

# CORRELATES OF THE GOOD SOCIETY

## SÖREN HOLMBERG BO ROTHSTEIN

#### WORKING PAPER SERIES 2014:13

QOG THE QUALITY OF GOVERNMENT INSTITUTE Department of Political Science University of Gothenburg Box 711, SE 405 30 GÖTEBORG November 2014 ISSN 1653-8919 © 2014 by Sören Holmberg and Bo Rothstein. All rights reserved.

## Content

Good Society Index	
Defining the Good Society Index	5
Table 1. The Good Society Index Country Rankings	7
Economy	
GDP per Capita	9
Tax Revenue	10
Economic Freedom of the World Index	11
Economic Freedom Index	12
Gini Index	13
Agriculture's Share of Economy	14
Service's Share of Economy	15
Quality of Overall Infrastructure	16
Internet Users	17
Country Credit Rating	18
Welfare	
Human Development Index	19
Health	
Total Health Expenditure	20
Public Health Expenditure	21
Private Health Expenditure	22
Environment	
Access to Sanitation	23
Access to Drinking Water	24
CO <sub>2</sub> Emissions per Capita	25
Environmental Performance Index	26
Gender	
Share of Women in Parliament (Lower House)	27
Gender Equality	28
Violence/Crime	
Number of Police Officers	29
Homicide Rate	30
Conviction Rate	31
Military Expenditure	32

Trust	
Public Trust in Politicians	33
Interpersonal Trust	34
Quality of Government	
Impartial Public Administration	35
Professional Public Administration	36
Corruption Perception Index	37
Government Effectiveness	38
Rule of Law	39
Political System	
Checks and Balances	40
Government Fractionalization Index	41
Index of Democracy	42
Level of Democracy	43
Failed States Index	44
Parliamentary Powers Index	45
Political Constraints Index V	46
Electoral System	
Effective Number of Electoral Parties	47
Electoral System Type-3 Classes	48
Electoral Competition	49
Education	
Average Years of Education (Female)	50
Average Years of Education (Male)	51
Quality of the Educational System	52
Brain Drain	53
Religion	
Christianity	54
Islam	55
Religiosity	56
Geography	
Latitude (Distance from the Equator)	57
Urban Population	58
Description of Variables	59
References	70

### The Good Society Index

The Good Society Index builds on three basic premises. First, the index consists of birth and deaths of human beings as well as the quality of life of people. The second premise is that the Good Society Index should adhere to lex parsimoniae, that is to the principle of Ockham's razor, meaning that a model should use a minimum number of explanatory variables. Third, the index measures subjective as well as objective characteristics. Subjective and objective indicators need to be combined, neither is sufficient as of its own. Given these three premises the Good Society Index is operationally constructed using:

- Infant mortality data from the World Bank (World Development Indicators) (2011)
- Life expectancy data from the World Bank (World Development Indicators) (2012)
- Happiness data from the United Nations (World Happiness Report/Gallup) (2013)

The three indicators all carry the same weight. Furthermore, the index is based on ranks, not on rates, which means that the countries' rank orders are utilized to build the composite index. The rank orders of each country have been summed and divided by three to yield an index value that in theory can vary between 1 (top nation on the Good Society Index) and 149 (bottom country). A top index value of 1 and a bottom value of 149 thus tell us that these specific countries are closest and furthest away respectively from the good society among the investigated nations. But the figures do not tell how close or how far away from the maximum good society the countries are. The index is not continuous; it is a rank order scale. (Holmberg 2007)<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> The analyses and the scatter plots for this report have been done with help from Richard Svensson.

## Table 1. The Good Society Index Country Rankings

Rank	Country	GSI
1	Sweden	5,67
2	Iceland	6,00
3	Norway	7,00
4	Switzerland	9,67
5	Finland	12,00
6	Singapore	12,33
7	Netherlands	12,67
8	Australia	13,00
9	Israel	13,33
10	Denmark	13,67
11	Austria	15,33
12	Luxembourg	15,67
13	Japan	16,33
14	Canada	16,67
15	France	17,33
16	Ireland	18,00
17	New Zealand	19,33
18	Italy	20,00
19	Germany	20,67
20	Belgium	21,33
21	Spain	21,67
22	United Kingdom	22,33
23	Cyprus	23,00
24	Slovenia	24,00
25	Korea, South	27,00
26	Czech Republic	29,00
27	United Arab Emirates	29,00
28	United States	29,00
29	Costa Rica	29,67
30	Malta	30,67
31	Qatar	33,00
32	Chile	34,33
33	Greece	36,00
34	Portugal	40,00
35	Mexico	40,00
36	Poland	40,67
37	Croatia	41,00
38	Estonia	41,00
39	Uruguay	42,33

40	Argentina	44,00
41	Slovakia	44,00
42	Panama	44,00
43	Kuwait	46,00
44	Venezuela	46,33
45	Saudi Arabia	47,00
46	Oman	47,67
47	Malaysia	49,33
48	Thailand	50,67
49	Albania	53,00
50	Brazil	57,00
51	Bahrain	57,33
52	Lithuania	57,67
53	Montenegro	57,67
54	Ecuador	58,33
55	Colombia	59 <i>,</i> 00
56	Belarus	59,67
57	Vietnam	62,67
58	Peru	63,00
59	Libya	63,00
60	Bosnia and Herzegovina	63,33
61	Latvia	64,67
62	Hungary	65 <i>,</i> 00
63	Serbia	65,67
64	Turkey	66,00
65	El Salvador	68,00
66	Mauritius	68,00
67	Trinidad and Tobago	70,67
68	Romania	70,67
69	Nicaragua	71,67
70	Moldova	71,67
71	Macedonia	71,67
72	Russia	72,00
73	Paraguay	73,00
74	Jordan	73,33
75	Lebanon	74,00
76	Tunisia	74,33
77	Suriname	74,33
78	Guatemala	74,33
79	Jamaica	75,33

80	China	75,33
81	Ukraine	75,33
82	Sri Lanka	78,67
83	Honduras	80,00
84	Algeria	81,00
85	Kazakhstan	83,00
86	Syria	83,00
87	Dominican Republic	84,00
88	Armenia	86,00
89	Indonesia	86,33
90	Bulgaria	86,67
91	Bolivia	87,00
92	Uzbekistan	89,67
93	Philippines	90,33
94	Kyrgyzstan	91,33
95	Morocco	92,33
96	Iran	92,67
97	Georgia	92,67
98	Turkmenistan	93,00
99	Egypt	93,33
100	Mongolia	98,00
101	Iraq	98,67
102	Azerbaijan	100,33
103	Bangladesh	100,33
104	Laos	102,67
105	Pakistan	103,33
106	Ghana	104,00
107	South Africa	108,67
108	India	109,33
109	Nepal	110,67
110	Myanmar	113,67
111	Tajikistan	113,67
112	Angola	114,33
113	Zimbabwe	116,00
114	Cambodia	116,33
115	Ethiopia	116,67
116	Zambia	117,00
117	Madagascar	117,67
118	Nigeria	118,00
119	Kenya	119,00
120	Botswana	119,00
121	Djibouti	120,67
122	Gabon	120,67

123	Haiti	121,33
124	Mauritania	121,33
125	Yemen	122,33
126	Mozambique	122,67
127	Senegal	123,33
128	Uganda	123,67
129	Lesotho	124,00
130	Congo	124,00
131	Swaziland	124,33
132	Tanzania	125,67
133	Liberia	126,00
134	Rwanda	126,33
135	Comoros	127,33
136	Malawi	128,67
137	Niger	129,67
138	Cameroon	130,33
139	Burkina Faso	131,33
140	Congo, Democratic Republic	135,00
141	Benin	135,33
142	Тодо	135,67
143	Mali	136,00
144	Guinea	138,00
145	Sierra Leone	139,00
146	Afghanistan	139,00
147	Chad	140,00
148	Burundi	142,67
149	Central African Republic	147,00



Sources: Holmberg GSI; Maddison (2008)















Sources: Holmberg GSI; World Economic Forum (2011-2012)







Sources: Holmberg GSI; United Nations (2009-2010)



Sources: Holmberg GSI; World Bank (2009)





Sources: Holmberg GSI; World Bank (2009)



Sources: Holmberg GSI; Environmental Performance Index (2008)



Sources: Holmberg GSI; Environmental Performance Index (2008)





Sources: Holmberg GSI; Environmental Performance Index (2009)



Sources: Holmberg GSI; Inter-Parliamentary Union (2007-2010)



R-squared: 0.22

Number of observations: 122

Sources: Holmberg GSI; World Economic Forum (2009-2012)



![](_page_29_Figure_0.jpeg)

![](_page_30_Figure_0.jpeg)

![](_page_31_Figure_0.jpeg)

![](_page_32_Figure_0.jpeg)

![](_page_33_Figure_0.jpeg)

![](_page_34_Figure_0.jpeg)

![](_page_35_Figure_0.jpeg)

Sources: Holmberg GSI; QoG Expert Survey (2011)

![](_page_36_Figure_0.jpeg)

![](_page_37_Figure_0.jpeg)

![](_page_38_Figure_0.jpeg)

Sources: Holmberg GSI; World Bank (2009)

![](_page_39_Figure_0.jpeg)

![](_page_40_Figure_0.jpeg)

![](_page_41_Figure_0.jpeg)

Sources: Holmberg GSI; Economist Intelligence Unit (2007)

![](_page_42_Figure_0.jpeg)

Sources: Holmberg GSI; Freedom House (2009); Polity (2009)

![](_page_43_Figure_0.jpeg)

Sources: Holmberg GSI; Fund for Peace (2008-2009)

![](_page_44_Figure_0.jpeg)

Sources: Holmberg GSI; Fish & Kroenig (2009)

![](_page_45_Figure_0.jpeg)

Sources: Holmberg GSI; Henisz (2007-2009)

![](_page_46_Figure_0.jpeg)

![](_page_47_Figure_0.jpeg)

Sources: Holmberg GSI; Bormann & Golder (2006-2011)

![](_page_48_Figure_0.jpeg)

Sources: Holmberg GSI; Vanhanen (2009)

![](_page_49_Figure_0.jpeg)

Sources: Holmberg GSI; Institute for Health Metrics and Evaluation (2009)

![](_page_50_Figure_0.jpeg)

Sources: Holmberg GSI; Institute for Health Metrics and Evaluation (2009)

![](_page_51_Figure_0.jpeg)

Sources: Holmberg GSI; World Economic Forum (2011-2012)

![](_page_52_Figure_0.jpeg)

![](_page_53_Figure_0.jpeg)

![](_page_54_Figure_0.jpeg)

![](_page_55_Figure_0.jpeg)

![](_page_56_Figure_0.jpeg)

![](_page_57_Figure_0.jpeg)

R-squared: 0.57 Sources: Holmberg GSI; World Bank (2009)

Number of observations: 149

## **Description of variables**<sup>1</sup>

#### The Good Society Index

The Good Society Index builds on three basic premises. First, the index consists of birth and deaths of human beings as well as the quality of life of people. The second premise is that the Good Society Index should adhere to lex parsimoniae, that is to the principle of Ockham's razor, meaning that a model should use a minimum number of explanatory variables. Third, the index measures subjective as well as objective characteristics. Subjective and objective indicators need to be combined, neither is sufficient as of its own. Given these three premises the Good Society Index is operationally constructed using:

- Infant mortality data from the World Bank (World Development Indicators) (2011)
- Life expectancy data from the World Bank (World Development Indicators) (2012)
- Happiness data from the United Nations (World Happiness Report/Gallup) (2013)

The three indicators all carry the same weight. Furthermore, the index is based on ranks, not on rates, which means that the countries' rank orders are utilized to build the composite index. The rank orders of each country have been summed and divided by three to yield an index value that in theory can vary between 1 (top nation on the Good Society Index) and 149 (bottom country). A top index value of 1 and a bottom value of 149 thus tell us that these specific countries are closest and furthest away respectively from the good society among the investigated nations. But the figures do not tell how close or how far away from the maximum good society the countries are. The index is not continuous; it is a rank order scale.

(Holmberg 2007)

#### Private Health Expenditure (% of GDP)

Private health expenditure includes direct household (out-of-pocket) spending, private insurance, charitable donations, and direct service payments by private corporations. (World Development Indicators) (2009)

#### Public Health Expenditure (% of GDP)

Public health expenditure consists of recurrent and capital spending from government (central and local) budgets, external borrowings and grants (including donations from international agencies and nongovernmental organizations), and social (or compulsory) health insurance funds. (World Development Indicators) (2009)

#### Number of Veto Players

Equals 1 if the Legislative Index of Political Competitiveness (dpi\_lipc) or the Executive Index of Political Competitiveness (dpi\_eipc) is less than six. In countries where dpi\_lipc and dpi\_eipc are greater than or equal to six, dpi\_checks is incremented by one if there is a chief executive, by a

<sup>&</sup>lt;sup>1</sup> Some of the variables have been reversed in the scatterplots in order to make the interpretation more intuitive.

further one if the chief executive is competitively elected (dpi\_eipc greater than six), and by a further one if the opposition controls the legislature.

In presidential systems, dpi\_checks is incremented by one for each chamber of the legislature (unless the president's party has a majority in the lower house and a closed-list system is in effect), and by one for each party coded as allied with the president's party and which has an ideological (left -right) orientation closer to that of the main opposition party than to that of the president's party.

In parliamentary systems dpi\_checks is incremented by one for every party in the government coalition as long as the parties are needed to maintain a majority, and by one for every party in the government coalition that has a position on economic issues closer to the largest opposition party than to the party of the executive. (The prime minister's party is not counted as a check if there is a closed rule in place.)

(Database of Political Institutions) (2009-2011)

#### **Government Fractionalization**

Government fractionalization measures the probability that two randomly chosen deputies from among the government parties will be of different parties. (Database of Political Institutions) (2006-2011)

#### Carbon Dioxide (CO2) Emissions per Capita

The ratio has been calculated using the Sectoral Approach CO2 emissions and population data from the IEA.

(Environmental Performance Index) (2009)

#### **Failed States Index**

The Failed States Index includes an examination of the pressures on states, their vulnerability to internal conflict and societal deterioration. The country ratings are based on the total scores of 12 indicators:

#### Social Indicators

(1) Mounting Demographic Pressures.

(2) Massive Movement of Refugees or Internally Displaced Persons creating Complex Humanitarian Emergencies.

(3) Legacy of Vengeance-Seeking Group Grievance or Group Paranoia.

(4) Chronic and Sustained Human Flight.

#### **Economic Indicators**

- (5) Uneven Economic Development along Group Lines.
- (6) Sharp and/or Severe Economic Decline.

#### **Political Indicators**

(7) Criminalization and/or Delegitimization of the State.

(8) Progressive Deterioration of Public Services.

(9) Suspension or Arbitrary Application of the Rule of Law and Widespread Violation of Human Rights.

- (10) Security Apparatus Operates as a "State Within a State".
- (11) Rise of Factionalized Elites.
- (12) Intervention of Other States or External Political Actors.

For each indicator, the ratings are placed on a scale of 0 to 10, with 0 being the lowest intensity (most stable) and 10 being the highest intensity (least stable). The total score is the sum of the 12 indicators and is on a scale of 0-120.

(Fund for Peace) (2008-2009)

#### **Access to Sanitation**

Access to adequate sanitation measures the percentage of a country's population that has access to an improved source of sanitation. "Improved" sanitation technologies are: connection to a public sewer, connection to septic system, pour flush latrine, simple pit latrine, ventilated improved pit latrine. The excreta disposal system is considered adequate if it is private or shared (but not public) and if hygienically separates human excreta from human contact. "Not improved" are: service or bucket latrines (where excreta are manually removed), public latrines, latrines with an open pit. The total population of a country may comprise either all usual residents of the country (de jure population) or all persons present in the country (de facto population) at the time of the census. For purposes of international comparisons, the de facto definition is recommended. (Environmental Performance Index) (2008)

#### **Environmental Performance Index**

The Environmental Performance Index is a composite index that measures how well countries succeed in reducing environmental stresses on human health and promoting ecosystem vitality and sound natural resource management. It is built on the 22 variables below (see QoG Standard codebook). The index ranges theoretically between 0 and 100, where higher values indicate a better environmental performance.

(Environmental Performance Index) (2009)

#### Index of Democracy

The index of democracy is based on the ratings for 60 indicators grouped into the five following categories. Each category has a rating on a 0 to 10 scale, and the overall index of democracy is the simple average of the five variables below.

- (1) Civil Liberties
- (2) Democratic Political Culture
- (3) Electoral Process and Pluralism
- (4) Functioning of Government
- (5) Political Participation

(Economist Intelligence Unit) (2007)

#### Democracy (Freedom House/Imputed Polity)

Scale ranges from 0-10 where 0 is least democratic and 10 most democratic. Average of Freedom House (fh\_pr and fh\_cl) is transformed to a scale 0-10 and Polity (p\_polity2) is transformed to a scale 0-10. These variables are averaged into fh\_polity2.

The imputed version has imputed values for countries where data on Polity is missing by regressing Polity on the average Freedom House measure. Hadenius & Teorell (2005) show that this average index performs better both in terms of validity and reliability than its constituent parts. (Freedom House/Polity) (2009)

#### **Parliamentary Powers Index**

The Parliamentary Powers Index assesses the strength of the national legislature. The index, based on 32 underlying dummy variables, gauges the legislature's sway of the executive, its institutional autonomy, its authority in specific areas, and its institutional capacity.

The data was generated by means of international an survey of experts, a study of secondary sources, and analyses of constitutions and other relevant documents

The variable ranges from 0 (least powerful) to 1 (most powerful). The score is calculated by summing up the number of powers that the national legislature possesses and dividing it by 32. For example, a country with a national legislature that possesses 16 of the 32 parliamentary powers has a PPI of .50. (The Parliamentary Powers Index) (2009)

#### Access to Drinking Water

The percentage of a country's population that has access to an improved source of drinking water. (Environmental Performance Index) (2008)

#### Economic Freedom of the World Index (Current)

The index is founded upon objective components that reflect the presence (or absence) of economic freedom. The index comprises 21 components designed to identify the consistency of institutional arrangements and policies with economic freedom in five major areas:

- (1) Size of government.
- (2) Legal structure and security of property rights.
- (3) Access to sound money.
- (4) Freedom to trade internationally.
- (5) Regulation of credit, labor and business.

The index ranges from 0-10 where 0 corresponds to 'less economic freedom' and 10 to 'more economic freedom'. This is the version of the index published at the current year of measurement, without taking methodological changes over time into account.

(Fraser Institute) (2009-2010)

#### Political Constraints Index V

This index measures the feasibility of policy change, i.e. the extent to which a change in the preferences of any one political actor may lead to a change in government policy. The index is composed from the following information:

- The number of independent branches of government with veto power over policy change, counting the executive and the presence of an effective lower and upper house in the legislature (more branches leading to more constraint).
- The extent of party alignment across branches of government, measured as the extent to which the same party or coalition of parties control each branch (decreasing the level of constraint).
- The extent of preference heterogeneity within each legislative branch, measured as legislative fractionalization in the relevant house (increasing constraint for aligned executives, decreasing it for opposed executives).
- The judiciary.
- Sub-federal entities.

The index scores are derived from a simple spatial model and theoretically ranges from 0 to 1, with higher scores indicating more political constraint and thus less feasibility of policy change. (The Political Constraints Data) (2007-2009)

#### **Economic Freedom Index**

The Economic Freedom index uses 10 specific freedoms, some as composites of even further detailed and quantifiable components:

(1) Business freedom.

- (2) Trade freedom.
- (3) Fiscal freedom.
- (4) Freedom from government.
- (5) Monetary freedom.
- (6) Investment freedom.
- (7) Financial freedom.
- (8) Property rights.
- (9) Freedom from corruption.
- (10) Labor freedom.

Each of these freedoms is weighted equally and turned into an index ranging from 0 to 100, where 100 represents the maximum economic freedom. Although changes in methodology have been undertaken throughout the measurement period, continuous backtracking has been used to maximize comparability over time.

(Heritage Foundation) (2009)

#### Average Years of Education (Female)

Average number of years of education of women aged 25 and older. (Institute for Health Metrics and Evaluation) (2009)

#### Average Years of Education (Male)

Average number of years of education of men aged 25 and older. (Institute for Health Metrics and Evaluation) (2009)

#### Women in national parliament (lower house)

Percentage women in single house or lower house. (Inter-Parliamentary Union) (2007-2010)

#### **Effective Number of Electoral Parties**

The effective number of electoral parties. (Democratic Electoral Systems Around the World) (2006-2011)

#### **Electoral System Type**

The basic type of electoral system used in the elections. (Democratic Electoral Systems Around the World) (2006-2011)

#### Latitude

The absolute value of the latitude of the capital city, divided by 90 (to take values between 0 and 1). (The Quality of Government) (2009)

#### Impartial Public Administration (IPA)

The index measures to what extent government institutions exercise their power impartially. The impartiality norm is defined as: "When implementing laws and policies, government officials shall not take into consideration anything about the citizen/case that is not beforehand stipulated in the policy or the law." (Rothstein and Teorell 2008, p. 170) The index is built on five items from the survey:

- By a common definition, impartiality implies that when implementing policies, public sector employees should not take anything about the citizen/case into consideration that is not stipulated in the policy. Generally speaking, how often would you say that public sector employees today, in your chosen country, act impartially when deciding how to implement a policy in an individual case? (Response categories from 1-7, "hardly ever" to "almost always")
- Hypothetically, let's say that a typical public employee was given the task to distribute an amount equivalent to 1000 USD per capita to the needy poor in your country. According to your judgment, please state the percentage that would reach: (Six response categories for which the respondents could fill in a number from 0 to 100 percent. The percentage reaching "the needy poor" was here use d as the indicator of how impartial the policy would be implemented).

Thinking about the country you have chosen, how often would you say the following occurs today?

- Firms that provide the most favorable kickbacks to senior officials are awarded public procurement contracts in favor of firms making the lowest bid?
- When deciding how to implement policies in individual cases, public sector employees treat some groups in society unfairly?

• When granting licenses to start up private firms, public sector employees favor applicants with which they have strong personal contacts? (Response categories from 1-7, from "hardly ever" to "almost always".)

The index is constructed by adding each measure weighted by the factor loading obtained from a principle components factor analysis. Missing values on one or more of the questions have been imputed on the individual expert level. After that, aggregation to the country level has been made (mean value of all experts per country).

(The QoG Expert Survey) (2011)

#### GDP per Capita

GDP per Capita in 1990 International Geary-Khamis dollars. (The Geary-Khamis dollar is a hypothetical unit of currency that has the same purchasing power that the U.S. dollar had in the United States at a given point in time).

(New Maddison Project Database) (2008)

#### Professional Public Administration (PPA)

The index measures to what extent the public administration is professional rather than politicized. Higher values indicate a more professionalized public administration. It is based on four questions from the survey:

Thinking about the country you have chosen, how often would you say the following occurs today:

- When recruiting public sector employees, the skills and merits of the applicants decide who gets the job?
- When recruiting public sector employees, the political connections of the applicants decide who gets the job?
- The top political leadership hires and fires senior public officials?
- Senior public officials are recruited from within the ranks of the public sector?

The scale for each question is 1-7 (from "hardly ever" to "almost always").

The index is constructed by first taking the mean for each responding expert of the four questions above. The value for each country is then calculated as the mean of all the experts' means. (If one or more answers are missing, these questions are ignored when calculating the mean value for each expert. The scales of the second and third questions are reversed so that higher values indicate more professionalism).

(The QoG Expert Survey) (2011)

#### Gini Household Disposable Income

Estimate of Gini index of inequality in equivalized (square root scale) household disposable income, using Luxembourg Income Study data as the standard.

(The Standardized World Income Inequality Database) (2006-2009)

#### **Corruption Perceptions Index**

The CPI focuses on corruption in the public sector and defines corruption as the abuse of public office for private gain. The surveys used in compiling the CPI tend to ask questions in line with the misuse of public power for private benefit, with a focus, for example, on bribe-taking by public officials in public procurement. The sources do not distinguish between administrative and political corruption. The CPI Score relates to perceptions of the degree of corruption as seen by business people, risk analysts and the general public and ranges between 10 (highly clean) and 0 (highly corrupt). (Transparency International) (2007-2011)

#### **Human Development Index**

The Human Development Index (HDI) is a composite index that measures the average achievements in a country in three basic dimensions of human development: a long and healthy life, as measured by life expectancy at birth; knowledge, as measured by the adult literacy rate and the combined gross enrolment ratio for primary, secondary and tertiary schools; and a decent standard of living, as measured by GDP per capita in purchasing power parity (PPP) US dollars.

(UNDP Human Development Report) (2009-2010)

#### Competition

The competition variable portrays the electoral success of smaller parties, that is, the percentage of votes gained by the smaller parties in parliamentary and/or presidential elections. The variable is calculated by subtracting from 100 the percentage of votes won by the largest party (the party which wins most votes) in parliamentary elections or by the party of the successful candidate in presidential elections. The variable thus theoretically ranges from 0 (only one party received 100 % of votes) to 100 (each voter cast a vote for a distinct party).

(Index of Democratization) (2009)

#### **Government Effectiveness**

"Government Effectiveness" combines into a single grouping responses on the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government's commitment to policies. The main focus of this index is on "inputs" required for the government to be able to produce and implement good policies and deliver public goods.

(The Worldwide Governance Indicators, World Bank) (2009)

#### **Rule of Law**

"Rule of Law" includes several indicators which measure the extent to which agents have confidence in and abide by the rules of society. These include perceptions of the incidence of crime, the effectiveness and predictability of the judiciary, and the enforceability of contracts. Together, these indicators measure the success of a society in developing an environment in which fair and predictable rules form the basis for economic and social interactions and the extent to which property rights are protected.

(The Worldwide Governance Indicators) (2009)

#### Agriculture's share of Economy (% of GDP)

Agriculture corresponds to ISIC divisions 1-5 and includes forestry, hunting, and fishing, as well as cultivation of crops and livestock production. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The origin of value added is determined by the International Standard Industrial Classification (ISIC), revision 3. (World Development Indicators) (2006-2009)

#### Industry's share of Economy (% of GDP)

Industry corresponds to ISIC divisions 10-45 and includes manufacturing (ISIC divisions 15-37). It comprises value added in mining, manufacturing (also reported as a separate subgroup), construction, electricity, water, and gas. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The origin of value added is determined by the International Standard Industrial Classification (ISIC), revision 3. (World Development Indicators) (2006-2009)

#### Services' share of Economy (% of GDP)

Services correspond to ISIC divisions 50-99 and they include value added in wholesale and retail trade (including hotels and restaurants), transport, and government, financial, professional, and personal services such as education, health care, and real estate services. Also included are imputed bank service charges, import duties, and any statistical discrepancies noted by national compilers as well as discrepancies arising from rescaling. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The industrial origin of value added is determined by the International Standard Industrial Classification (ISIC), revision 3.

(World Development Indicators) (2006-2009)

#### Internet users (per 100 people)

Internet users are people with access to the worldwide network. (World Development Indicators) (2008-2010)

#### Military expenditure (% of GDP)

Military expenditures data from SIPRI are derived from the NATO definition, which includes all current and capital expenditures on the armed forces, including peacekeeping forces; defense ministries and other government agencies engaged in defense projects; paramilitary forces, if these are judged to be trained and equipped for military operations; and military space activities. Such expenditures include military and civil personnel, including retirement pensions of military personnel and social services for personnel; operation and maintenance; procurement; military research and development; and military aid (in the military expenditures of the donor country). Excluded are civil defense and current expenditures for previous military activities, such as for veterans' benefits, demobilization, conversion, and destruction of weapons. This definition cannot be applied for all countries, however, since that would require much more detailed information than is available about what is included in military budgets and off-budget military expenditure items. (For example, military

budgets might or might not cover civil defense, reserves and auxiliary forces, police and paramilitary forces, dual-purpose forces such as military and civilian police, military grants in kind, pensions for military personnel, and social security contributions paid by one part of government to another.) (World Development Indicators) (2006-2010)

#### Total Health Expenditure (% of GDP)

Total health expenditure is the sum of public and private health expenditure. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation. (World Development Indicators) (2009)

#### Tax revenue (% of GDP)

Tax revenue refers to compulsory transfers to the central government for public purposes. Certain compulsory transfers such as fines, penalties, and most social security contributions are excluded. Refunds and corrections of erroneously collected tax revenue are treated as negative revenue. (World Development Indicators) (2006-2009)

#### Urban population (% of total)

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.

(World Development Indicators) (2009)

#### **Brain Drain**

Does your country retain and attract talented people? [1 = no, the best and brightest normally leave to pursue opportunities in other countries; 7 = yes, there are many opportunities for talented people within the country].

(Global Competitiveness Report) (2011-2012)

#### **Country Credit Rating**

Expert assessment of the probability of sovereign debt default on a 0–100 (lowest probability) scale. (Global Competitiveness Report) (2012)

#### **Gender Gap Index**

All scores are reported on a scale of 0 to 1, with 1 representing maximum gender equality. The study measures the extent to which women have achieved full equality with men in five critical areas:

- Economic participation
- Economic opportunity
- Political empowerment
- Educational Attainment
- Health and well-being

(Global Competitiveness Report) (2009-2012)

#### **Public Trust in Politicians**

How would you rate the level of public trust in the ethical standards of politicians in your country? [1 = very low; 7 = very high].

(Global Competitiveness Report) (2011-2012)

#### **Religiosity Scale**

Religiosity Scale is a 0-100 scale composed of six items:

- "Independently of whether you go to church or not, would you say you are...a religious person, not a religious person, or a convinced atheist?" (% religious).
- "Apart from weddings, funerals and christenings, about how often do you attend religious services these days?" (% once a week or more).
- "How important is God in your life?" (% "very" scaled 6-10)
- "Do you believe in God?" (% Yes).
- "Do you believe in life after death?" (% Yes).
- "Do you find that you get comfort and strength from religion?"

(World Values Survey) (2004-2008)

#### **Christianity: Adherents (%)**

Raw numbers (no weights used). (World Religion Dataset: National Religion Dataset)

#### Islam: Adherents (%)

Raw numbers (no weights used). (World Religion Dataset: National Religion Dataset)

#### **Quality of the Educational System**

How well does the educational system in your country meet the needs of a competitive economy? [1 = not well at all; 7 = very well]. (Global Competitiveness Report) (2011-2012)

#### **Quality of Overall Infrastructure**

How would you assess general infrastructure (e.g., transport, telephony, and energy) in your country? [1 = extremely underdeveloped; 7 = extensive and efficient by international standards]. (Global Competitiveness Report) (2011-2012)

#### Interpersonal trust

Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?

(0) Need to be very careful

(1) Most people can be trusted

(World Values Survey) (2004-2008)

### References

Beck, T., Clarke, G., Groff, A., Keefer, P. and Walsh, P. 2000. "New Tools and New Tests in Comparative Political Economy: The Database of Political Institutions", World Bank Policy Research Working Paper 2283.

Bolt, J. and J. L. van Zanden (2013). "The First Update of the Maddison Project; Re-Estimating Growth Before 1820". Maddison Project Working Paper 4.

Bormann, N-C. & Matt Golder. 2013. "Democratic electoral Systems Around the World, 1946-2011." Electoral Studies.

Esty, D. C. et al. 2008. 2008 Environmental Performance Index. Yale Center for Environmental Law & Policy, Center for International Earth Science Information Network (Columbia University), World Economic Forum, Joint Research Centre of the European Commission. http://epi.yale.edu/Home

Fish, M.S. and Kroenig, M. 2009. The Handbook of National Legislatures: A Global Survey. New York: Cambridge University Press

Gakidou, E., Cowling, K., Lozano, R. and Murray, C.J.L. 2010. "Increased educational attainment and its effect on child mortality in 175 countries between 1970 and 2009: a systematic analysis". Lancet, 376: 959-974.

Gwartney, J. and Lawson, R. Hall, J., 2012. Economic Freedom Dataset, published in Economic Freedom of the World: 2012 Annual Report: The Fraser Institute.

Helliwell, John. Layard, Richard and Sachs, Jeffrey. World Happiness Report 2013.

Henisz, W. J. 2000. "The Institutional Environment for Economic Growth." Economics and Politics, 12(1): 1-31.

Heritage Foundation 2013. 2013 Index of Economic Freedom, published online. http://www.heritage.org/ January 22, 2013.

Holmberg, Sören. QoG Working Paper Series 2007:6. "The Good Society Index"

IPU Inter-Parliamentary Union. 2013. Women in Parliament, published online. http://www.ipu.org/wmn-e/classif.htm January 31, 2013.

Kaufmann, D., Kraay, A. and Mastruzzi, M. 2009. "Governance Matters VIII: Aggregate and Individual Governance Indicators for 1996–2008". World Bank Policy Research Paper No. 4978. http://ssrn.com/abstract=1424591

Kekic, L. 2007. "The Economist Intelligence Unit's index of democracy." The Economist. The World in 2007. London.

La Porta, R., López-de-Silanes, F., Shleifer, A. and Vishny, R. 1999. The Quality of Government. Journal of Law, Economics and Organization, 15(1): 222-279.

Marshall, M. G. and Jaggers, K. Gurr, T. R. 2011. 'Polity IV Project: Political Regime Characteristics and Transitions, 1800-2011. http://www.systemicpeace.org/polity/polity4.htm, January 29, 2013

Schwab, Klaus, "The Global Competetiveness Report 2012-2013", World Economic Forum.

Solt, F. 2008-09, "The Standardized World Income Inequality Database", http://hdl.handle.net/1902.1/11992 V4 [Version]

Teorell, Jan. Carl Dahlström & Stefan Dahlberg. 2011. The QoG Expert Survey Dataset. University of Gothenburg: The Quality of Government Institute. http://www.qog.pol.gu.se

Teorell, Jan, Nicholas Charron, Stefan Dahlberg, Sören Holmberg, Bo Rothstein, Petrus Sundin & Richard Svensson. 2013. The Quality of Government Dataset, version 20Dec13. University of Gothenburg: The Quality of Government Institute, http://www.qog.pol.gu.se

Transparency International. 2012. Corruption perception Index 2012, published online. http://www.transparency.org/research/cpi/overview . January 29, 2013.

UNDP 2013. Human Development Report 2013. "The Rise of the South: Human Progress in a Diverse World". Published online.

UNODC. United Nations Office on Drugs and Crime. http://www.unodc.org/unodc/

Vanhanen, T. 2011. Measures of Democracy 1810-2010 [computer file]. FSD1289, version 5.0 (2011-07-07). Tampere: Finnish Social Science Data Archive [distributor], 2011

World Bank 2013. World Development Indicators. Washington DC: The World Bank Group, Published Online, January 24, 2013.

World Values Survey Association 2009.

World Values Survey 1981-2008 Official Aggregate v.20090901. Aggregate File Producer: ASEP/JDS, Madrid. http://www.worldvaluessurvey.org/