



DHL Global Connectedness Index 2018

Methodology

The DHL Global Connectedness Index (GCI) aims to provide a comprehensive and timely account of the world's global connectedness, backed up by regional and country-level analysis covering 169 countries. These encompass 99% of the world's Gross Domestic Product (GDP) and 97% of its population.

For the purpose of constructing the DHL Global Connectedness Index, the starting point is the following definition of global connectedness:

"GLOBAL CONNECTEDNESS REFERS TO THE *DEPTH* AND *BREADTH* OF A COUNTRY'S INTEGRATION WITH THE REST OF THE WORLD, AS MANIFESTED BY ITS PARTICIPATION IN INTERNATIONAL FLOWS OF *PRODUCTS AND SERVICES, CAPITAL, INFORMATION, AND PEOPLE.*"

The definition of global connectedness used here identifies four specific categories of flows that are covered as the four pillars of the index. These are: trade flows (products and services), investment flows (capital), information flows, and people flows. Within these four pillars, individual types of flows are the components from which the index is built up. Each is quantified with appropriate metrics (see **Table 1.1.**).

The GCI captures both the *depth* and *breadth* of each flow:

DEPTH refers to the size of a country's international flows as compared to a relevant measure of the size of its domestic economy. It reflects in simple terms how important or pervasive interactions with the rest of the world are in the context of business or life in a particular country.

BREADTH measures how closely a country's distribution of international flows across its partner countries matches the global distribution of the same flows in the opposite direction. The breadth of a country's merchandise exports, for example, is measured based on the difference between the distribution of its exports across destination countries versus the rest of the world's distribution of merchandise imports.



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Table 1.1 Depth Metrics by Component		
Pillar	Component	Domestic Comparison for Depth
1. Trade	1.1 Merchandise Trade	GDP
	1.2 Services Trade (Commercial Services Only)	GDP
2. Capital	2.1. Foreign Direct Investment (FDI) Stocks	GDP
	2.2. Foreign Direct Investment (FDI) Flows (moving average of last 3 years)	Gross Fixed Capital Formation (GFCF)
	2.3. Portfolio Equity Stocks	Stock Market Capitalization
	2.4. Portfolio Equity Flows (moving average of last 3 years)	Stock Market Capitalization
3. Information	3.1. International Internet Bandwidth	Internet Users
	3.2. Telephone Call Minutes	Population
	3.3. Trade in Printed Publications (H.S. Code 49 covering printed books, newspapers, pictures, etc.)	Population
4. People	4.1. Migrants (foreign born population)	Population
	4.2. Tourism (departures and arrivals of overnight tourists)	Population
	4.3. International Students	Tertiary Education Enrollment

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Aggregation and Weights

The overall index is built up from its constituent components via three steps, as illustrated in **Figure 1**. First, the individual components are aggregated into pillars, resulting in the computation of distinct pillars of the same type for depth and breadth. Then, overall depth and breadth scores are computed. In step 3, these two dimensions of the analysis are combined to produce the DHL Global Connectedness Index, applying equal weights to both.

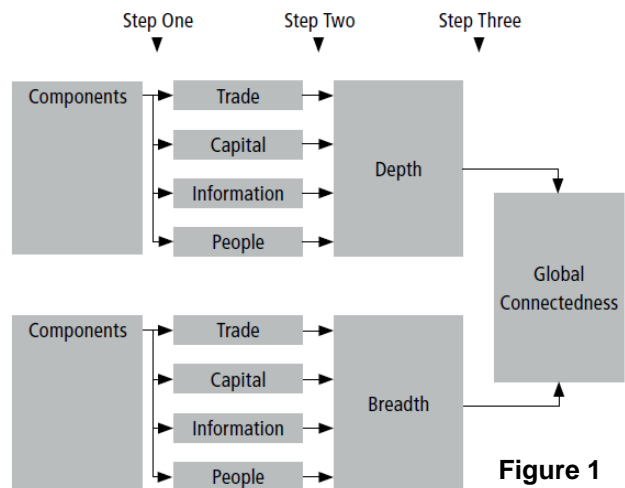


Figure 1

To ensure that the different shapes of their distributions do not interfere with equal weighting at this step, and to make the results more intuitively understandable for readers, both depth and breadth scores are rescaled between 0 and 50. Then, they are simply added together, producing the final Global Connectedness Index, with possible scores ranging from 0 to 100.

At each stage of the aggregation process, the constituent components are added together as weighted sums, according to the weights shown in **Table 1.2**.



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Table 1.2 Weights		
Pillar (Weight % of Total)	Depth Component (Weight % of Pillar)	Breadth Component (Weight % of Pillar)
1. Trade (35%)	1.1 Merchandise Trade (75%)	1.1 Merchandise Trade (100%)
	1.2 Services Trade (25%)	-
2. Capital (35%)	2.1. FDI Stocks (25%)	2.1. FDI Stocks (25%)
	2.2. FDI Flows (25%)	2.2. FDI Flows (25%)
	2.3. Portfolio Equity Stocks (25%)	2.3. Portfolio Equity Stocks (50%)
	2.4. Portfolio Equity Flows (25%)	-
3. Information (15%)	3.1. International Internet Bandwidth (40%)	-
	3.2. Telephone Call Minutes (40%)	3.2. Telephone Call Minutes (67%)
	3.3. Trade in Printed Publications (20%)	3.3. Trade in Printed Publications (33%)
4. People (15%)	4.1. Migrants (33%)	4.1. Migrants (33%)
	4.2. Tourists (33%)	4.2. Tourists (33%)
	4.3. Students (33%)	4.3. Students (33%)