

Technical Notes and Sources

This section complements the data tables by providing full descriptions and sources of all the indicators used for the calculation of the Travel & Tourism Competitiveness Index 2015 (TTCI).

The number next to the indicator corresponds to the number of the data table that shows the ranks and scores for all countries/economies on this particular indicator. The data used in this *Report* include the data derived from the Executive Opinion Survey as well as “statistical” data from other organizations. In the case of indicators derived from the Executive Opinion Survey (the Survey), the full question and associated answers are provided. For more details on Survey indicators, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*. For indicators sourced from other organizations or national sources, because of space limitations it is not possible to reproduce in this *Report* all the additional information associated with specific data points. The data used in the computation of the TTCI 2015 represent the most recent and/or best data available at the time when they were collected. It is possible that data were updated or revised subsequently. Throughout the statistical tables in this publication, “n/a” denotes that the value is not available, or that available data are unreasonably outdated or do not come from a reliable source.

PILLAR 1: BUSINESS ENVIRONMENT

1.01 Property rights

[In your country, how strong is the protection of property rights, including financial assets? \(1 = extremely weak, 7 = extremely strong\) | 2013–2014 weighted average](#)

Source: World Economic Forum, Executive Opinion Survey

1.02 Impact of rules on FDI

[In your country, to what extent do rules and regulations encourage or discourage foreign direct investment \(FDI\)? \(1 = strongly discourage FDI, 7 = strongly encourage FDI\) | 2013–2014 weighted average](#)

Source: World Economic Forum, Executive Opinion Survey

1.03 Efficiency of legal framework in settling disputes

[In your country, how efficient is the legal framework for private businesses in settling disputes? \(1 = extremely inefficient, 7 = extremely efficient\) | 2013–2014 weighted average](#)

Source: World Economic Forum, Executive Opinion Survey

1.04 Efficiency of legal framework in challenging regulations (rule of law next year)

[In your country, how easy is it for private businesses to challenge government actions and/or regulations through the legal system? \(1 = extremely difficulty, 7 = extremely easy\) | 2013–2014 weighted average](#)

Source: World Economic Forum, Executive Opinion Survey

1.05 Time required to deal with construction permits

[Total number of days required to deal with procedures necessary to build a warehouse | 2014](#)

This indicator measures the median duration (in number of days) that local experts indicate is necessary in practice for a business to build a warehouse. The duration takes into account the following procedures: obtaining and submitting all relevant project-specific documents (for example, building plans, site maps and certificates of urbanism) to the authorities; hiring external third-party supervisors, engineers or inspectors; obtaining all necessary clearances, licenses, permits and certificates; submitting all required notifications; and requesting and receiving all necessary inspections as well as all procedures for obtaining connections for water and sewerage. For further details, visit <http://www.doingbusiness.org/methodology>.

Source: World Bank/International Finance Corporation, *Doing Business 2015 Going Beyond Efficiency*

1.06 Cost to deal with construction permits

[Cost is recorded as a percentage of the warehouse value | 2014](#)

This indicator measures the cost associated with the procedures necessary for a business to build a warehouse (respect to its value). This cost is related to the following procedures: obtaining and submitting all relevant project-specific documents (for example, building plans, site maps and certificates of urbanism) to the authorities; hiring external third-party supervisors, engineers or inspectors; obtaining all necessary clearances, licenses, permits and certificates; submitting all required notifications; and requesting and receiving all necessary inspections as well as all procedures for obtaining connections for water and sewerage. For further details, visit <http://www.doingbusiness.org/methodology>.

Source: World Bank/International Finance Corporation, *Doing Business 2015 Going Beyond Efficiency*

1.07 Extent of market dominance

[In your country, how would you characterize corporate activity? \(1 = dominated by a few business groups, 7 = spread among many firms\) | 2013–2014 weighted average](#)

Source: World Economic Forum, Executive Opinion Survey

1.08 Time required to start a business

Number of days required to start a business | 2014

This indicator measures the median duration that incorporation lawyers indicate is necessary to complete a procedure with minimum follow-up with government agencies and no extra payments. For further details, visit <http://www.doingbusiness.org/methodology>.

Source: World Bank/International Finance Corporation, *Doing Business 2015 Going Beyond Efficiency*

1.09 Cost to start a business

Cost to start a business as a percentage of the economy's income (GNI) per capita | 2014

This indicator measures all official fees and fees for legal or professional services if such services are required by law. For further details, visit <http://www.doingbusiness.org/methodology>.

Source: World Bank/International Finance Corporation, *Doing Business 2015 Going Beyond Efficiency*

1.10 Extent and effect of taxation on incentives to work

In your country, to what extent do taxes reduce the incentive to work? (1 = significantly reduce the incentive to work, 7 = does not reduce incentive to work at all) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

1.11 Extent and effect of taxation on incentives to invest

In your country, to what extent do taxes reduce the incentive to invest? (1 = significantly reduce the incentive to invest, 7 = do not reduce the incentive to invest at all) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

1.12 Total tax rate

A combination of profit tax (% of profits), labour tax and contribution (% of profits) and other taxes (% of profits) | 2014

The total tax rate measures the amount of taxes and mandatory contributions payable by a medium-size company, expressed as a share of commercial profits. The total amount of taxes is the sum of five different types of taxes and contributions payable after accounting for deductions and exemptions: profit or corporate income tax, social contributions and labour taxes paid by the employer, property taxes, turnover taxes and other small taxes. For more details about the methodology employed and the assumptions made to compute this indicator, visit <http://www.doingbusiness.org/methodology>.

Source: World Bank/International Finance Corporation, *Doing Business 2015 Going Beyond Efficiency*

1.12a Labour and contributions tax rate

Amount of taxes and mandatory contributions on labour paid by the business as a percentage of commercial profits | 2014

Source: World Bank/International Finance Corporation, *Doing Business 2015 Going Beyond Efficiency*

1.12b Profit tax rate

Amount of taxes on profits paid by the business as a percentage of commercial profit | 2014

Source: World Bank/International Finance Corporation, *Doing Business 2015 Going Beyond Efficiency*

1.12c Other taxes rate

Amount of taxes and mandatory contributions paid by the business as a percentage of commercial profit that are not already included in the categories of profit or labour taxes | 2014

Source: World Bank/International Finance Corporation, *Doing Business 2015 Going Beyond Efficiency*

PILLAR 2: SAFETY AND SECURITY

2.01 Business costs of crime and violence

In your country, to what extent does the incidence of crime and violence impose costs on businesses? (1 = to a great extent, 7 = not at all) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

2.02 Reliability of police services

In your country, to what extent can police services be relied upon to enforce law and order? (1 = cannot be relied upon at all, 7 = can be completely relied upon) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

2.03 Business costs of terrorism

In your country, to what extent does the threat of terrorism impose costs on businesses? (1 = to a great extent, 7 = not at all) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

2.04 Index of terrorism incidence

Simple average of the number of terrorism-related casualties (injuries and fatalities) and the number of terrorist attacks, each normalized on a scale of 1 to 7 | 2010–2013 total

This index has been created on the basis of data contained in the START Database (National Consortium for the Study of Terrorism and Responses to Terrorism). It is the average of the total number of terrorism attacks during the 2010–2012 period and the total number of terrorism casualties (fatalities plus injured people) over the same period. Prior to aggregation, both totals were transformed on a scale ranging from 1 (most attacks/casualties) to 7 (no attack/casualty) using a min-max formula. On both measures, economies whose terrorism incidence is above the 95th percentile are assigned a transformed score of 1.

Source: World Economic Forum's calculations based on data from National Consortium for the Study of Terrorism and Responses to Terrorism (START), Global Terrorism Database. Retrieved from <http://www.start.umd.edu/gtd> on 27 January 2015.

2.05 Homicide rate

Number of homicide cases per 100,000 population | 2012 or most recent

The United Nations Office on Drugs and Crime (UNODC) collects statistics on homicide occurrences worldwide, pooling information from national sources as well as other international institutions such as Interpol, Eurostat, the Organization of American States, UNICEF and the World Health Organization (WHO).

Note: Higher value means worse outcome.

Source: United Nations Office on Drugs and Crime (UNODC)

PILLAR 3: HEALTH AND HYGIENE

3.01 Physician density

Physician density per 1,000 population | 2011 or most recent

This indicator measures the number of physicians in the country per 1,000 population. Physicians include generalist medical practitioners and specialist medical practitioners.

Source: The World Health Organization, Global Health Observatory Data Repository

3.02 Access to improved sanitation**Access to adequate sanitation as a percentage of total population | 2012 or most recent**

This indicator refers to the percentage of the population with at least adequate access to excreta disposal facilities that can effectively prevent human, animal and insect contact with excreta. Improved facilities range from simple but protected pit latrines to flush toilets with a sewerage connection. To be effective, facilities must be correctly constructed and properly maintained.

Source: The World Health Organization, Global Health Observatory Data Repository

3.03 Access to improved drinking water**Access to safe drinking water as a percentage of total population | 2012 or most recent**

This indicator refers to the percentage of the population with reasonable access to an adequate amount of water from an improved source, such as a household connection, public standpipe, borehole, protected well or spring and rainwater collection. Unimproved sources include vendors, tanker trucks and unprotected wells and springs. "Reasonable access" is defined as the availability of at least 20 litres per person per day from a source within one kilometre of the dwelling.

Source: The World Health Organization, Global Health Observatory Data Repository

3.04 Hospital beds**Hospital beds per 10,000 population | 2011 or most recent**

Hospital beds includes inpatient beds available in public, private, general and specialized hospitals and rehabilitation centres. In most cases, beds for both acute and chronic care are included.

Source: The World Bank, *World Development Indicators*, 2014 Edition (retrieved on November 2014)

3.05 HIV prevalence**HIV prevalence as a percentage of adults aged 15–49 years | 2013 or most recent**

HIV prevalence refers to the percentage of people aged 15–49 who are infected with HIV at a particular point in time, no matter when infection occurred.

Source: The World Bank, *World Development Indicators* (accessed 18 June 2014); UNAIDS, *Global Report on the Global AIDS Epidemic* (2008, 2010, 2012 and 2013 editions); national sources

3.06 Malaria incidence**Estimated number of malaria cases per 100,000 population | 2012 or most recent**

This indicator refers to the estimated number of new cases of malaria in the economy per 100,000 population. M.F. and S.L. indicate respectively that the World Health Organization (WHO) has declared the area malaria-free (M.F.) or that it has included it in the supplementary list (S.L.) of areas where malaria has never existed or has disappeared without specific measures. Hong Kong SAR and Puerto Rico have been considered malaria-free (M.F.) following the assessment by the US Centers for Disease Control and Prevention (CDC).

Source: The World Health Organization, *World Malaria Report 2013*; United States Centers for Disease Control and Prevention (CDC), Malaria Information and Prophylaxis information (accessed 11 July 2014)

PILLAR 4: HUMAN RESOURCES AND LABOUR MARKET**4.01 Primary education enrolment rate****Net primary education enrolment rate | 2012 or most recent**

The reported value corresponds to the ratio of children of official school age (as defined by the national education system) who are enrolled in school to the population of the corresponding official school age. Primary education (ISCED level 1) provides children with basic reading, writing and mathematics skills along with an elementary understanding of such subjects as history, geography, natural science, social science, art and music.

Source: UNESCO Institute for Statistics, Data Centre (accessed 26 November 2014); Organisation for Economic Co-operation and Development (OECD), *Education at a Glance 2013*; Sistema de Información de tendencias Educativas de América Latina (SITEAL); national sources

4.02 Secondary education enrolment rate**Gross secondary education enrolment rate | 2012 or most recent**

The reported value corresponds to the ratio of total secondary enrolment, regardless of age, to the population of the age group that officially corresponds to the secondary education level. Secondary education (ISCED levels 2 and 3) completes the provision of basic education that began at the primary level and aims to lay the foundations for lifelong learning and human development by offering more subject- or skills-oriented instruction using more specialized teachers.

Source: UNESCO Institute for Statistics, Data Centre (accessed 26 November 2014); UNICEF Childinfo.org; Sistema de Información de tendencias Educativas de América Latina (SITEAL); national sources

4.03 Extent of staff training**In your country, to what extent do companies invest in training and employee development? (1 = not at all, 7 = to a great extent) | 2013–2014 weighted average**

Source: World Economic Forum, Executive Opinion Survey

4.04 Treatment of customers**In your country, how well do companies treat customers? (1 = indifferent to customer satisfaction, 7 = highly responsive to customers and seek customer retention) | 2013–2014 weighted average**

Source: World Economic Forum, Executive Opinion Survey

4.05 Hiring and firing practices**In your country, how would you characterize the hiring and firing of workers? (1 = heavily impeded by regulations, 7 = extremely flexible) | 2013–2014 weighted average**

Source: World Economic Forum, Executive Opinion Survey

4.06 Ease of finding skilled employees**In your country, how easy is it for companies to find employees with the required skills for their business needs? (1 = extremely difficult, 7 = extremely easy) | 2013–2014 weighted average**

Source: World Economic Forum, Executive Opinion Survey

4.07 Ease of hiring foreign labour**In your country, to what extent does labour regulation impede the hiring of foreign labour? (1 = impedes heavily, 7 = does not impede at all) | 2013–2014 weighted average**

Source: World Economic Forum, Executive Opinion Survey

4.08 Pay and productivity

In your country, to what extent is pay related to worker productivity? (1 = not related to worker productivity, 7 = strongly related to worker productivity) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

4.09 Female labour force participation

Ratio of women to men in the labour force | 2012 or most recent

This indicator is the percentage of women aged 15–64 participating in the labour force divided by the percentage of men aged 15–64 participating in the labour force.

Source: International Labour Organization, *Key Indicators of the Labour Markets, 8th Edition*; national sources

PILLAR 5: ICT READINESS

5.01 ICT use for business-to-business transactions

In your country, to what extent do businesses use ICTs for transactions with other businesses? (1 = not at all, 7 = to a great extent) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

5.02 Internet use for business-to-consumer transactions

In your country, to what extent do businesses use the internet for selling their goods and services to consumers? (1 = not at all, 7 = to a great extent) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

5.03 Individuals using the internet

Percentage of individuals using the internet | 2013 or most recent

Internet users refers to people using the internet from any device (including mobile phones) in the last 12 months. Data are based on surveys generally carried out by national statistical offices or estimated based on the number of internet subscriptions.

Source: International Telecommunication Union, *World Telecommunication Indicators 2014*, December update

5.04 Broadband internet subscribers

Fixed broadband internet subscriptions per 100 population | 2013 or most recent

This refers to total fixed (wired) broadband internet subscriptions (that is, subscriptions to high-speed access to the public Internet—a TCP/IP connection—at downstream speeds equal to or greater than 256 kb/s).

Source: International Telecommunication Union, *World Telecommunication Indicators 2014*, December update

5.05 Mobile telephone subscriptions

Number of mobile telephone subscriptions per 100 population | 2013 or most recent

A mobile telephone subscription refers to a subscription to a public mobile telephone service that provides access to the public switched telephone network (PSTN) using cellular technology, including the number of pre-paid SIM cards active during the past three months. This includes both analogue and digital cellular systems (IMT-2000, Third Generation, 3G) and 4G subscriptions, but excludes mobile broadband subscriptions via data cards or USB modems. Subscriptions to public mobile data services, private trunked mobile radio, telepoint or radio paging and telemetry services are also excluded. It includes all mobile cellular subscriptions that offer voice communications.

Source: International Telecommunication Union, *World Telecommunication Indicators 2014*, December update

5.06 Mobile broadband subscriptions

Mobile broadband subscriptions per 100 population | 2013 or most recent

Mobile broadband subscriptions refers to active SIM cards or, on CDMA networks, connections accessing the internet at consistent broadband speeds of over 512 kb/s, including cellular technologies such as HSPA, EV-DO and above. This includes connections being used in any type of device able to access mobile broadband networks, including smartphones, USB modems, mobile hotspots and other mobile-broadband connected devices.

Source: International Telecommunication Union, *World Telecommunication Indicators 2014*, December update

5.07 Mobile network coverage

Percentage of total population covered by a mobile network signal | 2013 or most recent

This indicator measures the percentage of inhabitants who are within range of a mobile cellular signal, irrespective of whether or not they are subscribers. This is calculated by dividing the number of inhabitants within range of a mobile cellular signal by the total population. Note that this is not the same as the mobile subscription density or penetration.

Source: International Telecommunication Union, *World Telecommunication Indicators 2014*, December update

5.08 Quality of electricity supply

In your country, how would you assess the reliability of the electricity supply (lack of interruptions and lack of voltage fluctuations)? (1 = not reliable at all, 7 = extremely reliable) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

PILLAR 6: PRIORITIZATION OF TRAVEL & TOURISM

6.01 Government prioritization of travel and tourism industry

How high of a priority is the development of the travel & tourism (T&T) industry for the government of your country? (1 = not a priority at all, 7 = a top priority) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

6.02 T&T government expenditure

T&T government expenditure as a percentage of total government budget | 2013 or most recent

This indicator includes expenditures (transfers or subsidies) made by government agencies to provide T&T services such as cultural (e.g. art museums), recreational (e.g. national parks), clearance (e.g. immigration/customs) and so on to visitors.

Source: World Travel & Tourism Council, *Tourism Satellite Account Research 2014*

6.03 Effectiveness of marketing and branding to attract tourists

How effective is your country's marketing and branding campaigns at attracting tourists? (1 = not effective at all, 7 = extremely effective) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

6.04 Comprehensiveness of annual T&T data

Number of data available (0 = no data, 120 = all selected indicators are available) | 2010–2014

This indicator shows how many of the yearly data provided by national administrations on 30 different concepts from the UNWTO Compendium of Tourism Statistics are available. It covers 2010 through 2014. The scores range from a minimum of 0 to a maximum of 120, where 120 can be obtained by a country providing data for all the 30 concepts in all of the four years taken into consideration.

Source: World Tourism Organization (UNWTO)

6.05 Timeliness of providing monthly/quarterly T&T data

Number of latest data available (0 = no data, 21 = data reported for all the periods considered) | 2013–2014

This indicator shows the availability of two key T&T indicators (international tourist arrivals and tourism receipts) on a monthly or quarterly basis, covering the period from October 2013 to November 2014. The UNWTO has calculated the score of each country based on the data included in the latest available UNWTO World Tourism Barometer by adding the number of months for which data on the international tourist arrivals are available to the number of months for which data on international tourism receipts are available. Half weight has been applied to the lower of the two scores, so the scores range from a minimum of 0 to a maximum of 21 (the maximum number of period counts a country can get is 14 for one measure and 7 for the other).

Source: World Tourism Organization (UNWTO)

6.06 Country Brand Strategy rating

Level of accuracy of the strategy of the National Tourism Organization | 2014

This indicator evaluates the accuracy of the strategy of the National Tourism Organization (NTO) by a formula that compares the most popular brandtags (as measured by the proprietary Digital Demand D2 tool) for a specific country to the brandtags most heavily promoted by that country's NTO. A country brand receives a higher rating if that country's NTO focuses its strategic and promotional positioning on the tourism-related brandtags with the highest demand as measured by total online searches from international tourists. A poor rating can suggest either the inappropriate promotion of the least popular brandtags (as measured by online search volume) by an NTO or the lack of focus on the brandtags in highest demand.

Source: Bloom Consulting Country Brand Ranking, Tourism Edition. Available at http://www.bloom-consulting.com/pdf/rankings/Bloom_Consulting_Country_Brand_Ranking_Tourism.pdf

PILLAR 7: INTERNATIONAL OPENNESS**7.01 Visa requirements**

Visa requirements for entry in the destination country for a tourism visit of a limited duration for visitors from worldwide source markets (100 = no visa required for visitors from all source markets, 0 = traditional visa required for visitors from every source market) | 2014

This indicator measures to what extent a destination country is facilitating inbound tourism through its visa policy, distinguishing whether the country can be visited without a visa, a visa can be obtained on arrival or an electronic visa is available. It is calculated as a percentage of the world population that is exempt from a visa or is eligible for visa on arrival or electronic visa when visiting the destination country, where: A) the population of source markets that can visit the destination country without a visa is fully counted (i.e. weight 1); B) the population of source markets that can obtain a visa on arrival when entering the destination country is weighted by 0.7; and C) the population of source markets that can use an electronic visa is weighted by 0.5. The indicator is consistent with the UNWTO Visa openness report 2014 that can be downloaded from <http://rcm.unwto.org/content/facilitation-tourist-travel>.

Source: World Tourism Organization (UNWTO)

7.02 Openness of bilateral Air Service Agreements

Index measuring the average openness of air service agreements (0 = most restricted, 38 = most liberal) | 2011

This index measures the weighted average openness of all bilateral Air Service Agreements (ASAs) concluded by International Civil Aviation Organization (ICAO) signatories as registered in ICAO's *World's Air Services Agreements* (WASA) database (2010 update). The weights are the bilateral scheduled passenger traffic taking place under each ASA. Regulatory data come from ICAO's WASA database and traffic data were obtained from IATA.

Source: World Trade Organization, based on ICAO and IATA data

7.03 Number of regional trade agreements in force

Number of goods (RTAs) and services (EIAs) notifications | 2014

This indicator assess the level of openness of a country to foreign goods and services as measured by the sum of the number of Regional Trade Agreements (RTA) and the number of Economic Integration Agreements (EIA) in force to the WTO. Members entering into RTAs are required to notify RTA to the WTO, either under Article XXIV of the GATT 1994 or the Enabling Clause (for RTAs covering trade in goods), or under Article V of the GATS (for RTAs covering trade in services). In a case of an RTA covering both goods and services, two notifications are required. The notification should be made following ratification of the RTA and before the application of preferential treatment between the parties.

Source: World Trade Organization; Regional Trade Agreements Information System (RTA-IS) available at <http://rtais.wto.org/UI/PublicMaintainRTAHome.aspx>

PILLAR 8: PRICE COMPETITIVENESS

8.01 Ticket taxes and airport charges

Index of relative cost of access (ticket taxes and airport charges) to international air transport services (0 = highest cost, 100 = lowest cost) | 2014 or most recent

This index measures the relative cost of access to international air transport services based on the level of airport charges, passenger ticket taxes and value-added taxation. It reflects the costs associated with a narrow-body and a wide-body passenger plane arrival and departure at the major international airports in each country. Charges include landing, terminal navigation and passenger and security charges as listed in the IATA Airport and Air Navigation Charges manual. Ticket taxes applicable to international travel were applied as described in the IATA List of Ticket and Airport Taxes and Fees manual. Per-passenger charges were calculated by applying a 75% load factor to a typical seating configuration of each type of aircraft. Value-added taxes (VATs) were calculated based on an average ticket price for each country, applied to half of the departing passengers, because the VAT is normally charged only on itineraries originating in the country concerned. A higher score indicates a lower level of charges and taxes.

Source: International Air Transport Association, SRS Analyser

8.02 Hotel price index

Average room rates calculated for first-class branded hotels for calendar year (US dollars) | 2013–2014

This index measures the average price, in US dollars, of first-class hotel accommodation in each country. The index is calculated by using the average room rate achieved by first-class hotels in each country over a 12-month period from January through December 2011, to mitigate the impact of any seasonality fluctuations. Data may refer to the 2009 or the 2007 period where the 2011 update is not available.

Source: Deloitte–STR Global and Smith Travel Research Inc.

8.03 Purchasing power parity

Ratio of purchasing power parity (PPP) conversion factor to official exchange rate | 2013 or most recent available

The World Bank defines the purchasing power parity (PPP) conversion factor as the number of units of a country's currency required to buy the same amount of goods and services in the domestic market as a US dollar would buy in the United States. Official exchange rate refers to the exchange rate determined by national authorities or to the rate determined in the legally sanctioned exchange market. It is calculated as an annual average based on monthly averages (local currency units relative to the US dollar). The variable shown is the PPP conversion factor to market exchange rate ratio as reported by the World Bank's *World Development Indicator* database.

Source: The World Bank, *World Development Indicators* (retrieved November 2014)

8.04 Fuel price levels

Retail diesel fuel prices expressed as US cents per litre | 2012 or most recent available

This indicator refers to the pump prices of the most widely sold grade diesel fuel.

Source: The World Bank, *World Development Indicators* (retrieved November 2014)

PILLAR 9: ENVIRONMENTAL SUSTAINABILITY

9.01 Stringency of environmental regulations

How would you assess the stringency of your country's environmental regulations? (1 = very lax, among the worst in the world; 7 = among the world's most stringent) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

9.02 Enforcement of environmental regulations

In your country, how would you assess the enforcement of environmental regulations? (1 = very lax, among the worst in the world; 7 = among the world's most rigorous) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

9.03 Sustainability of travel and tourism industry development

How effective is your government's efforts to ensure that the Travel & Tourism sector is being developed in a sustainable way? (1 = very ineffective, development of the sector does not take into account issues related to environmental protection and sustainable development; 7 = very effective, issues related to environmental protection and sustainable development are at the core of the government's strategy) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

9.04 Particulate matter (2.5) concentration

Population-weighted exposure to PM_{2.5} (micro-grams per cubic meter) | 2012

PM_{2.5}, also known as fine particulate matter, refers to particles or droplets in the air that are 2.5 micrometres or less in width. Although invisible to the naked human eye as individual particles, PM_{2.5} can reduce visibility and cause the air to appear hazy when its levels are elevated. This indicator is based on a model that was parameterized by data on aerosol optical depth (AOD) from NASA's MODIS, SeaWiFS, MISR satellite instruments, and the GEOS-Chem chemical transport model. The parameterized model covered all areas south of 70 degree north latitude and north of 70 degree south latitude. Van Donkelaar et al. estimated annual global surface PM_{2.5} concentrations at a 10 x 10 km spatial resolution, and then created three-year moving averages from 2000 to 2012. Population-weighted average exposure values were calculated using population data from the Global Rural Urban Mapping Project (2011) database. For additional details, see Aaron van Donkelaar, January 2015 (embargoed), and http://epi.yale.edu/files/2014_epi_metadata.pdf.

Source: Yale University and Columbia University, Environmental Performance Index (EPI) 2012 edition based on NASA MODIS and MISR data, van Donkelaar et al. [2010], Battelle, and CIESIN

9.05 Environmental treaty ratifications

Total number of ratified environmental treaties | 2014

This indicator measures the total number of international treaties from a set of 27 for which a state is a participant. A state is acknowledged as a participant whenever its status for each treaty appears as Ratified, Accession, or In Force. The treaties included are: the International Convention for the Regulation of Whaling, 1948 Washington; the International Convention for the Prevention of Pollution of the Sea by Oil, 1954, as amended in 1962 and 1969, 1954 London; the Convention on Wetlands of International Importance especially as Waterfowl Habitat, 1971 Ramsar; the Convention Concerning the Protection of the World Cultural and Natural Heritage, 1972 Paris; the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 London, Mexico City, Moscow, Washington; the Convention on International Trade in Endangered Species of Wild Fauna and Flora, 1973 Washington; the International Convention for the Prevention of Pollution from Ships (MARPOL) as modified by the Protocol of 1978, London; the Convention on the Conservation of Migratory Species of Wild Animals, 1979 Bonn; the United Nations Convention on the Law of the Sea, 1982 Montego Bay; the Convention on the Protection of the Ozone Layer, 1985 Vienna; the Protocol on Substances that Deplete the Ozone Layer, 1987 Montreal; the Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 1989 Basel; the International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990 London; the United Nations Framework Convention on Climate Change, 1992 New York; the Convention on Biological Diversity, 1992 Rio de Janeiro; the International Convention to Combat Desertification in Those countries Experiencing Serious Drought and/or Desertification, particularly Africa, 1994 Paris; the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, 1994 New York; the Agreement relating to the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 1995 New York; the Kyoto Protocol to the United Nations Framework Convention on the Climate Change, Kyoto 1997; the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, 1998 Rotterdam; the Cartagena Protocol of Biosafety to the Convention on Biological Diversity, 2000 Montreal; the Protocol on Preparedness, Response and co-operation to Pollution Incidents by Hazardous and Noxious Substances, 2000 London; the Stockholm Convention on Persistent Organic Pollutants, 2001 Stockholm; the International Treaty on Plant Genetic Resources for Food and Agriculture, 2001 Rome; the International Tropical Timber Agreement, 2006 Geneva; the Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety, 2010 Nagoya - Kuala Lumpur; the Protocol on Access to Genetic Resources and their Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity, Nagoya 2010; the Convention on Mercury, Minamata, 2013.

Source: The International Union for Conservation of Nature (IUCN), Environmental Law Centre *ELIS Treaty Database*

9.06 Baseline water stress

Normalized (0–5) ratio of total annual water withdrawals to total available annual renewable supply | 2010 or most recent available

This indicator measures total annual water withdrawals (municipal, industrial and agricultural) expressed as a percentage of the total annual available flow. It is calculated as the ratio of water withdrawal to the mean available blue water (1950–2008). In turn, water withdrawals and available blue water are estimated separately. Water withdrawal is calculated in two steps. First, national-level withdrawals are estimated using multiple regression time series models of withdrawals as a function of GDP, population, irrigated area, and electrical power production. Regressions are performed separately for each sector (domestic, industrial, and agricultural) and used to predict withdrawals for the current year. Second, these withdrawal estimates are then spatially disaggregated by sector based on regressions with spatial datasets. Available blue water is the sum of water flowing into the catchment from upstream catchments plus any imports of water to the catchment; upstream consumptive use plus runoff (precipitation minus evaporation and change in soil moisture storage) are then subtracted. For further details about the calculation of each component, please refer to the working paper "Aqueduct Metadata Document, Aqueduct Global Maps 2.0," available at http://www.wri.org/sites/default/files/pdf/aqueduct_metadata_global.pdf.

Source: World Resources Institute, *Aqueduct Country and River Basin Rankings*, available at <http://www.wri.org/resources/datasets/aqueduct-country-and-river-basin-rankings>, December 2013 edition

9.07 Threatened species

Threatened species as a percentage of total species (mammals, birds and amphibians) | 2014

This indicator measures the total number of Critically Endangered, Endangered and Vulnerable species as a percentage of total known species for mammals, birds and amphibians.

Source: The International Union for Conservation of Nature (IUCN), Red List of Threatened Species 2014

9.08 Forest cover change

Percentage of forest cover change between 2000 and 2012 | 2012

This indicator measures the percentage change in forest cover between 2000 and 2012 in areas with greater than 50% tree cover. It factors in areas of deforestation (forest loss), reforestation (forest restoration or replanting) and afforestation (conversion of bare or cultivated land into forest). Hansen et al. (2013) used 650,000 Landsat 7 satellite images with a resolution of 30 metres to quantify the area of forest loss. As defined in Hansen et al. (2013), trees were defined as all vegetation taller than 5 metres. Forest loss was defined as a stand replacement disturbance or the complete removal of tree cover canopy at the Landsat pixel scale. Results were disaggregated by reference percent tree cover stratum (e.g. greater than 50% crown cover to approximately 0% crown cover) and by year.

Source: Yale Center for Environmental Law & Policy (YCELP) and the Center for International Earth Science Information Network (CIESIN) at Columbia University, Environmental Performance Index 2014, available at <http://epi.yale.edu/epi/issue-rankings>

9.09 Wastewater treatment

Percentage of wastewater that receives treatment weighted by connection to wastewater treatment rate | 2012

This indicator measures the percentage of wastewater that is treated before it is released back into ecosystems. The percentage of wastewater treated represents a measure of largely urban waste collection and treatment, since few rural areas are connected to sewage systems. The variable is calculated by weighting the average of the wastewater treatment rate values for the years 2000 through 2012 by the sewerage connection percentages. The original values are collated using a hierarchy of sources, selected in the following order: (1) country-level statistical data and reports; (2) values derived from the OECD's variable "Connected to wastewater treatment plan without treatment" by taking the inverse of this percentage; (3) the United Nations Statistics Division's "Population connected to wastewater treatment" variable; (4) secondary treatment levels from the *Pinsent Masons Water Yearbook, 14th edition*, available at <http://wateryearbook.pinsentmasons.com/>; and (5) FAO-AQUASTAT values (Total volume of wastewater treated/Total volume of wastewater collected) × 100 for a given year in a given country.

Source: Yale Center for Environmental Law & Policy (YCELP) and the Center for International Earth Science Information Network (CIESIN) at Columbia University, Environmental Performance Index 2014, available at <http://epi.yale.edu/epi/issue-rankings>

9.10 Coastal shelf fishing pressure

Trawling catch per exclusive economic zone (EEZ) (tonnes per square kilometre) | 2006 or most recent

This indicator assesses the total catch from trawling and dredging equipment divided by the total area of each country's exclusive economic zone (EEZ). Ocean ecosystems are significantly affected by the way in which aquatic species are harvested. Bottom or benthic trawling and dredging fishing techniques leave widespread, lasting damage on the sea beds and the ecosystem. This indicator is derived from the Sea Around Us spatial database, which is based on several major data sources such as the FAO capture fisheries and its regional bodies, the International Council for the Exploration of the Seas (ICES) STATLANT database (www.ices.int/fish/statlant.htm), the Northwest Atlantic Fisheries Organization (NAFO; www.nafo.ca) as well as data provided from the Canadian, United States and other governments. The catches in each spatial cell are associated with the appropriate fishing gear code to determine the catch from trawling and dredging gears. This total metric tonnes of catch is divided to the area of EEZ.

Source: Yale Center for Environmental Law & Policy (YCELP) and the Center for International Earth Science Information Network (CIESIN) at Columbia University, Environmental Performance Index 2014, available at <http://epi.yale.edu/epi/issue-rankings>

PILLAR 10: AIR TRANSPORT INFRASTRUCTURE

10.01 Quality of air transport infrastructure

How would you assess the quality of air transport infrastructure in your country? (1 = extremely underdeveloped, among the worst in the world; 7 = extensive and efficient, among the best in the world) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

10.02 Available seat kilometres, domestic

Scheduled available domestic seat kilometres originating in country per week (year average) | 2014

This indicator measures an airline's passenger-carrying capacity. It is composed of the number of seats available on each domestic flight multiplied by the flight distance in kilometres. The final value represents the weekly average for the year (Jan–Dec), taking into account flights scheduled beforehand by airline companies.

Source: International Air Transport Association, SRS Analyser

10.03 Available seat kilometres, international

Scheduled available international seat kilometres originating in country per week (year average) | 2014

This indicator measures an airline's passenger-carrying capacity. It is composed of the number of seats available on each international flight multiplied by the flight distance in kilometres. The final value represents the weekly average for the year (Jan–Dec), taking into account flights scheduled beforehand by airline companies.

Source: International Air Transport Association, SRS Analyser

10.04 Aircraft departures

Number of aircraft departures per 1,000 population | 2013 or most recent

Aircraft departures are the number of domestic and international take-offs of air carriers registered in the country. Only 2010 or more recent statistics were considered. In all the other case "n/a" was reported.

Source: Calculated by Strategy& based on the following sources. For the registered carrier departures worldwide, which are domestic take-offs and take-offs abroad of air carriers registered in the country: International Civil Aviation Organization, Civil Aviation Statistics of the World and ICAO staff estimates. Population statistics from: (1) United Nations Population Division, *World Population Prospects*, (2) United Nations Statistical Division, *Population and Vital Statistics Report* (various years), (3) census reports and other statistical publications from national statistical offices, (4) Eurostat, Demographic Statistics, (5) Secretariat of the Pacific Community, Statistics and Demography Programme and (6) U.S. Census Bureau, International Database.

10.05 Airport density

Number of airports with at least one scheduled flight per million of urban population | 2014

Urban population refers to people living in urban areas as defined by national statistical offices. It is calculated using World Bank population estimates and urban ratios from the United Nations *World Urbanization Prospects*.

Source: Author's calculation based on International Air Transport Association, SRS Analyser and World Bank, *World Development Indicators* (accessed 3 December 2014)

10.06 Number of operating airlines

Number of airlines with scheduled flights originating in country | 2014

Source: International Air Transport Association, SRS Analyser

PILLAR 11: GROUND AND PORT INFRASTRUCTURE

11.01 Quality of roads

How would you assess the quality of roads in your country? (1 = extremely underdeveloped, among the worst in the world; 7 = extensive and efficient, among the best in the world) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

11.02 Quality of railroad infrastructure

How would you assess the quality of railroad infrastructure in your country? (1 = extremely underdeveloped, among the worst in the world; 7 = extensive and efficient, among the best in the world) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

11.03 Quality of port infrastructure

How would you assess the quality of seaport infrastructure in your country? (1 = extremely underdeveloped, among the worst in the world; 7 = extensive and efficient, among the best in the world | 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) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

11.04 Quality of ground transport network

In your country, to what extent does your national ground transport network (e.g. buses, trains, trucks, taxis, etc.) offer efficient transportation? (1 = not at all, 7 = to a great extent) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

11.05 Railroad density (km/surface area)

Kilometres of railroad per 100 square kilometres of land | 2012 or most recent available

Railroad density is the ratio of the length of the country's total railroad network to the country's land area. Rail lines are the length of railway routes available for train service, irrespective of the number of parallel tracks.

Source: The World Bank, *World Development Indicators* (retrieved on November 2014)

11.06 Road density (km/surface area)

Kilometres of road per 100 square kilometres of land | 2011 or most recent available

Road density is the ratio of the length of the country's total road network to the country's land area. The road network includes all roads in the country: motorways, highways, main or national roads, secondary or regional roads and other urban and rural roads.

Source: IRF Geneva, World Road Statistics WRS

11.07 Paved road density (km/surface area)

Kilometres of paved road per 100 square kilometres of land | 2011 or most recent available

Road density is the ratio of the length of the country's total paved road network to the country's land area. Paved roads are those surfaced with crushed stone (macadam) and hydrocarbon binder or bituminized agents, with concrete, or with cobblestones, as a percentage of all the country's roads, measured in length.

Source: IRF Geneva, World Road Statistics WRS

PILLAR 12: TOURIST SERVICE INFRASTRUCTURE**12.01 Hotel rooms**

Number of hotel rooms per 100 population | 2013 or most recent

Source: World Tourism Organization (UNWTO)

12.02 Extension of business trips recommended

When senior executives visit your country for the first time for business purposes, how likely are you to recommend extending their trip for leisure purposes? (1 = very unlikely, 7 = very likely) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

12.03 Presence of major car rental companies

Index of presence of major car rental companies (1 = no company is present, 7 = all seven considered companies are present) | 2014

This indicator measures the presence of seven major car rental companies: Avis, Budget, Europcar, Hertz, National Car Rental, Sixt and Thrifty. For each country we count how many of these companies operate via an online research.

Source: Author's calculation based on the individual rental car websites

12.04 ATMs accepting Visa cards

Number of automated teller machines (ATMs) accepting Visa credit cards per 1 million population | 2014

Source: Visa

PILLAR 13: NATURAL RESOURCES**13.01 Number of World Heritage natural sites**

Number of World Heritage natural sites in the country | 2014

World Heritage natural sites are those properties that the World Heritage Committee considers as having outstanding universal value.

Source: UNESCO World Heritage List, available at <http://whc.unesco.org/en/list/>

13.02 Total known species

Total known species of mammals, birds and amphibians in the country | 2014

This indicator measures the total known species of mammals, birds and amphibians.

Source: The International Union for Conservation of Nature (IUCN), Red List Threatened Species

13.03 Total protected areas

Total hectares of terrestrial and marine areas under protection as a share of country's total territorial area | 2012

A terrestrial area includes total land area and inland waters. Marine areas, also known as territorial seas, are defined by the 1982 United Nations Convention on the Law of the Sea as belts of coastal waters extending at most twelve nautical miles from the baseline (usually the mean low-water mark) of a coastal state. Protected areas (marine, terrestrial or freshwater), as defined by the International Union for Conservation of Nature (IUCN), are clearly defined geographical spaces, recognized, dedicated and managed, through legal or other effective means to achieve the long-term conservation of nature with associated ecosystem services and cultural values. Only protected areas that are nationally designated are included in this indicator. The status designated is attributed to a protected area when the corresponding authority, according to national legislation or common practice (e.g. by means of an executive decree or the like), officially endorses a document of designation. The designation must be made for the purpose of biodiversity conservation, not single species protection or fortuitous de facto protection arising because of some other activity (e.g. military).

Source: United Nations Statistics Division, available at: <http://mdgs.un.org/unsd/mdg/Default.aspx>

13.04 Natural tourism digital demand

Number of online searches index (0–100 best) | 2014

This indicator measures the total online search volume related to the following nature-related brandtags: Beaches, Adventure and Extreme, Diving, Fishing, Hiking, Surfing, Water Sports, Winter Sports, Animal Watching, Protected Areas and Sustainable and Rural Tourism. The calculation is based on the proprietary D2 tool which assesses the attractiveness of each country by analyzing online tourism-related search data across the relevant brandtags, each comprising destination-specific keywords correlated to tourist activities and attractions. A total of 3,818,000 keywords were analyzed across nine languages: English, Spanish, French, Italian, German, Portuguese, Russian, Japanese and Chinese.

Source: Bloom Consulting based on Country Brand Ranking, Tourism Edition. Available at http://www.bloom-consulting.com/pdf/rankings/Bloom_Consulting_Country_Brand_Ranking_Tourism.pdf

13.05 Quality of the natural environment

How would you assess the quality of the natural environment in your country? (1 = extremely poor; 7 = among the world's most pristine) | 2013–2014 weighted average

Source: World Economic Forum, Executive Opinion Survey

14.04 Number of international association meetings

Number of international association meeting held in the country annually | 2011-2013

This indicator measures the average number of international associations meetings held annually in each country between 2011 and 2013. These figures are based on the ICCA Association Database, which includes meetings organized by international associations, matching the following criteria: a) take place on a regular basis, b) rotate between a minimum of three countries and, c) have at least 50 participants.

Source: The International Congress and Convention Association (ICCA)

14.05 Cultural and entertainment tourism digital demand

Number of online searches index (0–100 best) | 2014

This indicator measures the total online search volume related to the following cultural brandtags: Historical Sites, Local People, Local Traditions, Museums, Performing Arts, UNESCO, City Tourism, Religious Tourism, Local Gastronomy, Entertainment Parks, Leisure Activities, Nightlife and Special Events. The calculation is based on the proprietary D2 tool which assesses the attractiveness of each country by analyzing online tourism-related search data across the relevant brandtags, each comprising destination-specific keywords correlated to tourist activities and attractions. A total of 3,818,000 keywords were analyzed across nine languages: English, Spanish, French, Italian, German, Portuguese, Russian, Japanese and Chinese.

Source: Bloom Consulting based on Country Brand Ranking, Tourism Edition. Available at http://www.bloom-consulting.com/pdf/rankings/Bloom_Consulting_Country_Brand_Ranking_Tourism.pdf

PILLAR 14: CULTURAL RESOURCES AND BUSINESS TRAVEL

14.01 Number of World Heritage cultural sites

Number of World Heritage cultural sites in the country | 2014

World Heritage cultural sites are those properties that the World Heritage Committee considers as having outstanding universal value.

Source: UNESCO World Heritage List, available at <http://whc.unesco.org/en/list/>

14.02 Oral and intangible cultural heritage

Number of oral and intangible heritage practices and expressions | 2014

Intangible cultural heritage practices are those practices, representations, expressions, knowledge, skills—as well as the instruments, objects, artifacts and cultural spaces associated therewith—that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment and their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity. The Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage evaluates annually nominations proposed by States Parties to the Convention for the Safeguarding of the Intangible Cultural Heritage and decides whether or not to inscribe those cultural practices and expressions of intangible heritage on the Convention's Lists. For more details about the criteria for inscription, please visit <http://www.unesco.org/culture/ich/index.php?g=en&pg=00174>.

Source: UNESCO World Heritage List, available at <http://www.unesco.org/culture/ich/index.php?g=en&pg=00011>

14.03 Number of large sports stadiums

Total number of sports stadiums with a capacity larger than 20,000 million seats | 2013

The count of stadiums with a capacity of 20,000 seats or larger is a proxy for the ability of the country to host significant sports or entertainment events (i.e. concerts, shows).

Source: Strategy&, based on Worldstadiums.com