Appendix A: Composition and Computation of the Enabling Trade Index 2014

This appendix details the computation and composition of the Enabling Trade Index 2014 (ETI). For a presentation of the ETI framework and an analysis of the results, see Chapter 1 of this *Report.*

The ETI is composed of four main components, the subindexes:

A. Market access
B. Border administration
C. Infrastructure
D. Operating environment

The subindexes are subdivided into seven 'pillars':

1. Domestic market access
2. Foreign market access
3. Efficiency and transparency of border administration
4. Availability and quality of transport infrastructure
5. Availability and quality of transport services
6. Availability and use of ICTs
7. Operating environment

Each pillar is composed of a total of 56 indicators and subindicators.[1] Indicators and subindicators are drawn from various sources, including partner organizations: the Global Express Association (GEA), the International Trade Centre (ITC), the United Nations Conference on Trade and Development (UNCTAD), the World Bank and the World Trade Organization (WTO). In addition, several indicators are derived from the World Economic Forum's Executive Opinion Survey. Appendix B provides details and sources of each individual indicator and subindicator used in the ETI. The numbering of the indicators informs of their placement inside the ETI. The number preceding the dot indicates the pillar to which an indicator belongs (e.g. indicator 1.03 belongs to Pillar 1 and indicator 7.04 belongs to Pillar 7). For the sake of readability, subindicators are not numbered.

Indicators that are not derived from the Executive Opinion Survey have been assigned scores ranging from 1 to 7 using a minimum-maximum transformation prior to aggregation.[2] This is to align them with the scores of indicators derived from the Survey, which always range from 1 to 7. In both cases, a score of 1 and 7 corresponds to the worst and best possible outcome, respectively. In the structure below, Survey indicators are identified with an asterisk (*).

The *Report* contains profiles detailing the performance on the ETI of selected economies. Profiles for all 138 economies covered by the ETI, as well as

comparative data tables of each indicator (Data Tables), are available on the *Report's* website at www.weforum.org/getr.

The computation of the ETI is based on successive aggregations of the scores from the indicator level (i.e. the most disaggregated level) all the way up to the overall ETI score. Unless noted otherwise, an arithmetic mean is used to aggregate the scores within a parent component (subindex, subpillar, pillar, or indicator).[3] The mean or aggregated score becomes the overall score for that component. In the structure below we report the weight of the main components within their respective immediate parent component. By construction, the scores of all indicators derived from the aggregation of underlying indicators are always measured on a 1–7 scale.

Weight (%) within immediate parent category

SUBINDEX A: MARKET ACCESS 25%

Pillar 1: Domestic market access 50%

1.01 Tariff rate
1.02 Complexity of tariffs index[4]
   Tariff dispersion
   Tariff peaks
   Specific tariffs
   Number of distinct tariffs
1.03 Share of duty-free imports

Pillar 2: Foreign market access 50%

2.01 Tariffs faced
2.02 Index of margin of preference in destination markets

Weight (%) within immediate parent category

SUBINDEX B: BORDER ADMINISTRATION.......... 25%

Pillar 3: Efficiency and transparency of border administration 100%

3.01 Customs services index
3.02 Efficiency of the clearance process
3.03 Number of days to import[5]
3.04 Number of documents to import[5]
3.05 Cost to import[5]
3.06 Number of days to export[6]
3.07 Number of documents to export[6]
3.08 Cost to export[6]
3.09 Irregular payments in exports and imports*
3.10 Time predictability of import procedures*
3.11 Customs transparency index

<div style="text-align:right">Weight (%) within
immediate parent category</div>

SUBINDEX C: INFRASTRUCTURE 25%

Pillar 4: Availability and quality of transport infrastructure (1–7) 33⅓%

Subpillar 4a: Availability and quality of
air transport infrastructure..25%
4.01 Available international airline seats kilometres/week
4.02 Quality of air transport infrastructure*

Subpillar 4b: Availability and quality of
railroad infrastructure 25%
4.03 Quality of railroad infrastructure*

Subpillar 4c: Availability and quality of
port infrastructure 25%
4.04 Liner Shipping Connectivity Index
4.05 Quality of port infrastructure*

Subpillar 4d: Availability and quality of
road infrastructure 25%
4.06 Paved roads
4.07 Quality of roads*

Pillar 5: Availability and quality of transport services... 33⅓%
5.01 Ease and affordability of shipment
5.02 Logistics competence
5.03 Tracking and tracing ability
5.04 Timeliness of shipments in reaching destination
5.05 Postal services efficiency*
5.06 Efficiency of transport mode change*

Pillar 6: Availability and use of ICTs 33⅓%
6.01 Mobile phone subscriptions
6.02 Individuals using Internet
6.03 Fixed broadband Internet subscriptions[7]
6.04 Active mobile broadband Internet subscriptions[7]
6.05 ICT use for business-to-business transactions*[8]
6.06 Internet use for business-to-consumer transactions*[8]
6.07 Government Online Service Index

<div style="text-align:right">Weight (%) within
immediate parent category</div>

SUBINDEX D: OPERATING ENVIRONMENT 25%

Pillar 7: Operating environment....................................... 100%
7.01 Protection of property index[9]
        Property rights*
        Intellectual property protection*
7.02 Efficiency and accountability of public institutions index[9]
        Judicial efficiency & impartiality in commercial disputes
        Diversion of public funds*
        Ease of compliance with government regulation*
7.03 Access to finance index[9]
        Affordability of financial services*
        Availability of financial services*
        Ease of access to loans*
        Availability of trade finance*
7.04 Openness to foreign participation index[9]
        Ease of hiring foreign labour*
        Business impact of rules on FDI*
        Openness to multilateral trade rules
7.05 Index of physical security[9]
        Reliability of police services*
        Business costs of crime and violence*
        Business costs of terrorism*
        Homicide rate
        Index of terrorism incidence

NOTES

1   Note the exception of Pillar 4, which is composed of four subpillars.

2   The standard formula for converting each value to a 1–7 scale is:

$$6 \times \left(\frac{\text{country value} - \text{sample minimum value}}{\text{sample maximum value} - \text{sample minimum value}} \right) + 1$$

The sample minimum and sample maximum values are the lowest and highest values in the entire sample, respectively. For those indicators for which a higher value indicates a worse outcome (e.g. tariff barriers, road congestion), we rely on a transformation formula that, in addition to converting the values to a 1–7 score, reverses it, so that 1 and 7 still correspond to the worst and best possible outcomes, respectively:

$$-6 \times \left(\frac{\text{country value} - \text{sample minimum value}}{\text{sample maximum value} - \text{sample minimum value}} \right) + 7$$

Appendix B identifies those indicators for which the second formula applies. In some instances, adjustments were made to account for outliers in the data and the overall distribution of the sample.

3   Formally, for a category i composed of K indicators, we have:

$$category_i = \frac{\sum_{k=1}^{K} indicator_k}{K}$$

4   The score of indicator 1.02 corresponds to the average score across the four composing subindicators.

5   When calculating the index, indicators 3.03, 3.04 and 3.05 are combined to form a single indicator. That is, the weight of each of these indicators is one third that of a normal indicator within pillar 3.

6   When calculating the index, indicators 3.06, 3.07 and 3.08 are combined to form a single indicator. That is, the weight of each of these indicators is one third that of a normal indicator within pillar 3.

7   When calculating the index, indicators 6.03 and 6.04 are combined to form a single indicator. That is, the weight of each of these indicators is one half that of a normal indicator within pillar 6.

8   When calculating the index, indicators 6.05 and 6.06 are combined to form a single indicator. That is, the weight of each of these indicators is one half that of a normal indicator within pillar 6.

9   The score of indicators 7.01, 7.02, 7.03, 7.04 and 7.05 corresponds to the average score across their respective subindicators.