

Technical Notes and Sources

The present section complements the Data Tables by providing additional information for the hard data indicators that enter the composition of the Networked Readiness Index. The data used in this *Report* represent the most recent available figures from various international agencies, private sources, and national authorities at the time when the data collection process took place. It is possible that some data have been updated or revised since then.

Pillar 1: Market environment

1.05 Utility patents

[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 2007 by that country's population in the same year.

Source: US Patent and Trademark Office, *Patents By Country, State, and Year—Utility Patents* (December 2007); The World Bank, *World Development Indicators Online Database* (retrieved November 4, 2008); national sources

1.06 High-tech exports

[High-technology exports as a percentage of total goods exports | 2006 or most recent year available](#)

The value of high-technology exports is expressed as a percentage of the value of manufactured goods exports. According to the World Bank, high-technology exports are products with high R&D intensity, as in aerospace, computers, pharmaceuticals, and scientific instruments.

Source: The World Bank, *World Development Indicators Online Database* (October 2008); Economist Intelligence Unit, *CountryData Database* (retrieved January 9, 2009); authors' estimates based on United Nations Statistics Division's COM-TRADE database (retrieved January 9, 2009); national sources

1.09 Total tax rate

[This variable is a combination of profit tax \(percents of profits\), labor tax and contribution \(percents of profits\), and other taxes \(percents of profits\) | 2007](#)

For details about the methodology employed and the assumptions made to compute this indicator, please consult the Doing Business project's dedicated page at www.doingbusiness.org/methodologysurveys/.

Source: The World Bank Group, *Doing Business 2009*

1.10 Time required to start a business

[Number of days required to start a business | 2008](#)

For details about the methodology employed and the assumptions made to compute this indicator, please consult the Doing Business project's dedicated page at www.doingbusiness.org/methodologysurveys/.

Source: The World Bank Group, *Doing Business 2009*

1.11 Number of procedures required to start a business

[Number of procedures required to start a business | 2008](#)

For details about the methodology employed and the assumptions made to compute this indicator, please consult the Doing Business project's dedicated page at www.doingbusiness.org/methodologysurveys/.

Source: The World Bank Group, *Doing Business 2009*

Pillar 2: Political and regulatory environment

2.08 Number of procedures to enforce a contract

[Number of procedures from the moment the plaintiff files a lawsuit in court until the moment of payment | 2008](#)

For details about the methodology employed and the assumptions made to compute this indicator, please consult the Doing Business project's dedicated page at www.doingbusiness.org/methodologysurveys/.

Source: The World Bank Group, *Doing Business 2009*

2.09 Time to enforce a contract

[Number of days required to resolve a dispute | 2008](#)

For details about the methodology employed and the assumptions made to compute this indicator, please consult the Doing Business project's dedicated page at www.doingbusiness.org/methodologysurveys/.

Source: The World Bank Group, *Doing Business 2009*

Pillar 3: Infrastructure environment

3.01 Telephone lines

[Main telephone lines per 100 population | 2007 or most recent year available](#)

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/ICT Indicators 2008* (September 2008 update)

3.02 Secure Internet servers

[Secure Internet servers per million population | 2007 or most recent year available](#)

Secure Internet servers are servers using encryption technology in Internet transactions.

Source: The World Bank, *World Development Indicators Online Database* (retrieved November 4, 2008)

3.03 Electricity production**Electricity production (kWh) per capita | 2005 or most recent year available**

Electricity production is measured at the terminals of all alternator sets in a station. In addition to hydropower, coal, oil, gas, and nuclear power generation, it covers generation by geothermal, solar, wind, and tide and wave energy as well as that from combustible renewables and waste. Production includes the output of electricity plants designed to produce electricity only, as well as that of combined heat and power plants.

Source: The World Bank, *World Development Indicators Online Database* (retrieved November 4, 2008); US Central Intelligence Agency, *The World Factbook* (retrieved October 23, 2008); national sources

3.06 Tertiary education enrollment**Gross tertiary education enrollment rate | 2006 or most recent year available**

The reported value corresponds to the total enrollment in tertiary education expressed as a percentage of the population of the five-year age group following on from the secondary school-leaving age. Note that the gross enrollment rate (GER) can exceed 100 percent due to early or late entry and/or grade repetition.

According to UNESCO, tertiary education is composed of two stages. The first stage of tertiary education, ISCED level 5, includes level 5A, composed of largely theoretically based programs intended to provide sufficient qualifications for gaining entry to advanced research programs and professions with high skill requirements; and level 5B, where programs are generally more practical, technical, and/or occupationally specific.

The second stage, ISCED level 6, comprises programs devoted to advanced study and original research, leading to the award of an advanced research qualification.

Source: UNESCO, Institute for Statistics (retrieved January 12, 2008); UNESCO, Education for All Global Monitoring Report 2008—*Education for All by 2015: Will We Make It?*; national sources

3.07 Education expenditure**Education expenditure as a percentage of GNI | 2006 or most recent year available**

This variable refers to public current operating expenditures in education, including wages and salaries and excluding capital investments in buildings and equipment.

Source: The World Bank, *World Development Indicators Online Database* (retrieved November 4, 2008)

Pillar 4: Individual readiness**4.05 Residential telephone connection charge****One-time residential telephone connection charge (US\$) as a percentage of GDP per capita | 2007 or most recent year available**

This measure refers to the one-time charge involved in applying for basic telephone service for residential purposes.

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators 2008* (September 2008 update); International Monetary Fund, *World Economic Outlook Database* (October 2008 edition); national sources

4.06 Residential monthly telephone subscription**Residential monthly telephone subscription (US\$) as a percentage of monthly GDP per capita | 2007 or most recent year available**

Residential monthly telephone subscription refers to the recurring fixed charge for a residential subscriber to the public switched telephone network (PSTN). The charge should cover the rental of the line but not the rental of the terminal (for example, the telephone set) where the terminal equipment market is liberalized. In some cases, the rental charge includes an allowance for free or reduced-rate call units. If there are different charges for different exchange areas, the largest urban area is used.

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators 2008* (September 2008 update); International Monetary Fund, *World Economic Outlook Database* (October 2008 edition); national sources

4.07 High-speed monthly broadband subscription**High-speed monthly broadband subscription charge (US\$) as a percentage of monthly GDP per capita | 2006 or most recent year available**

The International Telecommunication Union considers *broadband* to be any dedicated connection to the Internet of 256 kilobits per second (kb/s) or faster, in both directions. The monthly charge reflects the Internet service provider charge for one month of service. It does not include installation fees or modem rental charges if they are charged separately. Speed expressed in kb/s represents the advertised maximum theoretical download speed and not speeds guaranteed to users. *High-speed monthly charge* refers to a faster and typically more expensive offer available in the economy.

Source: International Telecommunication Union, *World Information Society Report 2007*; International Monetary Fund, *World Economic Outlook Database* (October 2007 edition); national sources

4.08 Lowest cost of broadband**Lowest sampled cost (US\$) per 100 kb/s as a percentage of monthly GNI | 2006 or most recent year available**

The lowest sampled cost in US dollars per 100 kilobits per second (kb/s) gives the most cost-effective subscription based on criteria of least cost per 100 kb/s. The International Telecommunication Union calculates this cost by dividing the monthly subscription charge in US dollars by the theoretical download speed, and then multiplying by 100. The lowest cost per 100 kb/s across all Internet services providers is used to compute the lowest sampled cost as a percentage of monthly GNI.

Source: International Telecommunication Union, *World Information Society Report 2007*

4.09 Cost of mobile telephone call**Cost of 3-minute local call during peak hours (US\$) as a percentage of monthly GDP per capita | 2006 or most recent year available**

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators 2008* (September 2008 update); International Monetary Fund, *World Economic Outlook Database* (October 2007 edition)

Pillar 5: Business readiness**5.06 Business telephone connection charge****One-time business telephone connection charge (US\$) as a percentage of GDP per capita | 2007 or most recent year available**

This measure refers to the one-time charge involved in applying for basic telephone service for business purposes.

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators 2008* (September 2008 update); International Monetary Fund, *World Economic Outlook Database* (October 2008 edition); national sources

5.07 Business monthly telephone subscription

Business monthly telephone subscription (US\$) as a percentage of monthly GDP per capita | 2007 or most recent year available

Business monthly telephone subscription refers to the recurring fixed charge for a business subscriber to the public switched telephone network.

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators 2008* (September 2008 update); International Monetary Fund, *World Economic Outlook Database* (October 2008 edition); national sources

5.10 Computer, communications, and other services imports

Computer, communications, and other services as percentage of total commercial services imports | 2007 or most recent year available

Computer, communications, and other services include such activities as international telecommunications; portal and courier services; computer data; news-related service transactions between residents and nonresidents; construction services; royalties and license fees; miscellaneous business, professional, and technical services; and personal, cultural, and recreational services. The total volume of computer, communications, and other services imports is divided by the total volume of commercial service imports, defined as the total service imports minus imports of government services not included elsewhere.

Source: The World Bank, *World Development Indicators Online Database* (retrieved October 20, 2008)

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators 2008* (September 2008 update)

7.04 Internet users

Internet users per 100 population | 2007 or most recent year available

Internet users are people with access to the worldwide network.

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators 2008* (September 2008 update)

7.05 Internet bandwidth

International Internet bandwidth (mB/s) per 10,000 population | 2007 or most recent year available

This measure shows the total capacity of international Internet bandwidth in megabits per second.

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators 2008* (September 2008 update)

Pillar 9: Government usage

9.05 E-Participation Index

The E-Participation Index assesses the quality, relevance, usefulness, and willingness of government websites for providing online information and participatory tools and services to the people | 2008

Source: United Nations, *e-Government Survey 2008: From e-Government to Connected Governance*

Pillar 6: Government readiness

6.04 E-Government Readiness Index

The E-Government Readiness Index assesses e-government readiness based on website assessment, telecommunications infrastructure, and human resource endowment | 2008

Source: United Nations, *e-Government Survey 2008: From e-Government to Connected Governance*

Pillar 7: Individual usage

7.01 Mobile telephone subscribers

Mobile telephone subscribers per 100 population | 2007 or most recent year available

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 noncellular systems. Subscribers to fixed wireless, public mobile data services, or radio paging services are not included.

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators 2008* (September 2008 update)

7.02 Personal computers

Personal computers per 100 population | 2006 or most recent year available

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/ICT Indicators 2008* (September 2008 update)

7.03 Broadband Internet subscribers

Total broadband Internet subscribers per 100 population | 2007 or most recent year available

The International Telecommunication Union considers *broadband* to be any dedicated connection to the Internet of 256 kilobits per second (kb/s) 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.