

# Technical Notes and Sources

This section complements the data tables by providing additional information for those indicators that are not derived from the World Economic Forum's Executive Opinion Survey. The number next to the variable corresponds to the number of the data table that shows the ranks and scores for all countries/economies on this particular indicator. Indicators in Sections I through XII enter the composition of the Global Competitiveness Index 2011–2012.

The data used in this *Report* represent the best available estimates at the time the *Report* was prepared. It is possible that some data will have been updated or revised after publication.

## Basic indicators

### 0.01 Gross domestic product

[Gross domestic product in billions of current US dollars | 2010](#)

Sources: International Monetary Fund, *World Economic Outlook Database* (April 2011 edition); national sources

### 0.02 Population

[Total population in millions | 2010](#)

Sources: United Nations Population Fund, *State of World Population 2010*; national sources

### 0.03 GDP per capita

[Gross domestic product per capita in current US dollars | 2010](#)

Sources: International Monetary Fund, *World Economic Outlook Database* (April 2011 edition); national sources

### 0.04 GDP as a share of world GDP

[Gross domestic product based on purchasing power parity as a percentage of world GDP | 2010](#)

Sources: International Monetary Fund, *World Economic Outlook Database* (April 2011 edition); national sources

## Section I: Institutions

### 1.21 Strength of investor protection

[Strength of Investor Protection Index on a 0–10 \(best\) scale | 2010](#)

This variable is a combination of the Extent of disclosure index (transparency of transactions), the Extent of director liability index (liability for self-dealing), and the Ease of shareholder suit index (shareholders' ability to sue officers and directors for misconduct).

Source: World Bank/International Finance Corporation, *Doing Business 2011: Making a Difference for Entrepreneurs*

## Section II: Infrastructure

### 2.06 Available airline seat kilometers

[Scheduled available airline seat kilometers per week originating in country \(in millions\) | 2011](#)

This variable measures the total passenger-carrying capacity of all scheduled flights, including domestic flights, originating from 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) 2011, and taking the average capacity of the two weeks.

Source: International Air Transport Association, SRS Analyser

### 2.08 Fixed telephone lines

[Number of active fixed telephone lines per 100 population | 2010](#)

A *fixed telephone line* is an active line connecting the subscriber's terminal equipment to the public switched telephone network (PSTN) and that has a dedicated port in the telephone exchange equipment. Active lines are those that have registered an activity in the past three months.

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators 2011* (June 2011 edition)

### 2.09 Mobile telephone subscriptions

[Number of mobile cellular telephone subscriptions per 100 population | 2010](#)

This measure refers to the subscriptions to a public mobile telephone service and provides access to 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 and 4G subscriptions, but excludes mobile broadband subscriptions via data cards or USB modems.

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators 2011* (June 2011 edition)

## Section III: Macroeconomic environment

### 3.01 Government budget balance

[General government budget balance as a percentage of GDP | 2010](#)

Net lending (+)/ borrowing (–) is calculated as general government revenue minus total expenditure. This is a core Government Finance Statistics (GFS) balance that measures the extent to which general government is either putting financial resources at the disposal of other sectors in the economy and nonresidents (net lending), or utilizing the financial resources generated by other sectors and nonresidents (net borrowing). This balance may be viewed as an indicator of the financial impact of general government activity on the rest of the economy and nonresidents. Revenue consists of taxes, social contributions, grants receivable, and other revenue. Revenue increases the government's net worth, which is the difference between its assets and liabilities. General government total expenditure consists of total expenses and the net acquisition of nonfinancial assets.

Sources: International Monetary Fund, *World Economic Outlook Database* (April 2011 edition); African Development Bank, *African Statistical Yearbook 2011*; AfricanEconomicOutlook.org (accessed July 1, 2011); national sources

### 3.02 Gross national savings

#### Gross national savings as a percentage of GDP | 2010

*Aggregate national savings* is defined as public- and private-sector savings as a percentage of nominal GDP. National savings equals gross domestic investment plus the current-account balance

Sources: International Monetary Fund, *World Economic Outlook Database* (April 2011 edition) and *Public Information Notices* (various issues); national sources

### 3.03 Inflation

#### Annual percent change in consumer price index (year average) | 2010

Annual percent change in year average consumer price index

Sources: International Monetary Fund, *World Economic Outlook Database* (April 2011 edition); national sources

### 3.04 Interest rate spread

#### Average interest rate spread between typical lending and deposit rates | 2010

This measures the difference between the typical short-term lending and deposit rates.

Sources: International Monetary Fund, International Financial Statistics' database (accessed July 17, 2011) and country tables (July 2011); Economist Intelligence Unit, *CountryData Database* (accessed July 17, 2011)

### 3.05 Government debt

#### Gross general government debt as a percentage of GDP | 2010

*Gross debt* consists of all liabilities that require payment or payments of interest and/or principal by the debtor to the creditor at a date or dates in the future. This includes debt liabilities in the form of special drawing rights, currency and deposits, debt securities, loans, insurance, pensions and standardized guarantee schemes, and other accounts payable. Thus, all liabilities in the *Government Finance Statistics Manual 2001* system are debt, except for equity and investment fund shares and financial derivatives and employee stock options.

Sources: International Monetary Fund, *World Economic Outlook Database* (April 2011 edition) and *Public Information Notices* (various issues); Asian Development Bank, *Asian Development Outlook 2011*; Economist Intelligence Unit, *CountryData Database* (accessed July 17, 2011); national sources

### 3.06 Country credit rating

#### Expert assessment of the probability of sovereign debt default on a 0–100 (lowest probability) scale | March 2011

*Institutional Investor's* Country Credit ratings developed by Institutional Investor are based on information provided by senior economists and sovereign-debt analysts at leading global banks and money management and security firms. Twice a year, the respondents grade each country on a scale of 0 to 100, with 100 representing the least chance of default.

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## Section IV: Health and primary education

### 4.02 Malaria incidence

#### Number of malaria cases per 100,000 population | 2006

Country data are provided only for economies in which malaria is considered to be endemic. In the data table, "(NE)" denotes an economy where malaria is not endemic. Incidence rates in Cape Verde and Jamaica are calculated based on reported cases, as countrywide estimates are not available. Incidence rates in these two countries are likely to be underestimated.

Sources: World Health Organization, *World Malaria Report 2008*; national sources

### 4.04 Tuberculosis incidence

#### Number of tuberculosis cases per 100,000 population | 2009

Sources: The World Bank, *World Development Indicators* & *Global Development Finance* Catalog (April 2011 edition); national sources

### 4.06 HIV prevalence

#### HIV prevalence as a percentage of adults aged 15–49 years | 2009

Sources: UNAIDS, *Global Report on the Global AIDS Epidemic* (2008 and 2010 editions); United Nations Development Programme, *Human Development Report 2007/2008*; national sources

### 4.07 Infant mortality

#### Infant (children aged 0–12 months) mortality per 1,000 live births | 2009

Sources: The World Bank, *World Development Indicators* & *Global Development Finance* Catalog (April 2011 edition); national sources

### 4.08 Life expectancy

#### Life expectancy at birth (years) | 2009

Sources: The World Bank, *World Development Indicators* & *Global Development Finance* Catalog (April 2011 edition); national sources

### 4.10 Primary education enrollment rate

#### Net primary education enrollment rate | 2008

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.

Sources: UNESCO Institute for Statistics (accessed May 4, 2011); UNICEF ChildInfo.org Country Profiles; UN Millennium Development Indicators; The World Bank, *EdStats Database* (accessed July 8, 2011); national sources

## Section V: Higher education and training

### 5.01 Secondary education enrollment rate

#### Gross secondary education enrollment rate | 2008

The reported value corresponds to the ratio of total secondary enrollment, 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.

Sources: UNESCO Institute for Statistics (accessed May 4, 2011); UNICEF ChildInfo.org Country Profiles; The World Bank, *EdStats Database* (accessed July 8, 2011); national sources and *The World Development Indicators 2009* (CD-Rom edition)

### 5.02 Tertiary education enrollment rate

#### Gross tertiary education enrollment rate | 2008

The reported value corresponds to the ratio of total tertiary enrollment, regardless of age, to the population of the age group that officially corresponds to the tertiary education level. Tertiary education (ISCED levels 5 and 6), whether or not leading to an advanced research qualification, normally requires, as a minimum condition of admission, the successful completion of education at the secondary level.

Sources: UNESCO Institute for Statistics (accessed May 4, 2011); UNICEF ChildInfo.org Country Profiles; The World Bank, *EdStats Database* (accessed July 8, 2011); national sources and *The World Development Indicators 2009* (CD-Rom edition)

## Section VI: Goods market efficiency

### 6.05 Total tax rate

This variable is a combination of profit tax (% of profits), labor tax and contribution (% of profits), and other taxes (% of profits) | 2010

The total tax rate measures the amount of taxes and mandatory contributions payable by the business in the second year of operation, 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 labor 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, please visit <http://www.doingbusiness.org/methodology-surveys/>.

Source: World Bank/International Finance Corporation, *Doing Business 2011: Making a Difference for Entrepreneurs*

### 6.06 Number of procedures required to start a business

Number of procedures required to start a business | 2010

For details about the methodology employed and the assumptions made to compute this indicator, please visit <http://www.doingbusiness.org/methodology-surveys/>.

Source: World Bank/International Finance Corporation, *Doing Business 2011: Making a Difference for Entrepreneurs*

### 6.07 Time required to start a business

Number of days required to start a business | 2010

For details about the methodology employed and the assumptions made to compute this indicator, please visit <http://www.doingbusiness.org/methodology-surveys/>.

Source: World Bank/International Finance Corporation, *Doing Business 2011: Making a Difference for Entrepreneurs*

### 6.10 Trade tariffs

Trade-weighted average tariff rate | 2010

This indicator is calculated as the average of the applied tariff rates, including preferential rates that a country applies to the rest of the world. The trade pattern of the importing country's reference group (2007 data) is used as a weighting.

Source: International Trade Centre

### 6.14 Imports as a percentage of GDP

Imports of goods and services as a percentage of gross domestic product | 2010

Source: World Trade Organization, *Statistics Database: Time Series on International Trade* (accessed July 4, 2011); Economist Intelligence Unit, *CountryData Database* (accessed July 4, 2011)

## Section VII: Labor market efficiency

### 7.03 Rigidity of employment

Rigidity of Employment Index on a 0–100 (worst) scale | 2009

This index is the average of three subindexes: Difficulty of hiring, Rigidity of hours, and Difficulty of firing. The three subindexes have several components and all take values between 0 and 100, with higher values indicating more rigid regulation.

Source: World Bank/International Finance Corporation, *Doing Business 2010: Reforming Through Difficult Times*

### 7.05 Redundancy costs

Redundancy costs in weeks of salary | 2009

This variable estimates the cost of advance notice requirements, severance payments, and penalties due when terminating a redundant worker, expressed in weekly wages.

Source: World Bank/International Finance Corporation, *Doing Business 2010: Reforming Through Difficult Times*

### 7.09 Female participation in labor force

Ratio of female participation in the labor force (%) to male participation in the labor force (%) | 2009

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

Sources: International Labour Organization, *Key Indicators of the Labor Markets Net* (accessed May 4, 2011); national sources

## Section VIII: Financial market development

### 8.08 Legal rights index

Degree of legal protection of borrowers and lenders' rights on a 0–10 (best) scale | 2010

This index measures the degree to which collateral and bankruptcy laws protect borrowers and lenders' rights and thus facilitate lending.

Source: World Bank/International Finance Corporation, *Doing Business 2011: Making a Difference for Entrepreneurs*

## Section IX: Technological readiness

### 9.04 Internet users

Percentage of individuals using the Internet | 2010

*Internet users* refers to people using the Internet from any device (including mobile phones) in the last 12 months.

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators 2011* (June 2011 edition)

### 9.05 Broadband Internet subscriptions

Number of fixed broadband Internet subscriptions per 100 population | 2010

*Fixed (wired) broadband Internet subscriptions* refers to subscriptions to high-speed access to the public Internet (a TCP/IP connection), at downstream speeds equal to, or greater than, 256 kb/s. This can include, for example, cable modem, DSL, fiber-to-the-home/building, and other fixed (wired) broadband subscriptions. This total is measured irrespective of the method of payment. It excludes subscriptions that have access to data communications (including the Internet) via mobile cellular networks.

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators 2011* (June 2011 edition)

### 9.06 Internet bandwidth

International Internet bandwidth (kb/s/capita) | 2010

*Internet bandwidth* is measured as the sum of the capacity of all Internet exchanges offering international bandwidth. The data were rescaled for the sake of readability. The capacity is measured in kilobits per second (kb/s) per capita.

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators 2011* (June 2011 edition)

## Section X: Market size

### 10.01 Domestic market size index

Sum of gross domestic product plus value of imports of goods and services, minus value of exports of goods and services, normalized on a 1–7 (best) scale | 2010

The size of the domestic market is calculated as the natural log of the sum of the gross domestic product valued at PPP plus the total value (PPP estimates) of imports of goods and services, minus the total value (PPP estimates) of exports of goods and services. Data are then normalized on a 1–7 scale. PPP estimates of imports and exports are obtained by taking the product of exports as a percentage of GDP and GDP valued at PPP.

Source: Authors' calculation. For more details, refer to the appendix to Chapter 1.1 of this Report.

## 10.02 Foreign market size index

### Value of exports of goods and services, normalized on a 1–7 (best) scale | 2010

The size of the foreign market is estimated as the natural log of the total value (PPP estimates) of exports of goods and services, normalized on a 1–7 scale. PPP estimates of exports are obtained by taking the product of exports as a percentage of GDP and GDP valued at PPP.

Source: Authors' calculation. For more details, refer to the appendix to Chapter 1.1 of this *Report*.

## 10.03 GDP (PPP)

### Gross domestic product valued at purchasing power parity in billions of international dollars | 2010

Sources: International Monetary Fund, *World Economic Outlook Database* (April 2011 edition); national sources

## 10.04 Exports as a percentage of GDP

### Exports of goods and services as a percentage of gross domestic product | 2010

Sources: World Trade Organization, Statistics Database: Time Series on International Trade (accessed July 4, 2011); Economist Intelligence Unit, *CountryData Database* (accessed July 4, 2011)

## Section XII: Innovation

### 12.07 USPTO patents grants

#### Number of utility patents (i.e., patents for invention) granted in 2010, per million population | 2010

Utility patents are recorded such that the origin of the patent is determined by the first-named inventor at the time of the grant.

Sources: United States Patent and Trademark Office; United Nations Fund for Population