

# Technical Notes and Sources

The following section complements the Data Tables by providing additional information and definitions for the hard data indicators that enter the composition of the Global Competitiveness Index 2008–2009. In the following pages, 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.

The data used in this *Report* represent the best available estimates from various international agencies, private sources, and national authorities 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 GDP valued at current prices (hard data)

Gross domestic product (current prices) in millions of US dollars | 2007

Source: IMF, *World Economic Outlook Database* (April 2008); national sources

### 0.02 Population (hard data)

Population in millions | 2007

Source: UNFPA, *State of World Population 2007*; IMF, *World Economic Outlook Database* (April 2008); Economist Intelligence Unit, *CountryData Database* (May 2008); national sources

### 0.03 GDP (current prices) per capita (hard data)

Gross domestic product (current prices) per capita in US dollars | 2007

Source: IMF, *World Economic Outlook Database* (April 2008); European Bank for Reconstruction and Development; national sources

## Section II: Infrastructure

### 2.06 Available seat kilometers (hard data)

Scheduled available seat kilometers per week originating in country (in millions) | January 2008 and June 2008 average

This variable measures an airline's passenger-carrying capacity; it is composed of the number of seats available on each flight originating in the country multiplied by the flight distance in kilometers. The resulting variable is an average of the total for all scheduled flights in a week during January (winter schedule) and June (summer schedule) 2008.

Source: International Air Transport Association, SRS Analyser

### 2.08 Telephone lines (hard data)

Main telephone lines per 100 population | 2006

A main telephone line is a telephone line connecting the subscriber's terminal equipment to the public switched telephone network and that has a dedicated port in the telephone exchange equipment.

Source: International Telecommunication Union, *World Telecommunication Indicators* (June 2008 update); national sources

## Section III: Macroeconomic stability

### 3.01 Government surplus/deficit (hard data)

Central government gross surplus/deficit as a percentage of GDP | 2007

Source: IMF, *World Economic Outlook Database* (April 2008); IMF country reports; European Central Bank; European Bank for Reconstruction and Development; African Development Bank; Economist Intelligence Unit, *CountryData Database* (June 2008); national sources

### 3.02 National savings rate (hard data)

National savings rate as a percentage of GDP | 2007

Source: IMF, *World Economic Outlook Database* (April 2008); Economist Intelligence Unit, *CountryData Database* (June 2008); The World Bank, *World Development Indicators 2008*; national sources

### 3.03 Inflation (hard data)

Annual percent change in consumer price index | 2007 average

Source: IMF, *World Economic Outlook Database* (April 2008); national sources

### 3.04 Interest rate spread (hard data)

Average interest rate spread (difference between typical lending and deposit rates) | 2007

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

Source: IMF, *International Financial Statistics*; Economist Intelligence Unit, *CountryData Database* (June 2008); *World Development Indicators 2008*; national sources

### 3.05 Government debt (hard data)

Government gross debt as a percentage of GDP | 2007

Source: IMF, *World Economic Outlook Database* (April 2008); IMF country reports; OECD, *OECD Economic Outlook* no. 83 (June 2008); European Central Bank; European Bank for Reconstruction and Development; Economist Intelligence Unit, *CountryData Database* (June 2008); national sources

## Section IV: Health and primary education

### 4.02 Malaria incidence (hard data)

Number of malaria cases per 100,000 population | 2003

Source: World Health Organization, *Global Health Atlas* database (July 2008); World Health Organization Regional Offices; The World Bank, *World Development Indicators 2007*; UNDP, *Human Development Report 2006*; national sources

### 4.04 Tuberculosis incidence (hard data)

Number of tuberculosis cases per 100,000 population | 2006

Source: World Health Organization, *Global Atlas of Infectious Diseases* database (May 2008); national sources

#### 4.06 HIV prevalence (hard data)

[HIV prevalence as a percentage of adults aged 15–49 years | 2007](#)

Source: UNAIDS, *2008 Report on the Global AIDS Epidemic*; UNDP, *Human Development Report 2006*; national sources

#### 4.07 Infant mortality (hard data)

[Infant \(children aged 0–12 months\) mortality per 1,000 live births | 2005](#)

Source: World Health Organization, *WHO Statistical Information System (WHOSIS)* (May 2008); national sources

#### 4.08 Life expectancy (hard data)

[Life expectancy at birth \(years\) | 2006](#)

Source: World Health Organization, *WHO Statistical Information System (WHOSIS)* (May 2008); UNDP, *Human Development Report 2007/2008* online database (May 2008); national sources

#### 4.10 Primary enrollment (hard data)

[Net primary education enrollment rate | 2006](#)

According to the World Bank's *World Development Indicators*, this 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 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 (June 2008); The World Bank, *World Development Indicators 2008*; national sources

#### 4.11 Education expenditure (hard data)

[Adjusted savings: Education expenditure as percentage of GNI | 2006](#)

Current operating expenditures in education, including wages and salaries and excluding capital investments in buildings and equipment.

Source: The World Bank, *World Development Indicators 2008*; national sources

### Section V: Higher education and training

#### 5.01 Secondary enrollment (hard data)

[Gross secondary education enrollment rate | 2006](#)

According to the World Bank's *World Development Indicators*, this corresponds to the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the secondary education level. Secondary education completes the provision of basic education that began at the primary level, and aims at laying the foundations for lifelong learning and human development, by offering more subject- or skill-oriented instruction using more specialized teachers.

Source: UNESCO Institute for Statistics (June 2008); The World Bank, *World Development Indicators 2008*; national sources

#### 5.02 Tertiary enrollment (hard data)

[Gross tertiary education enrollment rate | 2006](#)

According to the World Bank's *World Development Indicators*, this corresponds to the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the tertiary education level. Tertiary education, 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.

Source: UNESCO Institute for Statistics (June 2008); The World Bank, *World Development Indicators 2008*; national sources

### Section VI: Goods market efficiency

#### 6.05 Total tax rate (hard data)

This variable is a combination of profit tax (% of profits), labor tax and contribution (% of profits), and other taxes (% of profits) | 2007

Source: The World Bank, *Doing Business 2008*

#### 6.06 Number of procedures required to start a business (hard data)

[Number of procedures required to start a business | 2007](#)

Source: The World Bank, *Doing Business 2008*

#### 6.07 Time required to start a business (hard data)

[Number of days required to start a business | 2007](#)

Source: The World Bank, *Doing Business 2008*

#### 6.10 Trade-weighted tariff rate (hard data)

[The average rate of duty per imported value unit | 2007](#)

This variable measures the average rate of duty per imported value unit weighted by 2006 imports value.

Source: International Trade Centre

### Section VII: Labor market efficiency

#### 7.03 Non-wage labor costs (hard data)

This variable estimates social security payments and payroll taxes associated with hiring an employee in fiscal year 2006, expressed as a percentage of the worker's salary | 2007

Social security payments include retirement fund, sickness, maternity and health insurance, workplace injury, family allowance, and other obligatory contributions.

Source: The World Bank, *Doing Business 2008*

#### 7.04 Rigidity of employment (hard data)

[Rigidity of Employment Index on a 0–100 \(worst\) scale | 2007](#)

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: The World Bank, *Doing Business 2008*

#### 7.06 Firing costs (hard data)

[Firing costs \(in weeks of wages\) | 2007](#)

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

Source: The World Bank, *Doing Business 2008*

#### 7.10 Female participation in labor force (hard data)

[Female participation in the labor force as a percentage of male participation | 2006](#)

This measure is the percentage of women aged 14–65 participating in the labor force divided by the percentage of men aged 14–65 participating in the labor force.

Source: International Labour Organization, *Key Indicators of the Labour Market (KILM) 5th Edition* (2006)

## Section VIII: Financial market sophistication

### 8.06 Strength of investor protection (hard data)

[Strength of Investor Protection Index on a 0–10 \(best\) scale | 2007](#)

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: The World Bank, *Doing Business 2008*

### 8.09 Legal rights index (hard data)

[Strength of legal rights index on a 0–10 \(best\) scale | 2007](#)

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

Source: The World Bank, *Doing Business 2008*

## Section IX: Technological readiness

### 9.05 Mobile telephone subscribers (hard data)

[Mobile telephone subscribers per 100 population | 2006](#)

The term *subscribers* refers to users of mobile telephones subscribing to an automatic public mobile telephone service that provides access to the public switched telephone network using cellular technology. This can include analogue and digital cellular systems but should not include non-cellular systems. Subscribers to fixed wireless, public mobile data services, or radio paging services are not included.

Source: International Telecommunication Union, *World Telecommunication Indicators* (June 2008 update); national sources

### 9.06 Internet users (hard data)

[Internet users per 100 population | 2006](#)

*Internet users* are people with access to the worldwide network.

Source: International Telecommunication Union, *World Telecommunication Indicators* (June 2008 update); national sources

### 9.07 Personal computers (hard data)

[Personal computers per 100 population | 2006](#)

According to the World Bank, *personal computers* are self-contained computers designed to be used by a single individual.

Source: International Telecommunication Union, *World Telecommunication Indicators* (June 2008 update); national sources

### 9.08 Broadband Internet subscribers (hard data)

[Broadband internet subscribers per 100 population | 2006](#)

The International Telecommunication Union considers broadband to be any dedicated connection to the Internet of 256 kilobits per second or faster, in both directions. *Broadband subscribers* refers to the sum of DSL, cable modem, and other broadband (for example, fiber optic, fixed wireless, apartment LANs, satellite connections) subscribers.

Source: International Telecommunication Union, *World Telecommunication Indicators* (June 2008 update); national sources

## Section X: Market size

### 10.01 Domestic market size index (hard data)

[Sum of gross domestic product plus value of imports of goods and services, minus the value of exports of goods and services, normalized on a 1–7 \(best\) scale | 2007](#)

The size of the domestic market is estimated 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' calculations; IMF, *World Economic Outlook Database* (April 2008); Economist Intelligence Unit, *CountryData Database* (May 2008); The World Bank, *World Development Indicators 2008*; national sources

### 10.02 Foreign market size index (hard data)

[Value of exports of goods and services, normalized on a 1–7 \(best\) scale | 2007](#)

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 is obtained by taking the product of exports as a percentage of GDP and GDP valued at PPP.

Source: Authors' calculations; IMF, *World Economic Outlook Database* (April 2008); Economist Intelligence Unit, *CountryData Database* (May 2008); The World Bank, *World Development Indicators 2008*; national sources

### 10.03 GDP valued at PPP (hard data)

[Gross domestic product valued at purchasing power parity in millions of international dollars | 2007](#)

Source: IMF, *World Economic Outlook Database* (April 2008); national sources

### 10.04 Imports as a percentage of GDP (hard data)

[Imports of goods and services as a percentage of GDP | 2007](#)

Source: Economist Intelligence Unit, *CountryData Database* (May 2008); The World Bank, *World Development Indicators 2007*; national sources

### 10.05 Exports as a percentage of GDP (hard data)

[Exports of goods and services as a percentage of GDP | 2007](#)

Source: Economist Intelligence Unit, *CountryData Database* (May 2007); The World Bank, *World Development Indicators 2007*; The World Bank, *World Development Indicators 2008*; national sources

## Section XII: Innovation

### 12.07 Utility patents (hard data)

[Number of utility patents \(i.e., patents for invention\) granted between January 1 and December 31, 2007, per million population | 2007](#)

Utility patents are recorded such that the origin of the patent is determined by the first-named inventor at the time of the grant. Patents per million population are calculated by dividing the number of patents granted to a country in 2006 by that country's population in the same year.

Source: The United States Patent and Trademark Office (June 2008)