aggregate Indicators and Cross-country Databases: Trade and Transport Facilitation Monitoring Mechanism (TTFMM)

- Although existing global trade facilitation performance surveys and databases provide useful information on benchmarking and raise awareness, they do not provide sufficiently detailed information to develop or update national trade and transport facilitation action plans.

- In this context, the trade and transport facilitation monitoring mechanism (TTFMM) has two key functions:
  
  i. To formulate/update and prioritize recommendations for advancing trade facilitation
  
  ii. To measure and assess progress in trade facilitation

- Underpinning TTFMM is the methodology called Business Process Analysis Plus (BPA+) which is built on the Business Process Analysis methodology, supplemented by Time Release Studies (WCO TRS) and Time-Cost-Distance (TCD) methodologies.

- It is envisaged that establishment of TTFMM would enable the countries to monitor and enhance trade facilitation on a continuous basis and in a sustainable manner (for more details see the UN/CEFACT Recommendation No. 42).