MEASURING PERFORMANCE OF TRADE FACILITATION REFORMS:

WORLD BANK GROUP METHODOLOGIES AND INDICATORS

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WBG PERFORMANCE MEASUREMENT TOOLS

I. MACRO LEVEL:
- Strategic Goals
- Doing Business
- Logistics Performance Indicators
- Enterprise Survey

II. PROJECT LEVEL:
- M&E: Indicators
- Impact: Private sector cost savings
- TFSP: TFA tracking tool
STRATEGIC GOALS

TWIN GOALS
End poverty. Share prosperity.

More, better paying jobs

Rapid private sector-led growth

Economic integration

Competitiveness

Identify new sources of growth

Lift microeconomic constraints to growth
Country demand (illustrative)

- Low private investment
- High costs to trade
- Low export competitiveness
- Competing in low value-added sectors
- Low productivity growth
- Dependence on natural resources
- High youth unemployment
- Low business entry, growth, innovation
- Institutional failures

Integrated solutions (illustrative)

T&C Offerings

- Trade
- Investment climate
- Competitive sectors
- Innovation and entrepreneurship
- Financial instruments
- Advisory services and analytics
TRADE
Trade policies and integration
Trade facilitation, border management & logistics
Trade performance | Competition policies

INVESTMENT CLIMATE
Business environment reforms
Investment policies

COMPETITIVE SECTORS
Sector policies and growth
Spatial growth and investment strategies

INNOVATION AND ENTREPRENEURSHIP
Innovation and technology
Entrepreneurship and small and medium size enterprises (SME) development

CROSS-CUTTING TOPICS
Global value chains | Connecting to markets and opportunities
Catalyzing firm productivity | Promoting green competitiveness
Private sector development in fragile and conflict-affected states
## Our results chain

### Core Global Themes
- **TRADE**
  - Trade policies & integration
  - Trade facilitation & logistics
  - Trade performance
  - Competition Policies

- **INVESTMENT CLIMATE**
  - Business environment reforms
  - Investment policies

- **COMPETITIVE SECTORS**
  - Sector policies & growth
  - Spatial growth & investment strategies

- **INNOVATION & ENTREPRENEURSHIP**
  - Innovation & technology
  - Entrepreneurship & SME development

### Country Operations | Knowledge | Global Voice

#### Illustrative Intermediate Outcomes
- **Reduced Investment Restrictions**
- **Effective Competition Policies**
- **Strengthened Public Sector Institutional Capacities**
- **More Integrated Economies**
- **Increased Value Addition of Local Suppliers**
- **Enhanced Innovation Policies & Systems**
- **Improved G2b Service (e.g., infra)**
- **Reduced Business, Investment, and Trading Costs**
- **Enhanced Public-Private Dialogue**
- **More Competitive Sectors & Spillovers from Agglomeration**
- **Improved Support Services for Innovative SMEs & Entrepreneurship**
- **Improved Skills Match**

### Outcomes
- **Improved Firm Productivity**
- **Increase Investment**
- **Improved Trade Performance**
- **Enhanced Innovation**

### Impacts
- **Growth**
- **Aggregate Productivity**
- **Jobs**
- **Rising Incomes**

### Twin Goals
- **Ending extreme poverty**
- **Boosting shared prosperity**
DOING BUSINESS
TRADING ACROSS BORDERS, NEW METHODOLOGY

Measures **time (in hours)** and **cost (in USD)** associated with the process of importing and exporting for two sets of procedures: **documentary compliance** and **border compliance**.

### Border Compliance
- Customs clearance and inspections by Customs
- Inspections by other agencies
- Port or border handling at the most widely used port or border
- Obtaining, preparing and submitting documents during clearance, inspections or border handling

### Documentary Compliance
- Obtaining, preparing and submitting documents during transport, clearance, inspections and port or border handling in the origin economy
- Obtaining, preparing and submitting documents required by the destination economy and any transit economy
- Covers all documents required by law and in practice, including electronic submission and non-shipment specific documents necessary to complete the trade
- The exact number of documents is no longer counted towards the ranking of the economy

http://www.doingbusiness.org/data/exploretopics/trading-across-borders
LOGISTICS PERFORMANCE INDICATORS (LPI)

- The LPI measures performance along the logistics supply chain within a country and offers two different perspectives: international and domestic.

- Based on a worldwide survey of freight forwarders and express carriers, providing feedback on the logistics “friendliness” of the countries in which they operate and those with which they trade.

<table>
<thead>
<tr>
<th>International LPI</th>
<th>Domestic LPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides qualitative evaluations of a country in six areas by its trading partners (i.e. professionals working outside the country)</td>
<td>Provides qualitative and quantitative evaluations of a country by logistics professionals working inside it.</td>
</tr>
<tr>
<td>Areas of evaluation:</td>
<td>Includes detailed information on the logistics environment, core logistics processes, institutions, and performance time &amp; cost data</td>
</tr>
<tr>
<td>1. Customs and border management</td>
<td></td>
</tr>
<tr>
<td>2. Infrastructure</td>
<td></td>
</tr>
<tr>
<td>3. Logistics competence and quality</td>
<td></td>
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<tr>
<td>4. International shipments</td>
<td></td>
</tr>
<tr>
<td>5. Tracking &amp; tracing</td>
<td></td>
</tr>
<tr>
<td>6. Timeliness of shipments</td>
<td></td>
</tr>
</tbody>
</table>

The LPI ranking is solely based on the International LPI.

http://lpi.worldbank.org
THE LPI IS A WELL-ESTABLISHED BENCHMARK; HOWEVER, IT DOES NOT DO EVERYTHING

- Is a measure of supply chain efficiency.
- Provides information of where a country stands and provides a basic indication of problems.
- Is not, on its own, a diagnostic tool and needs to be supported by specific tools designed to perform that function.
- Targets international supply chains, and may not fully reflect the quality of internal connectivity and logistics, especially in geographically large countries.
- Business Centric i.e. potentially an important indicator for investors making ‘location’ decisions for products requiring a short time to market.
- Mostly perception based though some data used.
- Score provides an indicator of problem areas but does not always provide a specific actionable insight for policymakers, particularly in relation to agribusiness.
An Enterprise Survey is a firm-level survey of a representative sample of an economy's private sector. The surveys cover a broad range of business environment topics including access to finance, corruption, infrastructure, crime, competition, and performance measures.

### Sub-indicators for Trade

- Days to clear imports through customs
- Days to clear exports through customs
- Percentage of firms identifying customs and trade regulations as a major constraint
- Days of inventory of main input
- Products exported directly lost due to theft (%)
- Products exported directly lost due to breakage or spoilage (%)
- Days to obtain an import license
- % of firms expected to give gifts to get an import license

[www.enterprisesurveys.org](http://www.enterprisesurveys.org)
A CLOSER LOOK AT DB 2016: EAST ASIA

**INDICATOR** | **COUNTRIES** | Cambodia (98) | Vietnam (99) | Lao PDR (108) | Myanmar (140)
--- | --- | --- | --- | --- | ---
Time to Export (Hours) | Border Compliance | 45 | 57 | 3 | 144
Time to Import (Hours) | Border Compliance | 4 | 64 | 5 | 120
Time to Export (Hours) | Documentary compliance | 132 | 83 | 216 | 144
Time to Import (Hours) | Documentary compliance | 132 | 106 | 216 | 48

TRADERS SPEND A SIGNIFICANT AMOUNT OF TIME IN DOCUMENTARY COMPLIANCE
## SNAPSHOT COMPARISON OF DB AND LPI 2016

### LPI 2016

<table>
<thead>
<tr>
<th>Country</th>
<th>Rank</th>
<th>LPI Score</th>
<th>Customs Rank</th>
<th>Customs Score</th>
<th>Infrastructure Rank</th>
<th>Infrastructure Score</th>
<th>International shipments Rank</th>
<th>International shipments Score</th>
<th>Logistics competence Rank</th>
<th>Logistics competence Score</th>
<th>Tracking &amp; tracing Rank</th>
<th>Tracking &amp; tracing Score</th>
<th>Timeliness Rank</th>
<th>Timeliness Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>1</td>
<td>4.23</td>
<td>2</td>
<td>4.12</td>
<td>1</td>
<td>4.44</td>
<td>8</td>
<td>3.86</td>
<td>1</td>
<td>4.28</td>
<td>3</td>
<td>4.27</td>
<td>2</td>
<td>4.45</td>
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<tr>
<td>Vietnam</td>
<td>64</td>
<td>2.98</td>
<td>64</td>
<td>2.75</td>
<td>70</td>
<td>2.7</td>
<td>50</td>
<td>3.12</td>
<td>62</td>
<td>2.88</td>
<td>75</td>
<td>2.84</td>
<td>56</td>
<td>3.5</td>
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<tr>
<td>Myanmar</td>
<td>113</td>
<td>2.46</td>
<td>96</td>
<td>2.43</td>
<td>105</td>
<td>2.33</td>
<td>144</td>
<td>2.23</td>
<td>119</td>
<td>2.36</td>
<td>94</td>
<td>2.57</td>
<td>112</td>
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<tr>
<td>Zambia</td>
<td>114</td>
<td>2.43</td>
<td>119</td>
<td>2.25</td>
<td>113</td>
<td>2.26</td>
<td>106</td>
<td>2.51</td>
<td>114</td>
<td>2.42</td>
<td>119</td>
<td>2.36</td>
<td>124</td>
<td>2.74</td>
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<tr>
<td>Lesotho</td>
<td>154</td>
<td>2.03</td>
<td>151</td>
<td>1.91</td>
<td>149</td>
<td>1.96</td>
<td>158</td>
<td>1.84</td>
<td>138</td>
<td>2.16</td>
<td>151</td>
<td>1.92</td>
<td>150</td>
<td>2.35</td>
</tr>
</tbody>
</table>

### DB 2016

<table>
<thead>
<tr>
<th>Country</th>
<th>Rank</th>
<th>DTF</th>
<th>Time to export (Hours)</th>
<th>Cost to Export (USD)</th>
<th>Time to Import (Hours)</th>
<th>Cost to Import (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Border compliance</td>
<td>Documentary compliance</td>
<td>Border compliance</td>
<td>Documentary compliance</td>
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<tr>
<td>Germany</td>
<td>35</td>
<td>91.77</td>
<td>36</td>
<td>1</td>
<td>345</td>
<td>45</td>
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<tr>
<td>Lesotho</td>
<td>36</td>
<td>91.69</td>
<td>4</td>
<td>3</td>
<td>150</td>
<td>90</td>
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<tr>
<td>Vietnam</td>
<td>99</td>
<td>67.15</td>
<td>57</td>
<td>83</td>
<td>309</td>
<td>139</td>
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<tr>
<td>Myanmar</td>
<td>140</td>
<td>55.05</td>
<td>144</td>
<td>144</td>
<td>432</td>
<td>140</td>
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<tr>
<td>Zambia</td>
<td>152</td>
<td>49.01</td>
<td>136</td>
<td>130</td>
<td>370</td>
<td>200</td>
</tr>
</tbody>
</table>

[Source: World Bank Group - Trade & Competitiveness]
ADVANTAGES AND CHALLENGES

DOING BUSINESS LOGISTICS PERFORMANCE INDICATOR ENTERPRISE SURVEY

Benefits
- Private sector provides perception on time and cost to trade, border agency efficiency
- Standardized methodology, helps track country progress over time and between each other
- Countries are keen to improve their ranking, and thus the surveys help initiate a dialogue about reforms in TF

Challenges
- Perception does not provide accurate time and cost data at border points, it is proxy information
- Surveys are difficult to use as baselines to track reform progress on actual time reduction
- Quality of data is as good as respondent’s knowledge, in some countries, finding high quality respondents is challenging
OTHER TOOLKITS

- Trade and Transport Corridor Management Toolkit
- Trade Competitiveness Diagnostic Toolkit
- Trade Facilitation Agreement In-country Assessment Guide
- Streamlining Non-Tariff Measures Toolkit for Policy Makers
- Regulatory Assessment Toolkit
WBG PERFORMANCE MEASUREMENT TOOLS

I. MACRO LEVEL:
- Doing Business
- Logistics Performance Indicators
- Enterprise Survey
- Household survey

II. PROJECT LEVEL
- M&E: Private sector cost savings
- TFSP: TFA tracking tools
- Truck-by-truck analysis
- Time release study
<table>
<thead>
<tr>
<th>Development Challenge</th>
<th>T&amp;C Offering</th>
<th>Solution/Intermediate Outcomes</th>
<th>Outcome</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inconsistent, unreliable and costly trade transactions.</td>
<td>Strengthening trade corridors, supply chains, and trade logistics</td>
<td>Strengthened public sector institutional capacities</td>
<td>Improved firm productivity</td>
<td>Growth</td>
</tr>
<tr>
<td>Lack of inclusion, transparency and trust among stakeholders</td>
<td>Modernizing border management</td>
<td>More integrated economies</td>
<td>Increase investment</td>
<td>Aggregate productivity</td>
</tr>
<tr>
<td></td>
<td>Enhancing connectivity between firms, markets, and consumers</td>
<td>Increased value addition to local suppliers</td>
<td>Improved trade performance</td>
<td>Rising income</td>
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<tr>
<td></td>
<td></td>
<td>Reduced business, investment and trading costs</td>
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<td>Enhanced public-private dialogue</td>
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<td>More competitive sectors &amp; spillovers from agglomeration</td>
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<tr>
<td>WB Intermediate Outcomes/IFC Outcome</td>
<td>WB Outcome/IFC Impact</td>
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<tr>
<td>Average cost to export (US$)</td>
<td>Private sector savings (US$)</td>
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<tr>
<td>Average cost to import (US$)</td>
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<tr>
<td>Average number of days for export</td>
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<tr>
<td>Average number of days for import</td>
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<tr>
<td>Average number of times consignments are inspected</td>
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<tr>
<td>Border inspections coordinated</td>
<td></td>
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<tr>
<td>Citizen engagement {UC}</td>
<td></td>
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<tr>
<td>Ratio of detections to inspections (%)</td>
<td></td>
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<tr>
<td>Harmonized days/hours of operation across borders on transit corridors {UC}</td>
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<tr>
<td>Informal payments in exports and imports</td>
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<tr>
<td>Number of checkpoints along major corridors</td>
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<tr>
<td>Number of paper based export documents required for trade</td>
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<tr>
<td>Number of recommended laws/regulations/amendments/codes enacted or government policies adopted</td>
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<tr>
<td>Number of recommended procedures/firm-level policies/practices/standards that were improved or eliminated</td>
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<tr>
<td>Number of website visitors</td>
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<tr>
<td>Percent of trade covered by mutual recognition agreements with other governments</td>
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<tr>
<td>Percent return website visitors</td>
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<tr>
<td>Percentage of cargo inspected by border clearance agencies</td>
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<tr>
<td>Ratio of detections to inspections</td>
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<tr>
<td>Publication of procedures, documents, schedule, fees and laws (Yes/No)</td>
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<tr>
<td>Improved performance of WBG supported countries in global rankings {UC}</td>
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<tr>
<td>Public Sector Savings/Public sector effectiveness {UC}</td>
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<tr>
<td>Risk profiles consolidated</td>
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<tr>
<td>Number of firms that benefit from reformed customs/border services; Number of reforms</td>
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</tr>
</tbody>
</table>
Using **Indicators** to track reform progress

A couple of **principles**......

1. Clustering indicators and measurement

2. Estimating:

   *What Difference Does a Day Make?*
TOP-DOWN PRIVATE SECTOR SAVINGS METHODOLOGY: ESTIMATED WILLINGNESS-TO-PAY FOR TIME REDUCTIONS

General Intuition for valuing trade facilitation activities: Every day reduces the value of traded goods by roughly 1% (0.6 percent if the conservative estimate, which we use). The model suggests that trades could pay between .6 and 2.1 percent ad valorem on average for each day of time. This methodology is currently being tested through field impact evaluations in different countries.

The methodology can be expressed through this formula:

\[ \text{Annual Savings} = \text{Change in trading time} \times \text{Intervention share} \times \text{Tariff equivalent (Value of reductions in time to trade)} \times \text{Value of Trade in the baseline year} \]
Bottom-up Private Sector Savings Methodology: Identifying sources of cost and adding them up

**PS savings for trade logistics**

- **Lower User Fees and Charges**
  - Documentation charges
  - Port and terminal fees
  - Trucking charges

- **Reduced Cargo Loss and Damage**
  - Annual import value
  - Frequency of damage or loss
  - % value of consignment lost or damaged in transit

- **Inventory Cost Savings**
  - Inventory turnaround
  - Interest charges for goods in storage
  - Storage costs
  - Inventory losses due to spoilage or damage in storage

- **Decreased Capital Carrying Charge**
  - Shipment value
  - Interest rate
  - Time to trade
**Objective**

To examine alignment with the TFA both from a legal perspective (de jure) and de facto implementation.

To enable countries to track reform implementation and report on progress in a results-based manner.

**Key Features**

- Provides an overall measure of alignment of full and effective implementation
- Data will be collected and presented every 2 years to allow for time for implementation of reforms
- Will become available as an online tool
- Scoring based on measures allows for more detailed tracking of reform implementation (some articles contain multiple reforms).
Performance on each of the TFA’s 37 measures scored according to three dimensions that each weigh equally:

- Raw scores converted into alignment scores:

<table>
<thead>
<tr>
<th>Fully Aligned</th>
<th>Substantially Aligned</th>
<th>Partially Aligned</th>
<th>Not Aligned</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

- Overall alignment score is a simple average of all 37 measures.

- For most measures, the tool takes a whole-of-government approach.

- To simplify implementation, four agencies selected as a proxy for the whole of government:

<table>
<thead>
<tr>
<th>Customs</th>
<th>Plant Quarantine</th>
<th>Health</th>
<th>Bureau of Standards</th>
</tr>
</thead>
</table>
FUTURE DIRECTIONS

- Baseline data collection tool for land borders
  - WCO TRS
  - Cross Border supply chain
  - Agri product time & cost assessment tool

- Gender impact measurement for Trade Facilitation and Border Management

- Revenue Compliance Assessment Methodology
Thank You.....

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