growth, integrated.



the global

Sustainable Competitiveness Index 2014

About this Report

The Sustainable Competitiveness Report, 3rd edition

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About SolAbility

SolAbility is an independent sustainability think-tank and advisory, with presence in Korea and Switzerland.

SolAbility is the maker of 3 DJSI Super-Sector Leaders - designed and implemented the sustainable management for GS Engineering & Construction (Supersector leader 2012), Korea Telecom (Supersector leader 2011-2013), and Lotte Shopping (Supersector leader 2011-2014).



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_social capital
_intellectual capital
_resource management
_governance
_governance

Systainable Competitiveness Index 2014

The 3rd Global Sustainable Competitiveness Index

Foreword

The data series available for countries world-wide is dream of every analyst – corporate research analysts, be they working on finances or ESG. In the corporate World, comparable data is hardly ever available. On a country-level, thanks to International Institutions such as the various UN agencies and the World Bank – such data is available. Comparable. Over time. That means – there is no reason to keep considering the success and wealth of nations solemnly on GDP.

The Gross Domestic Product (GDP) only measures a financial output in a certain moment in time. Most economic activities that lead to the GDO have certain adverse side-effects. Pollution, depletion, inequality, health impacts on the natural environment, the resources, and on the socio-cultural fabric of a country can diminish the very basis of current economic output, measured in GDP.

In addition many vital resources – water, energy, but also minerals and metals – are not renewable and becoming increasingly scarce. Yet none of these "non-financial" aspects are factored into the commonly expression of wealth of Nations, the GDP. In other words – the GDP is a very limited expression of a national balance sheet. GDP growth rates and changes in growth rates are often used as an indicator for an economy's well-being and development. However, due to the lack of integrating all aspects of development – natural resources, efficiency, innovation capabilities and social cohesion - current GDP levels have limited informative value regarding the future potential of achieving and sustaining inclusive development and creation of wealth.

The Sustainable Competitiveness Index is based on a competitiveness model that incorporates all relevant pillars of sustained growth and wealth creation of a nation – natural capital availability, government-led development direction, social cohesion, innovation and business capabilities. The Sustainable Competitiveness Index also integrates data trends over time to allow for a better expression of the future development potential. The results aim at serving as an alternative to the GDP, and to be used to analyse future development prospects and risks of nations.

We hope you enjoy reading and find this information useful.

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Summary Sustainable Natural Social Intellectual Governance Management Spotlight Data

Executive Summary

GDP - the measurement most often used to compare the "competitiveness" of nation-economies, is an insufficient measurement for risk and investment analysis. It is also insufficient to anticipate the future development of a given economy – GDP does not take into account developments, and it does not take into account the very financial implications of externalities (non-financial capital).

Methodology: The Sustainable Competitiveness Pyramid

The Sustainable Competitiveness model has been developed based on an integrated view of what characterises the current and the future state (i.e.



competitiveness) of a nation-economy. Sustainable competitiveness is the ability to generate and sustain sustainable wealth without diminishing future capability of sustaining current wealth levels. That means that current wealth levels are not in danger of being reduced or diminished through over-exploitation of resources (natural and human), the lack of innovative edge required to compete in the globalised markets, or the discrimination, marginalisation or exploitation of segments of a society. The main pillars of sustainable competitiveness are:

- Natural Capital: the given natural environment within the frontiers of a country, including availability of resources, and the level of the depletion of those resources.
- Social Capital: health, equality, security, freedom and life satisfaction within a country
- Sustainable Innovation: the capability of a country to generate wealth and jobs through innovation and value-added industries in the globalised markets
- Resource Management: the efficiency of using available resources (human, technology, natural and financial resources), both domestic and imported) as a measurement of operational competitiveness in a resource-constraint World.
- Governance Capability: the ability of governing bodies and authorities to provide a framework for sustained and sustainable wealth generation

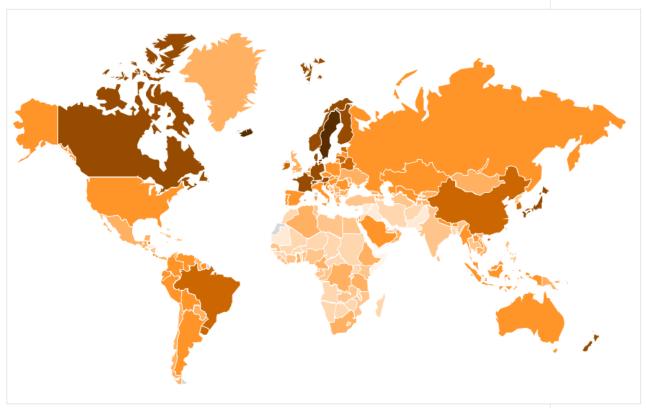
The Sustainable Competitiveness Index is based on 106 quantitative (statistical) indicators, grouped in 5 pillars. The quantitative indicators have been computed to comparable scores. To reflect recent developments, a trend analysis of performance data over the latest 5 years has been computed to a second score, allowing for a result that reflects both current state and future outlook of the sustainable competitiveness of a country.

Summary Sustainable Natural Management Intellectual Governance Social Spotlight Data

Sustainable World Map

Contrary to a GDP ranking, the Sustainable Competitiveness score is based on scoring current performance data as well as performance trends (increase/decrease) over the past 5 years. The combination of absolute comparison and trends reflects a momentary picture and indicates the future potential of a country. The Sustainable Competiveness Ranking 2014 reveals some surprising, and other not-so-surprising results:

- The Sustainable Competitiveness Index is topped by Scandinavian nations four the 3rd consecutive year. Only Japan (2nd breaks into the Nordic phalanx. The leaders are followed by other North-Western European Nations. The only non-European country in the top 20 are Canada (9), Japan (12), and New Zealand (14).
- The World's largest economy, the US, is ranked 27th. Of the booming emerging economies, Brazil is ranked 28th, South Korea 30th, China 38th, Russia 48th, and India 126th.
- The Natural Capital sub-rankings are topped by countries with a rich biodiversity, favourable climate and sufficient water resources. Distinctions are also visible between the more industrialised countries, indicating that some countries will face lower obstacles with the coming raw material and energy scarcity
- Asian nations (Singapore, South Korea, Japan, and China) lead the Sustainable Innovation Competitiveness ranking. However, achieving sustained prosperity in these countries might be compromised by Natural Capital constraints and current high resource intensity/low resource efficiency
- The Social Cohesion ranking is headed by Northern European countries, indicating that Social Cohesion is the result of economic growth combined with some sort of social consensus

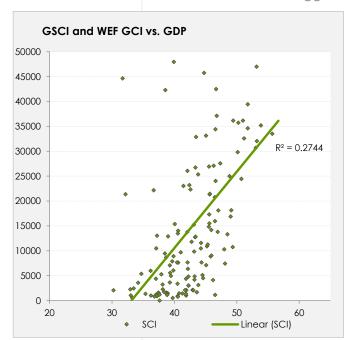


The Sustainable Competitiveness World Map. Dark areas indicate high competitiveness, light areas low competitiveness

Summary Sustainable Natural Social Intellectual Governance Management Spotlight Date

Higher sustainability equals higher wealth

The leading nations in the Sustainable Competitiveness ranking are mostly highincome countries, suggesting a certain correlation between Sustainable



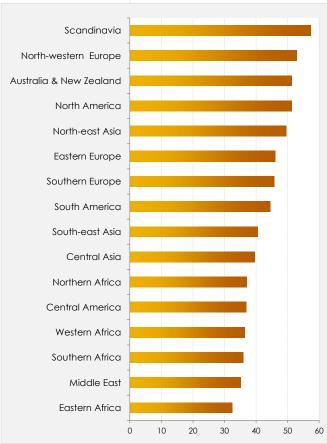
GDP/capita and sustainable competitiveness

Competitiveness score and GDP per capita or income levels (high income = high sustainability). The same is true when visualizing average deviations of GDP per capita and the sustainable competitiveness score.

While a certain similarity between GDP rankings and sustainability levels seems to be visible, the correlation is superficial and refuted by too many exceptions to the rule. This indicates that the correlation is not from GDP to sustainable competitiveness, but rather from sustainable competitiveness to income levels. In other words: higher sustainable competitiveness can be associated with higher income levels.

However, the correlation or the influence of the sustainable competitiveness on GDP or income level is not immediate; it is time-deferred. Like every endeavour or project, an upfront

investment is required to achieve desired results at a later stage. The seeds have to be planted, the plants need to be cared for before the harvest can be collected. In addition, the presence of large natural resources allows for exploitation of the natural capital (e.g. the oil-rich countries of the Middle East). However, such wealth is highly unsustainable and the wealth generated will



Regional spread of sustainable competitiveness scores

diminish with depletion of resources in the absence of an adequate alternative sustainable economy and the underlying fundament requirements to achieve sustainable wealth that does not depend on the exploitation of non-renewable resources.

Regional spread

Scandinavia as a region achieves the highest Sustainable Competitiveness score, followed by other regions in the Northern hemisphere. Central Asia is the only region that doesn't fit into the North-South divide. From European perspective, it is interesting to note that Eastern Europe achieves a higher score than Sothern Europe (which has nominally higher income levels). All African Regions are in the bottom half. The high-income countries of the Middle East have sustained their economic success with the exploitation of their mineral resources. The low Sustainable Competitiveness of the region raises concerns on whether those countries will be able to maintain or sustain their development level once there fossil fuel wealth diminishes.

Summary Sustainable Natural Competitive Capital Management Intellectual Capital Capita

Sustainable Competiveness – The 2014 Global Index

Due to changes in methodology, the results of the 2014 Index cannot be directly compared to 2013 results. 2013 ranking comparison therefor heave been omitted for the purpose of this report. Interested stakeholder can download the 2013 and 2013 Indexes here.

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
Iceland	1	56.2	Russia	45	45.8	Ethiopia	89	41.8	India	133	38.0
Sweden	2	54.1	Hungary	46	45.7	Tanzania	90	41.7	Jordan	134	37.9
Finland	3	53.6	Venezuela	47	45.7	Malta	91	41.7	Togo	135	37.7
Norway	4	53.4	Suriname	48	45.6	Cameroon	92	41.5	Angola	136	37.6
Japan	5	53.3	Belgium	49	45.4	Democratic Republic o	93	41.4	Zimbabwe	137	37.5
Switzerland	6	52.0	Romania	50	45.4	Timor-Leste	94	41.1	Uganda	138	37.5
Germany	7	52.0	Dominica	51	45.2	South Africa	95	40.9	Bangladesh	139	37.4
Denmark	8	51.6	Belize	52	45.1	Zambia	96	40.8	Botswana	140	37.3
Luxembourg	9	51.6	Brunei	53	44.8	Gabon	97	40.7	Lesotho	141	37.3
Austria	10	51.3	Uzbekistan	54	44.7	Nicaragua	98	40.5	Trinidad and Tobago	142	37.2
New Zealand	11	51.2	Boliv ia	55	44.7	Turkey	99	40.5	Mali	143	37.1
Canada	12	50.4	Ecuador	56	44.5	Bosnia and Herzegov in	100	40.5	Madagascar	144	37.0
France	13	50.3	Armenia	57	44.4	Thailand	101	40.5	Iran	145	36.9
Ireland	14	49.9	Montenegro	58	44.4	Libya	102	40.5	Morocco	146	36.9
Estonia	15	49.4	Oman	59	44.2	Kosovo	103	40.4	Burkina Faso	147	36.8
Costa Rica	16	49.4	Kazakhstan	60	44.2	Sierra Leone	104	40.3	Malawi	148	36.7
Slov enia	17	49.2	Laos	61	44.1	Mozambique	105	40.3	West Bank and Gaza	149	36.6
Lithuania	18	49.1	Guyana	62	44.0	Tunisia	106	40.3	Fiji	150	36.4
Uruguay	19	48.9	United Kingdom	63	43.8	Kuwait	107	40.0	Namibia	151	36.3
China	20	48.3	Israel	64	43.7	Maldiv es	108	39.9	Guinea	152	36.1
Brazil	21	48.2	Paraguay	65	43.6	Republic of Congo	109	39.9	Guinea-Bissau	153	35.5
Belarus	22	47.7	Mauritius	66	43.5	El Salv ador	110	39.9	Niger	154	35.5
South Korea	23	47.6	Serbia	67	43.4	Cuba	111	39.8	Central African Republ	155	35.4
Singapore	24	47.4	Mongolia	68	43.4	Turkmenistan	112	39.7	Afghanistan	156	35.4
Poland	25	47.2	Chile	69	43.4	Azerbaijan	113	39.7	Chad	157	35.2
Netherlands	26	47.1	Mexico	70	43.4	Albania	114	39.6	Sudan	158	35.1
Czech Republic	27	47.0	Ghana	71	43.4	Jamaica	115	39.6	Comoros	159	34.8
Australia	28	47.0	Bulgaria	72	43.0	Liberia	116	39.4	Swaziland	160	34.5
Latvia	29	46.9	Greenland	73	43.0	Philippines	117	39.4	Syria	161	34.4
Slov akia	30	46.8	Tajikistan	74	42.9	North Korea	118	39.3	Honduras	162	34.1
USA	31	46.8	Qatar	75	42.8	Bahamas	119	39.2	Gambia	163	33.9
Croatia	32	46.7	Greece	76	42.8	Sri Lanka	120	39.2	Pakistan	164	33.3
Nepal	33	46.4	Kyrgistan	77	42.7	Equatorial Guinea	121	39.2	Mauritania	165	33.0
Italy	34	46.4	Seychelles	78	42.7	Egypt	122	39.1	Burundi	166	33.0
Indonesia	35	46.1	Vietnam	79	42.3	United Arab Emirates	123	39.1	Haiti	167	32.9
Bhutan	36	46.0	Panama	80	42.3	Cote d'Iv oire	124	38.9	Bahrain	168	32.4
Peru	37	46.0	Papua New Guinea	81	42.3	Lebanon	125	38.9	Iraq	169	32.3
Burma	38	45.9	Cyprus	82	42.2	Benin	126	38.8	Eritrea	170	32.3
Argentina	39	45.9	Ukraine	83	42.2	Rwanda	127	38.7	Micronesia	171	32.1
Colombia	40	45.9	Moldova	84	42.1	Macedonia	128	38.7	South Sudan	172	32.1
Spain	41	45.9	Algeria	85	42.1	Kenya	129	38.6	Djibouti	173	32.1
Malaysia	42	45.9	Georgia	86	41.9	Dominican Republic	130	38.4	Hong Kong	174	32.0
Saudi Arabia	43	45.9	Guatemala	87	41.9	Senegal	131	38.4	Somalia	175	30.3
Portugal	44	45.9	Cambodia	88	41.8	Nigeria	132	38.0	Yemen	176	30.0

2 Sustainable Competitiveness

Competitiveness Model

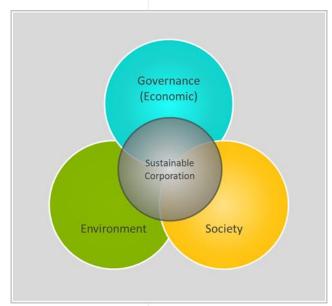
The three-dimensional sustainability model of reconciling the economy, the environment and the society is often used and applied in the corporate world to

evaluate and manage sustainability issues and performance.

However, corporations are entities that operate in very different boundaries and with different goals than states and nation-economies. The elements of the model therefore have to be adapted to the characteristics of nations and their fundament of sustained prosperity.

While corporate or economic entities (depending on the nature of their business) are working with natural capital, they do not depend on the location of the capital (natural, human, financial) they utilize, and therefore can move their operations to where the external conditions are most favourable, both in terms of physical location (offices/factories) and markets, as

well as in terms of business fields. Transport and international trade have made countries and people less dependent on their immediate environment through international trade of resources, including water. However, countries and population cannot simply move should fundamental resources (water, agricultural output) become scarce or the country inhabitable due to climate change. At the end of the day people rely on, and life off, the natural capital of their environment for better or worse.



Model of sustainable development often applied in ESG research

The Sustainable Competitiveness Pyramid

Sustainable competitiveness - they ability to generate and sustain inclusive

Governance
Resource Management
Intellectual Capital
Social Capital
Natural Capital
Sustainable Competitiveness

wealth and dignifying standard of life for all citizens in a globalised world of competing economies, consists of 5 key elements that interact and influence each other: natural capital (the given natural environment and climate, minus human induced degradation and pollution), social capital, intellectual capital (the ability to compete in a globalised market through sustained innovation), resource management (the ability to extract the highest possible value from existing resources (natural, human, financial), and governance (the framework given, normally

The Sustainable Competitiveness Pyramid

by government policies & investments, in which a national economy operates).

Summary Sustainable Social Natural Intellectual Resource Governance Spotlight Date Capital Cap

Methodology changes

The competitiveness of a nation is influenced by a wide range of factors, i.e. is a fairly complex matter. We are striving to develop a model that can reflect all aspects that define the level of competitiveness. The methodology for the Sustainable Competitiveness is therefore constantly reviewed and has evolved over time. For the 2014 Index, the methodology has been overhauled significantly, with additional indicators added (71 in 2013, 104 in 2014) and a redesign of the Sustainable Competitiveness model based on past experiences, new research, data availability, and back-track analysis.

Due to the changes in the methodology, rankings of the 2103 and 2014 are not fully compatible. While vast majority of countries remain in the same bracket of ranking despite the changes methodology, direct comparison of rankings have a limited informative value. From an index point of view, it might be preferable to base rankings on the same methodology and data. However, we believe that delivering the most accurate result possible is more important than direct of year-on-year rankings comparison. The main changes that have been implemented as a result of the methodology review include changes to the model of competitiveness on which the calculation is based, and further adaptation to availability of congruent data series.

Changes to the sustainable competitiveness model:

The sustainable competitiveness model has been adapted based on review of the elements that characterise and influence sustainable competitiveness of nation-economy, and how those elements influence and impact each other. While the model used for the 2012/2013 Index consisted of 4 key elements – Natural capital, resource intensity, sustainable innovation & industrial development, and social cohesion, the 2014 Sustainable Competitiveness model is based on a pyramid with 5 levels. The basic conditions form the basis of the pyramid, on which the next level is built. Vice-versa, the higher levels of the pyramid are influencing the performance of the levels below.

- The base level of the Pyramid is the Natural Capital (the given physical environment and resources) – the resources that feed the population, provide energy, and materials
- The second level is the Social Capital of a country, the cohesion between generations, genders, income groups and other society groups. Social cohesion is required for the prosperous development of human capital, i.e. Social Capital is the provision of a framework that facilitates the third level of the pyramid
- The third level is the Intellectual Capital, the fundament for the ability to compete and generate wealth in a globalised competitive market through design and manufacturing of value-adding products and service. It is the basis for management capabilities
- The fourth level is Resource Management the ability to use available resources at the highest possible efficiency natural resources, human resources, intellectual resources, financial resources.
- The fifth and highest level is Governance the direction and framework provided by government interventions, expenditure, and investments. Government policies (or the absence of such policies) have strong influence and or impact on all lower levels of the Sustainable Competitiveness Pyramid.

Additional Indicators

Big data also applies to statistical data. A sea of information is hidden in data related to a wide range of issues, and data series are becoming increasingly complete on a global level. The higher availability of comparable data across all or most nations of this World allows to integrate more meaningful indicators into the Sustainable Competitiveness Index. Addition, the change of the

Country	2014	2013
Iceland	1	13
Sweden	2	2
Finland	3	3
Norway	4	4
Japan	5	12
Switzerland	6	5
Germany	7	6
Denmark	8	1
Luxembourg	9	10
Austria	10	9
New Zealand	11	14
Canada	12	7
France	13	15
Ireland	14	8
Estonia	15	18
Costa Rica	16	41
Slovenia	17	16
Lithuania	18	23
Uruguay	19	44
China	20	38

The Top 20 nations of the 2104 Sustainable Competitiveness Index and 2013 rankings

underlying competiveness model to a pyramid-shaped models with several levels requires more indicators to receive a balanced perspective on all 5 levels of the Sustainable Competitiveness Pyramid (Natural Capital, Social Capital, Intellectual Capital, Resource Management, and Governance). The Sustainable Competitiveness Index was based on 71 indicators (data series) grouped in 4 key issues. The 2014 Sustainable Competitiveness Index is composed of a total of 104 indicators grouped in 5 levels.

Selected comparison of 2013/2014 rankings

Ranking in the Sustainable Competitiveness can change over time. In 2014, the model applied and the methodology used to calculate the Sustainable Competitiveness Index has changed significantly. The underlying competitiveness model has been adapted to better reflect the characteristics of sustainable competitiveness, and the number of indicator (data series) has been increased from 74 in 2013 to 104 in 2014. The change of the methodology account for some changes in the rankings; however, most nations remained in the bracket of ranks despite the changes.

The new Sustainable Competitiveness Index Methodology leads to a more balanced results between small and large

attributed to a combination of methodology changes and changing performance with newer data. Trend developments since the financial crisis in 2008 are only becoming fully visible now, and has significantly affected the ranking of countries hit hardest by the austerity policy applied following the crisis; e.g. the United Kingdom (UK), Spain, Greece, or Italy. At the same time, some non-OECD countries have moved forward visibly (e.g. China, Brazil,

countries, as well as between high-income and low-income countries. Some of the gains/losses can be attributed to methodology changes. However, significant shifts – upwards or downwards - of the individual rankings have to be

Costs Rica, and Uruguay).

Country	2014	2013
Japan	5	12
Germany	7	6
France	13	15
China	20	38
Brazil	21	28
South Korea	22	30
USA	31	27
Italy	34	22
Spain	41	19
Russia	45	48
UK	63	25
India	133	126

Largest economies, rankings 2014 and 2013

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tummary

Sustainable Social Natural Intellectual Resource Governance Spotlight

Capital Capita

2.1 Competitiveness Indicators

The sustainable competitiveness model is based on a pyramid, where each level is required to support the next higher level. In the top-down direction, the different levels of the pyramid have influence the state of the lower levels.

Natural Capital

The natural capital is the base of the pyramid, and is defined by the characteristics of the given physical environment of a country. The natural capital consists of a mixture of size, population, geography, climate, biodiversity and availability of natural resources (renewable and non-renewable), as well as the level of depletion/degradation of the available resources. The combination of these factors and the level of depletion of the non-renewable resources due to human activity and climate change represents the potential for sustaining a prosperous livelihood for the population and the economy of a nation into the future.

Indicators used encompass water, forest and biodiversity indicators, agricultural indicators, land degradation and desertification, minerals and energy resources, pollution indicators and depletion indicators.

Social Capital

The third level of the competitiveness pyramid is the level of social cohesion within a country that is required for the

economy to run free of interruptions. Nations and societies need some minimum level of social cohesion, coherence, and solidarity between different regions, between authorities and the people, between interest groups, between income

levels, between generations, and between individuals. A lack of social cohesion in any of the above aspects leads to social gaps that eventually lead to increased crime, violence and insecurity that can seriously undermine the stability which an economy requires as a basis to thrive in the long run.

Indictors used cover health performance indicators, birth statistics, income differences, equal opportunities (gender, economic), freedom of press, human rights considerations, the level of crime against both possession and humans, and perceived levels of well-being and happiness.

Fossil energy prevalence (% of total) Ecological consumption footprint Renewable freshwater availability/capita Electricity from hydropower (%) Forest area (% of total) Arable land (ha/capita) Potential arable land (ha/capita) Land degradation (% of total) Land at risk of desertification Extreme weather incidents Mineral reserves (per GNI and capita) Population density Cereal yield (kg per hectare) Natural resource depletion **Endangered species** Energy self-sufficiency Land area below 5 m (% of total) Population living below 5m (% of total) Average rainfall (mm) Biodiversity Benefit Index (GEF) Fertilizer consumption/ha Tourist attractiveness Ocean Health Index Population exposed to climate risks

Primary education completion

Social Capital

Doctors per 1000 people
Hospital bed availability
Nurses per 1000 people
Child mortality rate
Birth per woman
Teen moms
Overweight
Life satisfaction index
Press Freedom Index
Peace Index
People reported to the police (%)
Theft
Homicide rate
Prison population rate (per 100'000 people)
Aging society
Suicide rate
Public health spending (% of total health)
Women in parliament (% of MPs)
Human rights index

Summary Sustainable Competitive Capital Capita

Intellectual Capital Primary education completion Primary student repetitions Secondary education enrolment Tertiary education enrolment Mean school years R&D FTEs per million people High tech exports Patent applications per 1 million people Patent applications (per GDP) New business registrations per 1 million people Trademark applications Manufacturing value added Education spending (% of government budget) Pupil-teacher ratio Pupil gender ratio

Resource Management
NOx emissions per GDP
NOx emissions per capita
Energy per GDP
Energy per capita
CO2 emissions / GDP
CO2 emissions /capita
Freshwater withdrawal rate
Electricity consumption per capita
Electricity from coal (%)
Electricity from oil (%)
Renewable electricity excluding hydro (%)
Water productivity
Steel usage efficiency per capita (T/CAPITA)
Air pollution - death due to respiratory infections
Urban air pollution
Hazardous waste per GDP
Obesity rate
GNI per capita
Electricity consumption / GDP

Governance
Mobile communication availability
Transmission losses
Internet availability
TI CPI Index
Bribery payments - % of businesses
Employment in the service sector
Employment in the manufacturing sector
Unemployment
Investments
Austerity Index
GINI coefficient (income distribution inequality)
Income quintile ratio
Quality of public services
Poverty development
Military spending (% of total government
spending)
Rail network per area & population
Government debt
Access to electricity
Bank capital-asset ratio
Market fluctuation exposure: stock trading
volume (% of GDP)
Market fluctuation exposure: company value (%
of GDP)
Imports (% of GDP)
Population (total)
GNI (total)
Ease of doing business

Intellectual Capital

The backbone of sustained economic success is the ability to continuously improve and innovate on all levels and throughout all institutions (not limited to the private sector). Sustaining competitiveness also requires a long-term view beyond momentary political interests or opinions, and long-term investments in crucial areas (education, infrastructure). Economies that are being deprived from investments sooner or later face decline, as some nations of the formerly "leading" West are currently learning the hard way. Indicators used for the innovation capability sub-index cover education levels, R&D performance indicators, infrastructure investment levels, employment indexes, and the balance of the agricultural-industrial-service sectors.

Resource Management

The more efficient a nation is using resources (natural, human, financial), the more wealth the country is able to generate. In addition, higher efficiency means smaller negative impacts of potential supply scarcity of resources (food, energy, water, minerals). Higher efficiency is also equal to lower cost per production unit throughout all sectors, private and public. Efficient use of resources and energy is an indicator for a nation's ability to maintain or improve living standard levels both under a future business-as-usual scenario as well as under changing external economic or geo-political circumstances and influences that might affect raw material and resource prices.

Indicators used cover water usage and intensity, energy usage, intensity and energy sources, climate change emissions and intensity as well as certain raw material usage. However, global data availability for raw materials consumption other than steel is limited and therefore could not be included.

Governance

With the given physical environment and conditions in place, the sustained competitiveness of a country is determined by what the society and the economy is able to extract from available resources. This, in turn, is characterized by the framework provided by authorities. The framework of a country provides the basis for businesses and the social consensus. Governance indicator consist of both physical indicators (infrastructure) as well as non-physical attributes (business legislation, level of corruption, government investments, exposure to business and volatility risks, exposure to financial risks, etc.)

Data sources

Over 90% of the sustainable competitiveness indicators are purely quantitative performance indicators. Data sources were chosen according to reliability and availability of global

data. The largest percentage of indicators was derived from the World Bank's indicator database, followed by data sets and indicators provided by various UN agencies.

2.2 Index calculation

Calculating scores from raw data

The raw data consist of numerical values. While values can be ranked against each other, they cannot be compared or added to other values (two apples plus three oranges are not equal to five pineapples). It is therefore necessary to extract a scalable and comparable score from the raw data as a first step.

When comparing raw data of variables of different countries, an "absolute best" cannot be defined. Scores therefore cannot be calculated against a real or calculated best score. For the purpose of this index, the raw data was analysed and ranked for each indicator individually. Trough calculation of the average deviation, the best performing 5% receive the highest score

Calculating scores from raw

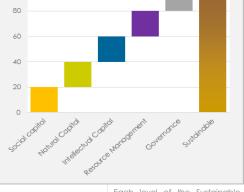
(100), and the lowest 5% receive the lowest possible score (0). Scores between the highest and the lowest 5% are linearly assigned relative to the best 5% and the worst 5%.

In a second step, the relative importance (weight) of the indicator is assessed against other indicators to calculate scores for the 5 sub-indexes. The Sustainable Competitiveness Index is calculated based on the sub-indexes, each weighted equally.

Data in perspective

Raw data has to be analysed in perspective: 5000 ha of forest might be a large area for a country like Andorra, but it is a small area in China. Depending on the indicator, the denominator might be the land area, the size of the population, or intensity measurements, e.g. GDP. For certain indicators, (e.g. energy efficiency, but also innovation indicators), the performance is

evaluated against two denominators (normally population size and GDP) in order to gain a more altruistic picture of the national sustainability performance that incorporates economic and human efficiency.

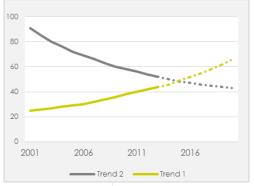


Each level of the Sustainable Competitiveness Pyramid is equally important and therefore equally weighted

Trend analysis: Integrating recent developments

Current data limits the perspective to a momentary picture in time. However, the momentary status is not sufficient to gain a true picture of the sustainable competitiveness, which is, by definition, forward-looking. Of equal importance are therefore the trend developments. Analysing trends and developments allows for understanding of where a country is coming from – and, more importantly - indicates the direction of future developments. Increasing agricultural efficiency, for example, indicates a country's capability to feed an increasing population

in the future, or the opposite if the trends are decreasing. Where sufficient data series are available, the trend was calculated for the latest 5 years available and scored to evaluate the current level as well as the future outlook and sustainability potential of a country based on recent developments.



In order to reflect a dynamic performance picture, performance trends are analysed, scored and integrated in the Sustainable Competitiveness Index



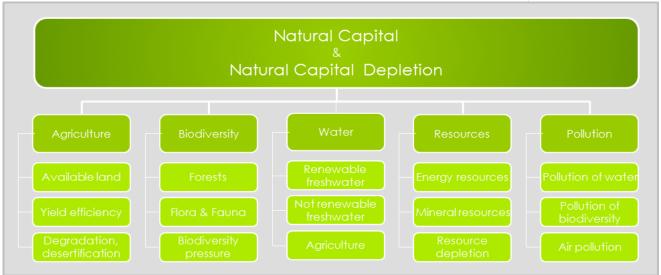
natural capital

Summary Sustainable Capital Social Intellectual Capital Capita

3 Natural Capital

The Natural Capital of a country consists of the natural physical environment. The Natural Capital model incorporates the essence of resources available that would allow a country to be completely self-sustaining: land, water, climate, biodiversity food production and capacity, and energy and mineral resources. In addition, the level of depletion or degradation of those resources that could endanger future self-sufficiency have to be taken into account.

The number of data points available related to natural capital from a variety of sources is nearly endless. The main challenge is therefore to select the most relevant and meaningful indicators amongst the wealth of available data. In order to define meaningful and relevant, the core issues affecting the sustainable use of natural capital have been defined in a natural capital model



Key elements of competitiveness drivers in the Natural Capital Sub-Index

Natural capital indicators

Based on the definition of the key natural capital areas, data series are chosen as indicators that reflect the sustainable competitiveness of a country based on its natural resources (natural capital).

The indicators have been analysed for the latest data point available as well as their development over time, reflecting the current status and the future outlook of Natural Capital availability (environmental sustainability) in relation to the size and population of a country. In addition, indictors that measure the depletion or degradation of the natural resources have taken into account. The combination of the indicators reflect the current status as well as the ability to sustain the population and the national economy.

As some of the above key areas are difficult to express in numerical values, quantitative scores compiled by GEF (Global Environment Facility, a sub-division of the UNEP) have been used for certain indicators, such as biodiversity potential, resource depletion, and the ecological footprint.

For the full list of indicators, refer to the methodology section.

Summary Sustainable Competitive Capital Capita

Natural Capital is the very basis on which a country is built: the physical environment and conditions. The ability to sustain the existing natural capital – the basis for sustained competitiveness - is composed of two main factors: the characteristics of the given geography and climate, combined with the extent of human activities that have or will affect the ability of natural factors to sustain the population and the economy.

A nation's natural capital is a given value – it is as it is – i.e. there are limitations to improve or change the available natural capital. While it takes little to impair or exploit the natural capital, rebuilding or improving natural capital factors is difficult, and requires significant time and resources.

The availability of abundant water resources combined with tropical climate, rich biodiversity and availability of other natural resources leads to high scores. The highest scoring countries are located in tropical areas, underscoring the overarching importance of the availability of water. Many countries in these areas lack social, intellectual and governance capital. However, their Natural Capital would allow them to develop a sustainable competitiveness over time. A certain correlation with the level of human activities and population density can also be observed: large countries with a comparably small population density and rich biodiversity are on top of the Natural Capital ranking (North America, Scandinavia, Brazil).

The top ten according to natural capital indicators contains some surprising and not well known countries like Congo, Bhutan, Cameroon, Suriname, Guyana, and Laos, whereas the OECD's representation in the top twenty is limited to Sweden, Canada and Norway. The ranking of India (169) and China (172) are affected by a combination of arid climate, high population density and depletion levels, raising concerns over those countries' ability to self-sustain their large populations in the absence of well-planned counter-measurements.



The Natural Capital World Map. Dark areas indicate high, light areas low levels of natural capital

Summary Sustainable Competitive Capital Social Capital Capital

Global Natural Capital Rankings

Scores and rankings of the level of Natural Capital by country:

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
Democratic Republic of C	1	74.6	Ecuador	45	53.6	Tajikistan	89	46.5	Spain	133	38.6
Bhutan	2	67.5	Belarus	46	53.3	Guatemala	90	46.4	Mongolia	134	38.4
Suriname	3	67.1	Switzerland	47	52.9	Trinidad and Tobago	91	46.1	Namibia	135	38.0
Cameroon	4	66.6	Croatia	48	52.6	Dominican Republic	92	46.0	Greenland	136	37.7
Guyana	5	65.8	Mozambique	49	52.4	Japan	93	45.7	Turkey	137	37.6
Central African Republic	6	65.6	Sudan	50	52.3	Czech Republic	94	45.6	Philippines	138	37.6
Laos	7	65.3	USA	51	51.9	Portugal	95	45.6	Syria	139	37.5
Burma	8	64.8	Montenegro	52	51.8	Luxembourg	96	45.2	Somalia	140	37.2
Venezuela	9	64.1	Panama	53	51.6	Nigeria	97	45.2	Djibouti	141	37.1
Papua New Guinea	10	64.0	France	54	51.6	Algeria	98	45.0	United Arab Emirates	142	36.8
Sweden	11	62.9	Ghana	55	51.2	Niger	99	44.9	Kuwait	143	36.8
Paraguay	12	62.8	Burkina Faso	56	51.1	Albania	100	44.9	Eritrea	144	36.7
Canada	13	62.2	Bahamas	57	50.9	Macedonia	101	44.8	Malta	146	36.6
Cote d'Iv oire	14	61.8	Costa Rica	58	50.7	Timor-Leste	102	44.7	Kenya	145	36.6
Sierra Leone	15	61.6	Fiji	59	50.7	Ukraine	103	44.6	Qatar	148	36.5
Equatorial Guinea	16	61.4	Ethiopia	60	50.0	Libya	104	44.5	Turkmenistan	147	36.5
Boliv ia	17	60.7	Malawi	61	49.9	Honduras	105	44.5	North Korea	149	36.1
Republic of Congo	18	60.7	Malaysia	62	49.6	Seychelles	106	44.4	Moldova	150	36.1
Norway	19	60.4	Slov akia	63	49.5	Italy	107	44.4	Yemen	151	35.9
Brazil	20	60.2	Ireland	64	49.4	Uzbekistan	108	44.3	United Kingdom	152	35.7
New Zealand	21	60.1	Mauritius	65	49.3	South Africa	109	44.2	Sri Lanka	153	35.5
Zambia	22	60.0	Nepal	66	49.3	Afghanistan	110	43.6	Belgium	154	35.1
Guinea	23	59.5	Dominica	67	49.2	Romania	111	43.5	Thailand	155	34.6
Madagascar	24	59.1	Denmark	68	49.2	Maldiv es	112	43.1	South Korea	156	34.6
Iceland	25	58.8	Lesotho	69	49.2	Georgia	113	42.8	Micronesia	157	34.2
Finland	26	58.8	Chad	70	49.1	South Sudan	114	42.4	Kosovo	158	33.3
Colombia	27	58.1	Uganda	71	49.0	Armenia	115	42.2	Israel	159	32.5
Peru	28	57.6	Australia	72	49.0	Poland	116	42.1	Pakistan	160	32.4
Belize	29	57.3	Bulgaria	73	48.9	Brunei	117	41.6	Bangladesh	161	32.0
Angola	30	56.0	Bosnia and Herzegov ina	74	48.9	Comoros	118	41.4	Lebanon	162	31.5
Guinea-Bissau	31	55.7	Chile	75	48.9	Vietnam	119	41.2	Cyprus	163	31.3
Estonia	32	55.7	Indonesia	76	48.4	Oman	120	41.2	Haiti	164	31.3
Uruguay	33	55.5	Gambia	77	48.4	Burundi	121	41.2	Azerbaijan	165	31.0
Mali	34	55.4	Swaziland	78	48.4	El Salv ador	122	40.9	Jamaica	166	30.7
Latvia	35	55.1	Cambodia	79	48.0	Mauritania	123	40.8	Iraq	167	30.7
Austria	36	55.0	Kyrgistan	80	48.0	Netherlands	124	40.8	Tunisia	168	30.6
Gabon	37	55.0	Slov enia	81	47.9	Germany	125	40.8	India	169	30.4
Russia	38	55.0	Hungary	82	47.8	Botswana	126	40.6	Iran	170	30.2
Argentina	39	54.4	Mexico	83	47.3	Benin	127	40.6	Singapore	171	30.1
Lithuania	40	54.4	Serbia	84	47.1	Morocco	128	40.3	China	172	29.8
Tanzania	41	54.3	Rwanda	85	47.1	Egypt	129	40.1	Jordan	173	27.1
Liberia	42	54.2	Greece	86	46.9	Cuba	130	39.9	Hong Kong	174	23.9
Zimbabwe	43	54.1	Togo	87	46.7	Senegal	131	39.5	West Bank and Gaza	175	19.9
Nicaragua	44	53.6	Saudi Arabia	88	46.6	Kazakhstan	132	39.4	Bahrain	176	18.7



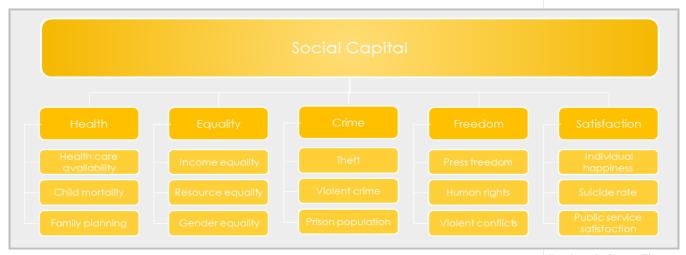
social capital

Summary Sustainable Natural Social Intellectual Resource Management Governance Spotlight Data

4 Social Capital

The Social Capital of a nation is the sum of social stability and well-being (perceived or real) of the entire population. Social Capita generates social cohesion and a certain level of consensus, which in turn delivers a stable environment for the economy, and prevents natural resources from being over-exploited. Social Capital is not a tangible value and therefore hard to measure and evaluate in numeric values. In addition to local historical and cultural influences, the social consensus in a society is affected by several factors: health care systems and their universal availability/affordability (measuring physical health); income and asset equality, which are correlated to crime levels; demographic structure (to assess the future generational balance within a society); and freedom of expression, freedom from fear and the absence of violent conflicts that are required for businesses to be able to generate value.

While establishing a direct connection of social cohesion to creating wealth and sustain economic development might be difficult to establish scientifically, a certain degree of equality, adequate health systems, freedom from fear and equal opportunities (whiteout which no American Dream ever would have been possible) are pre-requisites to achieve the same. The absence or deterioration of social cohesion in turn leads to lower productivity (health), rising crime rates, and potentially social unrest, paralysing economic development and growth.



Social Capital Indicators

The indicators selected to measure social cohesion have been selected from the 5 themes above (health, equality, crime, freedom and age structure). Some of these indicators (e.g. "happiness") are qualitative, i.e. not based on performance data that can be measured. Instead, qualitative indicators from surveys and other sources compiled by recognised organisations were used to measure the qualitative aspects of social cohesion, including single indicators from the Happy Planet Index (New Economics Foundation), the Press Freedom Index (Reporters Without Borders), and the Global Peace Index (Institute for Economics and Peace).

For the full list of indicators, refer to the methodology section.

Key elements of competitiveness drivers in the Social Capital Sub-Index Summary Sustainable Natural Social Intellectual Resource Governance Spotlight Data

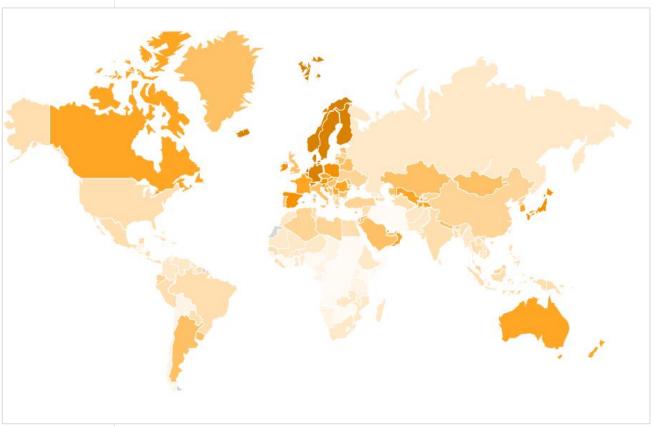
Capital Ca

Social Capital World Map

A certain level of social balance or social consensus is required to maintain a stable environment in which economic activities can take place. The higher the social capital of a country, the better the economy can flourish. The higher the social consensus, the higher the motivation of individuals to contribute to the wider good, i.e. the sustainable development of the nation – and the less likely they are to fall off the track into illegal path of wealth generation that eventually hurt the legal economy. The indicators used to calculate the Social Capital score of countries is composed of health and health care factors (availability and affordability), the quantitative equality within societies (income, assets, and gender equality), freedom indicators (political freedom, freedom from fear, individual happiness), crime levels, and demographic indicators.

The top-ten in the Social Capital sub-index is dominated by European countries from the North – all 5 Nordic countries, Luxembourg, Netherlands, and Germany. Interestingly (and despite gender deficits), Qatar (9th) and Kuwait (16th) make the top 20 thanks to health services available to all, low crime rates, and good public services. Japan (13th) is the only other non-European country in the Top-20. The USA, due to comparable high crime rates and low availability of health services, is ranked 100, just below Nicaragua and before Laos, while the UK is ranked 51. China is ranked 67, Brazil 85, and India 92. The highest ranked South American country is Argentina (56).

Most African nations, particular within and south of the Sahel zone, are at the bottom of this list, due to a combination of low availability of health care services and child mortality, limited freedom of expression and unstable human rights situation.



The Social Capital World Map. Dark areas indicate high, light areas low maturity of Social Capital

Summary Sustainable Natural Capital Social Capital Resource Management Governance Spotlight Data

Global Social Capital Rankings

Scores and rankings of the level of Social Capital Sub-Index by country:

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
Denmark	1	63.1	Lithuania	45	47.6	Peru	89	40.3	Zambia	133	34.8
Luxembourg	2	62.6	Greenland	46	47.5	Albania	90	40.0	Guyana	134	34.2
Iceland	3	62.1	Bulgaria	47	47.5	Thailand	91	40.0	Mauritania	135	34.2
Finland	4	60.0	Nepal	48	47.4	India	92	39.7	Tanzania	136	33.8
Netherlands	5	59.7	Hungary	49	47.3	Bangladesh	93	39.7	Burundi	137	33.5
Norway	6	58.8	Kazakhstan	50	47.2	Indonesia	94	39.5	Cameroon	138	33.5
Sweden	7	58.0	United Kingdom	51	46.9	Bahamas	95	39.3	Comoros	139	33.4
Germany	8	57.3	Saudi Arabia	52	46.7	Syria	96	39.2	Boliv ia	140	33.4
Qatar	9	57.2	Italy	53	46.6	Panama	97	39.0	Uganda	141	33.3
Switzerland	10	57.2	Belarus	54	46.5	Sierra Leone	98	39.0	Guatemala	142	33.1
Austria	11	56.6	Bosnia and Herzegov in	55	46.4	Nicaragua	99	39.0	Chad	143	33.1
Ireland	12	55.6	Argentina	56	46.3	USA	100	38.9	Gabon	144	33.1
Japan	13	55.3	Israel	57	46.2	Laos	101	38.8	Chile	145	32.8
Belgium	14	55.2	Timor-Leste	58	46.1	Liberia	102	38.7	Guinea-Bissau	146	32.7
Spain	15	55.1	Malta	59	46.0	Philippines	103	38.4	Togo	147	32.6
Kuwait	16	55.0	Uruguay	60	45.2	Paraguay	104	38.2	Djibouti	148	32.4
Slov enia	17	54.5	Moldova	61	45.1	Papua New Guinea	105	38.2	Rwanda	149	32.2
Poland	18	53.0	Ecuador	62	44.4	Sri Lanka	106	37.9	Namibia	150	32.0
Cyprus	19	52.6	Dominica	63	44.4	Niger	107	37.9	Angola	151	31.9
Croatia	20	52.6	Latvia	64	44.3	Mozambique	108	37.5	Kenya	152	31.9
Oman	21	52.4	Malaysia	65	44.3	Pakistan	109	37.5	Haiti	153	31.8
Czech Republic	22	52.3	Costa Rica	66	44.3	Venezuela	110	37.5	Iraq	154	31.7
Romania	23	51.9	China	67	44.0	Burkina Faso	111	37.3	Guinea	155	31.5
Kosovo	24	51.7	Macedonia	68	44.0	Trinidad and Tobago	112	37.1	Gambia	156	30.9
France	25	51.7	Seychelles	69	43.6	Georgia	113	37.1	Cote d'Iv oire	157	30.8
Serbia	26	50.8	Kyrgistan	70	43.6	West Bank and Gaza	114	37.1	Iran	158	30.4
Australia	27	50.7	Libya	71	43.4	Belize	115	37.0	South Sudan	159	30.2
Brunei	28	50.3	Algeria	72	43.4	Ghana	116	37.0	Zimbabwe	160	30.1
New Zealand	29	50.2	Bhutan	73	43.0	Benin	117	36.9	Lesotho	161	29.2
Singapore	30	50.2	Turkey	74	42.5	Malawi	118	36.8	Honduras	162	28.8
South Korea	31	50.1	Ukraine	75	42.4	El Salv ador	119	36.3	Yemen	163	28.3
Slov akia	32	50.0	North Korea	76	42.3	Afghanistan	120	36.3	Botswana	164	28.2
Maldiv es	33	49.7	Greece	77	42.0	Russia	121	36.2	Equatorial Guinea	165	28.1
Canada	34	49.4	Cuba	78	41.9	Bahrain	122	36.0	Micronesia	166	27.8
Tajikistan	35	49.2	Azerbaijan	79	41.9	Madagascar	123	36.0	Sudan	167	27.8
Uzbekistan	36	49.0	Mexico	80	41.8	Burma	124	35.8	Eritrea	168	27.3
Estonia	37	48.9	Egypt	81	41.5	Dominican Republic	125	35.6	Democratic Republic o	169	26.3
Lebanon	38	48.9	Suriname	82	41.4	Colombia	126	35.4	Somalia	170	26.3
Montenegro	39	48.6	Jamaica	83	41.3	Mauritius	127	35.3	Fiji	171	26.0
Mongolia	40	48.6	Turkmenistan	84	40.9	South Africa	128	35.1	Nigeria	172	25.7
Portugal	41	48.4	Brazil	85	40.8	Cambodia	129	35.0	Republic of Congo	173	24.9
Armenia	42	48.4	Vietnam	86	40.8	Morocco	130	35.0	Central African Republ	174	24.9
Jordan	43	48.3	Tunisia	87	40.7	Ethiopia	131	35.0	Swaziland	175	21.5
United Arab Emirates	44	47.6	Senegal	88	40.5	Mali	132	34.8	Hong Kong	176	20.6



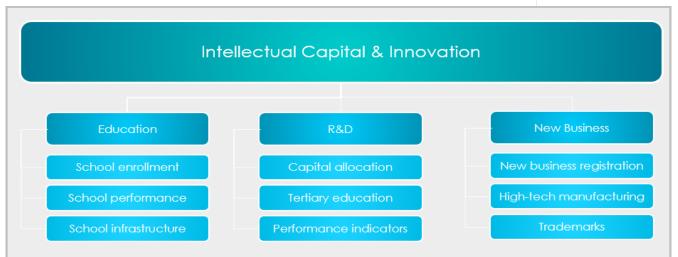
intellectual capital

Summary Sustainable Natural Competitive Capital Capita

5 Intellectual capital

Intellectual Capital is the third level of the Sustainable Competitiveness Pyramid. In order to create and sustain wealth, jobs and income for the population is required. Providing jobs requires producing goods and providing services that people or businesses, domestically or abroad, are willing to buy. This in turn requires products and services to be competitive in the global market in terms of quality and price. To maximise the domestic benefits, the value chain is ideally covered within the boundaries of a national economy (the largest share of adding value is contained in processing raw materials to finished products).

Sustainable competitiveness therefore requires high R&D capabilities (based on solid education), and business entrepreneurship. In addition, sustained economic success requires a healthy balance between service and manufacturing sectors. Over-reliance on the service sector sooner or later leads to diminishing growth potential and loss of knowledge.



Key elements of competitiveness drivers in the Intellectual Capital (innovation capabilities) Sub-Index

Measuring innovation

Quality and availability of education in the past are an indication for today's R&D and innovation capabilities, and today's education performance reflect future innovation capabilities. Strength and depth of R&D activities is the basis for the development of value-added technologies and services. Educational performance indicators are therefore highly important to predict sustained innovation and competitiveness. Additional indicators include performance data on R&D (employees in R&D functions, capital allocation, and patent applications).

Further indicators relate to the actual business entrepreneurship – new business registration, trademark applications, and the health of the balance between agricultural, industrial and service sectors of an economy.

For the full list of indicators, refer to the <u>methodology</u> section.

The Intellectual Capital World Map

Intellectual Capital is the basis for innovation capability and sustainable economic competitiveness. The indicators used for assessing these criteria are composed of data points relating to education, innovation capabilities, and entrepreneurship. Countries with a high score in this ranking are more likely than others to develop (or sustain) successful economies through research and knowledge driven industries, i.e. high-value added industries, and therefore achieve higher growth rates. All indicators used to assess the innovation capability and sustainable competitiveness have been scored against size of the population or against GDP in order to gain a full picture of the competitiveness, independent of the size of a country. In addition, developments (tends) of performance indicators have also been taken into account. Key observations of the Intellectual Capital ranking include:

- The innovation and competitiveness ranking is dominated by the North-Eastern Asian nations and OECD countries from the Northern hemisphere.
- The innovation and competitiveness ranking is topped by Asian countries (South Korea, Singapore, China, Japan in order of ranking),
- Most other Top-20 places are occupied by European economies (Germany, Slovenia, Luxembourg, all Nordic countries) except for Israel (9) and the USA (13)
- Brunei (7) and Saudi Arabia (19) are the surprise representation of the Middle East in the Top 20. Iran (34) and Oman (45) and are also ranked in the top 50
- Malaysia (24) and Costa Rica (33) are the highest ranked countries of the Southern hemisphere. Russia is ranked 38, Brazil 65, and India 114.



The Intellectual Capital World Map. Dark areas indicate high, light areas low availability of Intellectual Capital

Summary Sustainable Natural Competitive Capital Social Capital Intellectual Resource Management Governance Spotlight Data

Global Innovation Rankings

Scores and rankings of Intellectual Capital Sub-Index by country:

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
South Korea	1	75.7	Spain	45	48.1	Algeria	89	37.2	Syria	133	26.7
China	2	66.3	Kazakhstan	46	48.0	Kyrgistan	90	36.6	Lesotho	134	26.5
Singapore	3	66.1	Kosovo	47	47.2	Sri Lanka	91	36.5	Ethiopia	135	26.3
Japan	4	64.8	Slov akia	48	47.0	Albania	92	36.5	Haiti	136	26.3
Germany	5	64.6	Croatia	49	46.6	Qatar	93	36.4	Nicaragua	137	25.9
Slov enia	6	63.0	Greenland	50	46.6	Guyana	94	36.1	Malawi	138	25.7
Brunei	7	62.0	Greece	51	46.5	Suriname	95	36.0	Gabon	139	25.7
Luxembourg	8	60.2	Cyprus	52	46.5	Kenya	96	36.0	Cameroon	140	25.1
Israel	9	59.7	Turkey	53	45.7	Kuwait	97	35.9	Swaziland	141	25.1
Sweden	10	59.7	Mongolia	54	45.7	Cuba	98	35.8	Liberia	142	24.9
Finland	11	58.6	Belize	55	45.5	Nepal	99	35.6	Equatorial Guinea	143	24.7
Czech Republic	12	58.2	Ukraine	56	44.6	Ghana	100	35.2	Namibia	144	24.2
USA	13	58.2	Colombia	57	44.3	Azerbaijan	101	34.5	Iraq	145	24.1
Denmark	14	58.1	Bulgaria	58	44.2	Bahrain	102	34.4	Mali	146	24.0
Netherlands	15	57.0	Mexico	59	43.9	North Korea	103	33.7	Mauritania	147	24.0
France	16	56.9	Dominica	60	43.8	United Arab Emirates	104	32.9	Uganda	148	23.5
Iceland	17	56.6	Australia	61	43.8	Egypt	105	32.8	Togo	149	23.3
Norway	18	56.6	West Bank and Gaza	62	43.6	Libya	106	32.4	South Sudan	150	23.0
Saudi Arabia	19	56.3	Jamaica	63	43.3	Dominican Republic	107	32.4	Somalia	151	22.4
Switzerland	20	54.8	Serbia	64	43.2	Botswana	108	32.1	Bangladesh	152	22.1
United Kingdom	21	54.7	Brazil	65	42.5	Fiji	109	32.1	Guinea-Bissau	153	21.9
Belarus	22	54.7	Moldova	66	42.1	Paraguay	110	31.8	Mozambique	154	21.6
Montenegro	23	54.6	Jordan	67	41.8	Tajikistan	111	31.7	Nigeria	155	21.5
Malaysia	24	54.1	Mauritius	68	41.6	Morocco	112	31.7	Zambia	156	21.4
Ireland	25	54.0	Peru	69	41.6	Rwanda	113	31.2	Niger	157	20.9
Poland	26	53.5	Panama	70	41.6	Micronesia	114	31.2	Cote d'Iv oire	158	20.8
Austria	27	53.3	Lebanon	71	41.5	India	115	30.8	Burkina Faso	159	20.5
Lithuania	28	52.9	South Africa	72	41.4	Bosnia and Herzegov in	116	30.7	Djibouti	160	20.2
Belgium	29	52.8	Indonesia	73	41.1	Burma	117	30.5	Sudan	161	19.8
Portugal	30	52.5	Argentina	74	41.0	Macedonia	118	30.0	Papua New Guinea	162	19.5
Estonia	31	51.4	Seychelles	75	41.0	Laos	119	29.9	Central African Republ	163	19.5
Hungary	32	51.3	Chile	76	40.3	Boliv ia	120	29.8	Sierra Leone	164	19.3
Costa Rica	33	50.9	Romania	77	40.2	Trinidad and Tobago	121	29.7	Zimbabwe	165	19.3
Iran	34	50.2	Turkmenistan	78	40.0	Cambodia	122	29.6	Afghanistan	166	19.1
Canada	35	50.0	Uruguay	79	39.7	Tanzania	123	29.6	Madagascar	167	18.8
New Zealand	36	49.9	Georgia	80	39.5	Senegal	124	29.0	Democratic Republic o	168	18.3
Malta	37	49.7	Venezuela	81	39.2	Republic of Congo	125	29.0	Eritrea	169	18.2
Russia	38	49.4	Maldiv es	82	39.0	Comoros	126	28.1	Gambia	170	17.9
Armenia	39	49.3	Uzbekistan	83	38.5	Benin	127	28.1	Angola	171	17.7
Italy	40	48.9	Timor-Leste	84	38.4	Honduras	128	27.9	Yemen	172	17.0
Latvia	41	48.9	Thailand	85	38.4	Bhutan	129	27.9	Chad	173	16.5
Hong Kong	42	48.6	Vietnam	86	38.3	El Salv ador	130	27.7	Guinea	174	16.3
Tunisia	43	48.6	Bahamas	87	37.7	Philippines	131	27.5	Burundi	175	16.1
Oman	44	48.4	Ecuador	88	37.5	Guatemala	132	27.2	Pakistan	176	11.0



resource management

Summary Sustainable Natural Social Intellectual Resource Management Governance Spotlight Data

6 Resource Management

The top level of the sustainable competitiveness pyramid is the ability to manage available resource (natural capital, human capital, financial capital) efficiently – regardless of whether the capital is scarce or abundant. Whether a country does or does not possess resources within its boundaries (natural and other resources), efficiency in using resources – whether domestic or imported - is a cost factor, affecting the competitiveness and thus wealth of nations. Overexploitation of existing natural resources also affects the natural capital of the country, i.e. the ability of a country to support its population and economy with the required resources.

In addition, non-renewable resources that are used today might be scarce and expensive tomorrow, affecting competitiveness, wealth and the quality of life in the future. A number of factors are pointing to rising cost for resources in the future, in particular natural resources: scarcity and depletion of energy, water, and mineral resources, increasing consumption (particular in non-OECD countries), financial speculation on raw materials, and possibly geo-political influences. The key objective of the resource management category is therefore to evaluate a country's ability to deal with rising cost and sustain economic growth in the face of rising prices in the global commodity markets.



Key elements of competitiveness drivers in the Resource Management Sub-Index

Vital natural resources include water, energy, and raw materials. Most of the resources used today are non-renewable, or only partly renewable: fossil-based energy, and minerals. Water aquifers and other natural products (e.g. wood) are renewable, as long as their capacity is not overused and the replacement patterns are not drastically altered, e.g. trough depletion, biodiversity loss, pollution, or climate change.

Resource efficiency indicators are evaluated both in terms of intensity (per capita) and efficiency (relative GDP). The availability of accurate global data is not as wide as in other criteria, particularly in terms of usage of raw materials. Other than steel & minerals usage, reliable raw material usage statistics are not available on a global level. The focus is therefore on energy, energy sources, water, steel usage, as well as GHG emission intensity and productivity. For the full list of indicators, refer to the methodology section.

Resource Management World Map

The resource intensity ranking is topped by less developed countries, with no OECD nation or developed economy in the top 10. Iceland, the highest ranking of the developed economies, is placed 19, followed by Ireland (22), New Zealand (31) and Finland (33). The World's economic powerhouses score comparable low - Germany is ranked 82, the USA 137, and Japan at 146. Brazil is positioned the highest among the large emerging economies (Rank 21), while India (122), China (149) and Russia (157) have a distinctive potential for improving their sustainable competitiveness through improving resource intensity and resource management.

The Resource Management Sub-Index is composed of indicators scored relative to population (e.g. GHG per capita) as well as relative to economic output (e.g. energy consumption per GDP). Indicators measured against population (per capita) clearly favour countries with low resource and raw material consumption (i.e. less developed countries), while indicators scored relative to GDP measure economic efficiency.

The resource intensity map shows that the resource intensity of less developed countries seems to be lower than that of higher developed countries - despite the weighting (as calculated by relevance) for scores measured against economic output (GDP) being significantly higher than for absolute intensity scores (measured against capita).

The main implications of resource management capabilities are related to stability and sustained economic growth: should global prices for raw materials and energy rise significantly in the future (as trends and the majority of available research suggests), the countries in the lower ranks will face substantial higher challenges to maintain their growth compared to countries with higher efficiency and intensity scores.



The Resource Intensity World Map. Dark areas indicate low, light areas indicate high resource Intensity.

Summary Sustainable Natural Social Intellectual Resource Management Governance Spotlight Data

Resource Management Rankings

Scores and rankings of the level of Resource Management Sub-Index by country:

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
Guatemala	1	55.8	Bangladesh	45	Score	Peru	89	37.8	Egypt	133	33.5
El Salv ador	2	52.8	Denmark	46	55.8	South Africa	90	37.7	Botswana	134	33.4
Nepal	3	50.7	Senegal	47	52.8	Central African Republ	91	37.7	Jordan	135	33.4
Belize	4	50.5	Ghana	48	50.7	Australia	92	37.7	Algeria	136	33.3
Ethiopia	5	50.2	Paraguay	49	50.5	Indonesia	93	37.6	USA	137	33.0
Costa Rica	6	49.8	Colombia	50	50.2	West Bank and Gaza	94	37.6	Qatar	138	32.7
Togo	7	49.6	Romania	51	49.8	Масао	95	37.5	Trinidad and Tobago	139	32.6
Nicaragua	8	49.5	Austria	52	49.6	Hungary	96	37.4	Seychelles	140	32.6
Tajikistan	9	49.4	Canada	53	49.5	Burundi	97	37.3	Belarus	141	32.6
Cambodia	10	49.0	France	54	49.4	Georgia	98	37.3	Niger	142	32.5
Boliv ia	11	48.5	Cameroon	55	49.0	United Kingdom	99	37.3	Mexico	143	32.3
Burma	12	48.5	Belgium	56	48.5	Sudan	100	37.2	Morocco	144	32.0
Tanzania	13	48.5	Switzerland	57	48.5	Madagascar	101	37.1	Ukraine	145	31.7
Nigeria	14	47.9	Portugal	58	48.5	Latvia	102	37.0	Cuba	146	31.7
Kenya	15	47.7	Gabon	59	47.9	Vietnam	103	36.8	Japan	147	31.6
Haiti	16	47.5	Republic of Congo	60	47.7	Tunisia	104	36.8	Czech Republic	148	31.5
Papua New Guinea	17	47.5	Mali	61	47.5	Ecuador	105	36.7	China	149	31.5
Iceland	18	47.5	Angola	62	47.5	Burkina Faso	106	36.7	Argentina	150	31.3
Zambia	19	45.5	Kyrgistan	63	47.5	Comoros	107	36.4	Djibouti	151	31.3
Mozambique	20	45.4	Slov akia	64	45.5	Mauritius	108	36.3	Hong Kong	152	31.2
Democratic Republic o	21	45.1	Rwanda	65	45.4	Malta	109	36.3	Kosovo	153	31.0
Uzbekistan	22	44.9	Azerbaijan	66	45.1	Fiji	110	36.1	Somalia	154	30.7
Ireland	23	44.9	Lesotho	67	44.9	Dominican Republic	111	36.0	South Sudan	155	30.7
Cote d'Iv oire	24	44.3	Timor-Leste	68	44.9	Croatia	112	35.9	United Arab Emirates	156	30.6
Dominica	25	44.2	Brazil	69	44.3	Poland	113	35.7	Russia	157	30.5
Lithuania	26	44.2	Sweden	70	44.2	Netherlands	114	35.5	Bahamas	158	30.3
Benin	27	43.8	Sierra Leone	71	44.2	Panama	115	35.5	Mongolia	159	30.3
Zimbabwe	28	43.7	Honduras	72	43.8	Bosnia and Herzegov in	116	35.4	Israel	160	30.1
Laos	29	43.7	Uganda	73	43.7	Norway	117	35.4	Lebanon	161	29.9
Jamaica	30	43.6	Suriname	74	43.7	Guinea	118	35.3	Bulgaria	162	29.6
New Zealand	31	43.5	Equatorial Guinea	75	43.6	Thailand	119	35.0	Serbia	163	28.8
Uruguay	32	43.2	Afghanistan	76	43.5	Syria	120	34.9	Brunei	164	28.7
Finland	33	42.9	Sri Lanka	77	43.2	Singapore	121	34.8	Bahrain	165	28.7
Bhutan	34	42.3	Greenland	78	42.9	India	122	34.8	Malaysia	166	28.6
Philippines	35	42.1	Chad	79	42.3	Swaziland	123	34.7	Mauritania	167	28.4
Luxembourg	36	41.8	Greece	80	42.1	Gambia	124	34.4	Maldiv es	168	28.2
Spain	37	41.7	Venezuela	81	41.8	Guinea-Bissau	125	34.3	Turkey	169	28.1
Guyana	38	41.5	Germany	82	41.7	Malawi	126	34.3	Saudi Arabia	170	27.9
Italy	39	41.4	Albania	83	41.5	Slov enia	127	34.0	Iran	171	27.8
Eritrea	40	41.3	Liberia	84	41.4	Macedonia	128	33.9	Montenegro	172	27.8
Moldov a	41	41.2	Cyprus	85	41.3	Turkmenistan	129	33.9	Kazakhstan	173	26.4
Namibia	42	41.1	Chile	86	41.2	Armenia	130	33.8	Oman	174	24.4
Yemen	43	41.0	Estonia	87	41.1	Iraq	131	33.8	Kuwait	175	22.5
North Korea	44	40.9	Pakistan	88	41.0	Libya	132	33.7	South Korea	176	22.3



governance

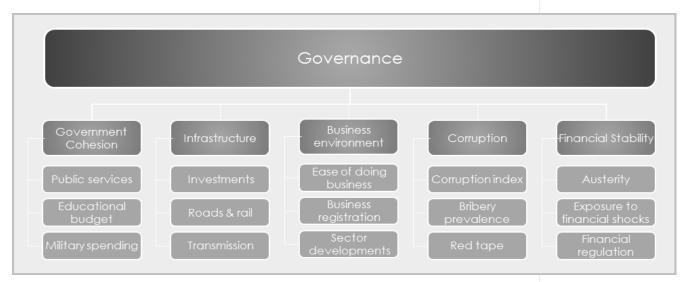
Summary Sustainable Natural Governance Social Intellectual Resource Spotlight Data

7 Governance

Governing strategy: Shaping Social and Economic Capital

The base of the Sustainable Competitiveness Pyramid – the Natural Capital of a country, is given. Everything else – the society, the economy - is shaped by the legal, regulatory and physical (human built) framework. This framework – the environment in which society exists and businesses operate - is developed, maintained and updated by authorities and institutions, most often government bodies. The Governance Sub-Index therefor encompasses all aspects that shape the framework of the society (the Social Capital), and the economy (Intellectual Capital, Resource Management) operate in. Key aspects of the Governance aspects include:

- strategic direction of government-led development (the balance between the key elements of government spending: health, education, infrastructure, security).
- the built physical environment (infrastructure) required for smooth operation of the society and businesses, the availability and quality of public services,
- the framework provided to businesses (formal in terms of business regulations, and informal in terms of red tape and corruption negatively affecting businesses),
- exposure to volatility in terms of government balance sheets, and exposure to volatility shocks as posed by financial market fluctuations.



Measuring Governance

The result of qualitative governance quality & strategy evaluation depends very much on the evaluator. The Sustainable Competitiveness Index therefore relies on purely quantitative data series to evaluate and calculate the Governance Sub-Index direction. In addition, some qualitative indicators (perceived quality of public services and perceived levels of corruption determined through surveys) have been incorporated.

For the full list of indicators, refer to the <u>methodology</u> section.

Key elements of competitiveness drivers in the Governance Sub-Index

The Governance World Map

The Governance Sub-Index of the Sustainable Competitiveness Index is based on quantitative data series. And is therefore not a qualitative evaluation of government systems. IN addition, some aspects of government direction implications (such as human rights, freedom of press, etc.) are assigned to the Social Capital Index. The Governance Sub-Index aims at evaluating the suitability of a country's regulatory framework and infrastructure environment to facilitate sustainable competitiveness. The regulatory and infrastructure framework should enable a framework in which the country's natural, social and intellectual capital of the country to generate new and sustain existing wealth.

Observations on the Governance ranking include:

- The Governance Ranking is topped by China, followed by Japan.
- Interestingly, all BRIC countries score high in this ranking: China (1), Brazil (7), Russia (8), and India (21); South Africa is further down at 84.
- The highest ranked European country is Germany (6), followed by Norway (12), Iceland (13) and Switzerland (14).
- The USA is ranked 32, while the UK is somewhat left behind at 102.
- Most African nations are also ranked low
- South America scores above average in this on this Sustainable Competitiveness Sub-Index



The Governance World Map. Dark areas indicate high, light areas low levels of Governance quality

Summary Sustainable Natural Competitive Capital Governance Social Capital Resource Management Spotlight Data

Global Governance Rankings

Scores and rankings of the level of Governance Sub-Index by country:

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
China	1	70.0	Boliv ia	45	51.1	Ireland	89	45.6	Macedonia	133	40.8
Japan	2	69.4	Sweden	47	51.0	Morocco	90	45.4	Kenya	134	40.7
Indonesia	3	63.8	Italy	48	50.7	Republic of Congo	91	45.2	Zimbabwe	135	40.5
Uruguay	4	60.8	Ecuador	49	50.5	Hungary	92	44.9	Greece	136	40.3
Kazakhstan	5	60.0	Israel	50	50.3	Tunisia	93	44.8	Trinidad and Tobago	137	40.2
Germany	6	59.1	Gabon	51	50.2	Bulgaria	94	44.8	Malta	139	39.8
Brazil	7	58.4	Burma	52	50.1	Benin	95	44.7	Maldiv es	138	39.8
Russia	8	57.7	Canada	53	50.0	Suriname	100	44.5	Afghanistan	141	39.4
Chile	9	57.2	Cuba	54	49.8	Greenland	96	44.6	Djibouti	140	39.5
Argentina	10	56.6	Kuwait	55	49.8	Mozambique	98	44.6	Jordan	145	39.1
Singapore	12	56.0	Nigeria	56	49.7	Paraguay	97	44.6	Chad	144	39.1
Norway	11	56.0	Venezuela	57	49.6	West Bank and Gaza	101	44.5	Montenegro	142	39.1
Iceland	13	55.9	Bhutan	58	49.4	Dominica	99	44.5	Jamaica	143	39.1
Switzerland	15	55.2	Nepal	59	49.3	United Kingdom	102	44.3	Kosovo	146	38.8
Mauritius	16	54.8	Latvia	60	49.1	Bahrain	104	44.1	Burkina Faso	147	38.6
Oman	17	54.7	Armenia	61	48.6	Belgium	103	44.1	Albania	148	38.5
South Korea	14	55.6	Turkey	62	48.5	Panama	105	43.9	Sudan	149	38.4
Vietnam	18	54.6	Libya	63	48.3	Rwanda	106	43.8	Eritrea	150	38.0
Thailand	19	54.4	Slov akia	64	48.2	North Korea	107	43.5	Mauritania	151	37.9
Mongolia	20	54.3	Luxembourg	65	48.2	Equatorial Guinea	108	43.5	Guinea	152	37.9
India	21	54.2	Finland	66	47.9	Portugal	109	43.3	Bahamas	153	37.8
Australia	22	53.7	Egypt	67	47.9	Angola	110	43.2	Gambia	154	37.7
Estonia	24	53.1	Pakistan	68	47.8	Laos	111	42.9	Tajikistan	155	37.6
Ghana	23	53.1	Sri Lanka	69	47.7	Cyprus	112	42.8	Fiji	156	37.0
Malaysia	26	52.8	United Arab Emirates	70	47.7	Swaziland	115	42.6	Timor-Leste	157	36.9
Peru	25	52.8	Ukraine	71	47.6	Uganda	113	42.8	Malawi	158	36.8
Georgia	27	52.7	Turkmenistan	72	47.5	Sierra Leone	114	42.7	Cote d'Iv oire	159	36.8
New Zealand	28	52.5	Ethiopia	73	47.5	Democratic Republic c	119	42.5	Burundi	160	36.8
Botswana	29	52.4	Czech Republic	75	47.3	Netherlands	118	42.5	Togo	161	36.5
Bangladesh	30	52.3	Cambodia	74	47.3	Tanzania	117	42.5	Hong Kong	162	35.4
Azerbaijan	31	52.0	Serbia	76	47.2	Lebanon	116	42.5	Belize	163	35.2
USA	33	51.8	Denmark	77	46.9	Lesotho	120	42.5	Nicaragua	165	34.7
Mexico	34	51.8	Guatemala	78	46.8	Papua New Guinea	121	42.4	Somalia	164	34.7
Saudi Arabia	32	51.9	Uzbekistan	79	46.7	Zambia	122	42.4	Comoros	166	34.5
Poland	35	51.7	Slov enia	80	46.6	Senegal	123	42.3	Madagascar	168	34.1
Belarus	38	51.5	Lithuania	81	46.4	Dominican Republic	124	42.1	South Sudan	167	34.2
Seychelles	36	51.7	Kyrgistan	83	46.3	Cameroon	125	42.1	Syria	169	33.8
Algeria	37	51.6	Namibia	82	46.3	Guyana	126	42.0	Guinea-Bissau	170	32.8
Austria	39	51.4	South Africa	84	46.3	El Salv ador	127	41.5	Mali	171	32.0
Philippines	40	51.4	Iran	85	46.1	Brunei	128	41.4	Honduras	172	30.5
Colombia	41	51.4	Spain	86	46.0	Liberia	129	41.4	Micronesia	173	29.8
France	43	51.3	Moldova	87	46.0	Iraq	130	41.3	Central African Republ	174	29.5
Qatar	42	51.3	Croatia	88	45.9	Niger	131	41.0	Yemen	175	27.8
Costa Rica	44	51.1	Ireland	89	45.6	Bosnia and Herzegovir	132	41.0	Haiti	176	27.4



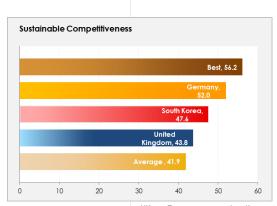
Spotlight

UK laissez-fair vs.
Korea planned development

ummary Sustainable Natural Social Intellectual Resource Governance Spotlight Data

8 Spotlight: UK vs. Korea

In this section, we would like to draw the attention to some observations made from the results of the Global Sustainable Competitiveness Index 2014. One of the interesting facts is that the UK, still one of the larger economies of the World, and still a dream destination for many citizens of impoverished countries, is ranked surprisingly low at 65, just above the global average in terms of score – far below other North-western European countries, and also considerably below emerging nations such as South Korea, but also China and Brazil. The question is – why is the UK ranked so far below what most people would expect?



■ United Kingdom ----

70

60

40

30

20

10

UK, Germany and Korea sustainable competitiveness scores

UK scores in line with global averages cross the 5 Sub-Indexes

In order to analyse the UK's sustainable competitiveness rankings, South Korea as a recently emerging economy and Germany, the long-term economic power-

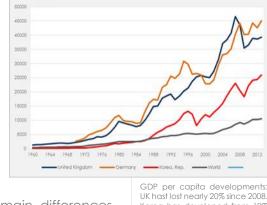
house were selected to compare the differences in national development and their implications for the sustainable competitiveness of a country.

The UK is ranked 152 in Natural Capital, 51 in Social Capital, 21 in Intellectual Capital, 99 in Resource Management, and 102 in the Governance, i.e. in most rankings the UK scores in the range of the global average in most Sub-Indexes of the Sustainable Competitiveness Index.

In terms of GDP per capita, the UK is still top-drawer on the global scale, but has lost more than 20% following the financial

crises in 2007, with recovery only slowly setting in. Germany struggled for nearly a decade with the integration of Eastern Germany after the Wall came down in

1989, but has picked up steam in the new millennium and was not severely affected by the financial crisis. Korea meanwhile had its own struggles in the late 90s with the Asian fever, but has grown again since and has recovered well after the financial crisis through Keynesian recipes based on infrastructure and technology development programs. Koreas GDP/capita is surpassing pre-crisis levels since 2010; an achievement that the UK is still far from reaching with financial market (quantitative easing) intervention programs. Most interestingly however is probably Korea's development since the 1960s: In 1960, Koreas GDP/capita was roughly 10% of the UK and remained below 20% until 1980 – in 2013, it was 65%.

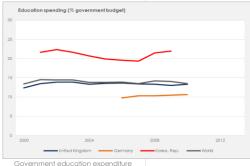


GDP per capita developments: UK hast lost nearly 20% since 2008. Korea has developed from 10% of UK levels to 65% since the 1970s. Germany struggled in the 90s following the integration of Eastern Germany, but has been growing strong since

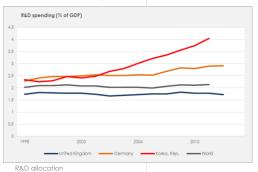
The reaction to the financial crises also characterises the main differences between Korea's and the UK's approach to national development strategy since the 1980s. While the UK seem to have put the main emphasises on market forces and financial markets (i.e. forgoing, whether wilfully or not, a clear national economic development strategy), Korea has established a tradition of setting national development strategies in co-operation between government and the economy, whereby target industry, technology and service clusters are identified as priorities. The government sets the framework supporting the national development plan through provision of infrastructure, educational

Spotlight

policy setting, and supporting trade regulations, while the industry is developing the technology.







Patent applications per capita: Korea skyrocketing, UK dropping below



Employment in the manufacturing ctor: UK has lost nearly 50% since 1980, representing less than 20% now

The importance assigned to education is clearly visible in government expenditure. More than 20% of Korean government expenditure is allocated to education (in addition to significant private spending). The UK's spending is significantly lower, but in line with global average. Interestingly, Germany spends below the global average on education, seemingly without adverse impacts on the country's innovation and/or industrial capabilities. In other words, spending on education is probably not the key reason for the UK being left behind.

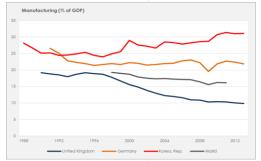
However, somewhere on the Intellectual Capital side things seem to go wrong for the UK. Strong R&D capabilities is the basis for competitiveness through innovation. Korea has increased spending on R&D from above 2% in 2000 to 4% of GDP, Germany (albeit with lower growth rates) to 3%, while the UK's expenditure on R&D has declined to 1.6%, and is below the global average.

The results of Korea's high educational and R&D spending are visible in the number of patent applications: since the 1990s. Patent applications in Korea have skyrocketed, leaving both Germany and the UK behind. However, while Germany's patent applications are slowly rising, patent applications in the UK have declined since the 1990, and are now pretty much in line with the global average.

The number of patent application is also reflected in the size of the high-tech sector: while Korea has a well-developed and globally present high-tech industry, the manufacturing high-tech industry in the UK – the motherland of modern industrialisation – has become marginal.

The lack of a high-tech industry is also reflected in the employment figures of the different economic sectors. Less than 20% of the work-force in the UK are now employed in the manufacturing sector - a loss of nearly 50% since 1980. In Germany, this percentage is the highest, to some extend also due to the industry prevalence in Germany (machinery). Production in Korea's high-tech industry is increasingly taken over by robots or has been outsourced to cheaper countries, explaining the relative decline in industrial employment in Korea.

The most drastic picture becomes visible when comparing the value added of the manufacturing sectors: in the UK, less than 10% of GDP are now generated



Percentage of GDP generated by the manufacturing sector dropped to below 10% in the UK, Korea increased to above 30%

by manufacturing (and many of the remaining manufacturing employment is low-skill food production and processing employment) – while Korea has increased the percentage generated by the manufacturing and industrial sector to over 30%. In short: the industry in UK has almost completely vanished, leaving the country dependent on the energy, finance and service sectors.

Summary

Sustainable

Natural Capital Social Capital ntellectual Capital Resource Management

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Spotlight

On the other hand, the financial sector in the UK is very strong – too strong, as critics would say. The stock market value of traded companies in the UK was 150% of the national GDP just before the financial crisis. During the crisis, the market capitalisation dropped to roughly 75% of GDP – i.e. the financial crisis destroyed wealth in the amount of 75% of the annual GDP. The equivalent value in Korea is nearly 100%, while in Germany the market value of listed companies is below 50%. The volume of annually traded stocks has reached even higher levels – in the UK, nearly 350% worth of the national GDP was traded in the year before the financial crisis 2007. In Korea, the equivalent value was 200%, in Germany 100%.

The market capitalisation lost by listed German companies during the financial crisis was significantly smaller than in the UK. This also reflects the dangers of overexposure to financial markets. In the absence of a meaningful industrial sector, as is the case in the UK, market fluctuations have a much higher impact on the national economy.

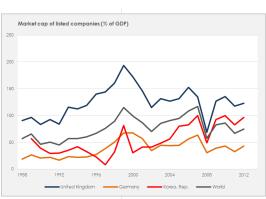
Implications

According to the Sustainable Competitiveness Pyramid, the base levels are required to support the higher levels, while the higher levels have a larger impacts on the level below. This

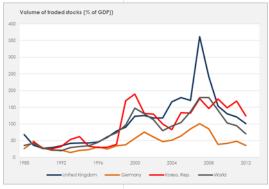
notion seems to be supported by the UK case – the lack of a coherent national development strategy and implementation roadmap other than leaving the financial markets a free hand has left the UK far behind other European nations. In the absence of an alternative approach – away from the financial markets and back towards a healthier balance between the different sectors of the economy - a true, sustainable recovery (other than on the financial markets) is not foreseeable in the near future.

Korea, on the other hand, has seen successful development over recent decades based on national development priority plans tailor-made to the current development stage. It looks as if Korea has fairly well managed the transition from a cheap OEM manufacturing market (OEM textile manufacturing was a key element of the economy as short back as the 1970s) to an innovation-based technology exporting economy, competitive in the global markets. However, while Korea scores highest in the Intellectual Capital, the country also is ranked lowest of the 176 countries in Resource Management. Korea needs to balance its resource intensity in order to maintain current wealth generating levels in the long term, i.e. needs to deeper integrate resource management into its development priorities.

Comparing the UK and Korea, with very different approaches to national economic development, seems to suggest that setting and implementing integrated national development plans is significantly more sustainable (and successful) than letting the financial markets leading the way.



Market capitalisation of listed companies was 150% of GDP before the financial crisis in the UK, Korea at 100%, while Germany remains below 50%



Trading volume reached more than 350% of GDP in the UK before the crisis, returned to healthier levels after, Korea is still above 150%; Germany remains below 50%



ranking tables

Summary Sustainable Capital Management Intellectual Capital Spotlight Data

9 Rankings at a glance

The Global Sustainable Competitiveness Index

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
Iceland	1	56.2	Russia	45	45.8	Ethiopia	89	41.8	India	133	38.0
Sweden	2	54.1	Hungary	46	45.7	Tanzania	90	41.7	Jordan	134	37.9
Finland	3	53.6	Venezuela	47	45.7	Malta	91	41.7	Togo	135	37.7
Norway	4	53.4	Suriname	48	45.6	Cameroon	92	41.5	Angola	136	37.6
Japan	5	53.3	Belgium	49	45.4	Democratic Republic o	93	41.4	Zimbabwe	137	37.5
Switzerland	6	52.0	Romania	50	45.4	Timor-Leste	94	41.1	Uganda	138	37.5
Germany	7	52.0	Dominica	51	45.2	South Africa	95	40.9	Bangladesh	139	37.4
Denmark	8	51.6	Belize	52	45.1	Zambia	96	40.8	Botswana	140	37.3
Luxembourg	9	51.6	Brunei	53	44.8	Gabon	97	40.7	Lesotho	141	37.3
Austria	10	51.3	Uzbekistan	54	44.7	Nicaragua	98	40.5	Trinidad and Tobago	142	37.2
New Zealand	11	51.2	Boliv ia	55	44.7	Turkey	99	40.5	Mali	143	37.1
Canada	12	50.4	Ecuador	56	44.5	Bosnia and Herzegov in	100	40.5	Madagascar	144	37.0
France	13	50.3	Armenia	57	44.4	Thailand	101	40.5	Iran	145	36.9
Ireland	14	49.9	Montenegro	58	44.4	Libya	102	40.5	Morocco	146	36.9
Estonia	15	49.4	Oman	59	44.2	Kosovo	103	40.4	Burkina Faso	147	36.8
Costa Rica	16	49.4	Kazakhstan	60	44.2	Sierra Leone	104	40.3	Malawi	148	36.7
Slov enia	17	49.2	Laos	61	44.1	Mozambique	105	40.3	West Bank and Gaza	149	36.6
Lithuania	18	49.1	Guyana	62	44.0	Tunisia	106	40.3	Fiji	150	36.4
Uruguay	19	48.9	United Kingdom	63	43.8	Kuwait	107	40.0	Namibia	151	36.3
China	20	48.3	Israel	64	43.7	Maldiv es	108	39.9	Guinea	152	36.1
Brazil	21	48.2	Paraguay	65	43.6	Republic of Congo	109	39.9	Guinea-Bissau	153	35.5
Belarus	22	47.7	Mauritius	66	43.5	El Salv ador	110	39.9	Niger	154	35.5
South Korea	23	47.6	Serbia	67	43.4	Cuba	111	39.8	Central African Repub	155	35.4
Singapore	24	47.4	Mongolia	68	43.4	Turkmenistan	112	39.7	Afghanistan	156	35.4
Poland	25	47.2	Chile	69	43.4	Azerbaijan	113	39.7	Chad	157	35.2
Netherlands	26	47.1	Mexico	70	43.4	Albania	114	39.6	Sudan	158	35.1
Czech Republic	27	47.0	Ghana	71	43.4	Jamaica	115	39.6	Comoros	159	34.8
Australia	28	47.0	Bulgaria	72	43.0	Liberia	116	39.4	Swaziland	160	34.5
Latvia	29	46.9	Greenland	73	43.0	Philippines	117	39.4	Syria	161	34.4
Slov akia	30	46.8	Tajikistan	74	42.9	North Korea	118	39.3	Honduras	162	34.1
USA	31	46.8	Qatar	75	42.8	Bahamas	119	39.2	Gambia	163	33.9
Croatia	32	46.7	Greece	76	42.8	Sri Lanka	120	39.2	Pakistan	164	33.3
Nepal	33	46.4	Kyrgistan	77	42.7	Equatorial Guinea	121	39.2	Mauritania	165	33.0
Italy	34	46.4	Seychelles	78	42.7	Egypt	122	39.1	Burundi	166	33.0
Indonesia	35	46.1	Vietnam	79	42.3	United Arab Emirates	123	39.1	Haiti	167	32.9
Bhutan	36	46.0	Panama	80	42.3	Cote d'Iv oire	124	38.9	Bahrain	168	32.4
Peru	37	46.0	Papua New Guinea	81	42.3	Lebanon	125	38.9	Iraq	169	32.3
Burma	38	45.9	Cyprus	82	42.2	Benin	126	38.8	Eritrea	170	32.3
Argentina	39	45.9	Ukraine	83	42.2	Rwanda	127	38.7	Micronesia	171	32.1
Colombia	40	45.9	Moldova	84	42.1	Macedonia	128	38.7	South Sudan	172	32.1
Spain	41	45.9	Ageria	85	42.1	Kenya	129	38.6	Djibouti	173	32.1
Malaysia	42	45.9	Georgia	86	41.9	Dominican Republic	130	38.4	Hong Kong	174	32.0
Saudi Arabia	43	45.9	Guatemala	87	41.9	Senegal	131	38.4	Somalia	175	30.3
Portugal	44	45.9	Cambodia	88	41.8	Nigeria	132	38.0	Yemen	176	30.0

Summary Sustainable Competitive Capital Management Intellectual Capital Governance Social Capital Spotlight Data

Natural Capital Sub-Index

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
Democratic Republic of C		74.6	Ecuador	45	53.6	Tajikistan	89	46.5	Spain	133	38.6
Bhutan	2	67.5	Belarus	46	53.3	Guatemala	90	46.4	Mongolia	134	38.4
Suriname	3	67.1	Switzerland	47	52.9	Trinidad and Tobago	91	46.1	Namibia	135	38.0
Cameroon	4	66.6	Croatia	48	52.6	Dominican Republic	92	46.0	Greenland	136	37.7
Guyana	5	65.8	Mozambique	49	52.4	Japan	93	45.7	Turkey	137	37.6
Central African Republic	6	65.6	Sudan	50	52.3	Czech Republic	94	45.6	Philippines	138	37.6
Laos	7	65.3	USA	51	51.9	Portugal	95	45.6	Syria	139	37.5
Burma	8	64.8	Montenegro	52	51.8	Luxembourg	96	45.2	Somalia	140	37.2
Venezuela	9	64.1	Panama	53	51.6	Nigeria	97	45.2	Djibouti	141	37.1
Papua New Guinea	10	64.0	France	54	51.6	Algeria	98	45.0	United Arab Emirates	142	36.8
Sweden	11	62.9	Ghana	55	51.2	Niger	99	44.9	Kuwait	143	36.8
Paraguay	12	62.8	Burkina Faso	56	51.1	Albania	100	44.9	Eritrea	144	36.7
Canada	13	62.2	Bahamas	57	50.9	Macedonia	101	44.8	Malta	146	36.6
Cote d'Iv oire	14	61.8	Costa Rica	58	50.7	Timor-Leste	102	44.7	Kenya	145	36.6
Sierra Leone	15	61.6	Fiji	59	50.7	Ukraine	103	44.6	Qatar	148	36.5
Equatorial Guinea	16	61.4	Ethiopia	60	50.0	Libya	104	44.5	Turkmenistan	147	36.5
Boliv ia	17	60.7	Malawi	61	49.9	Honduras	105	44.5	North Korea	149	36.1
Republic of Congo	18	60.7	Malaysia	62	49.6	Seychelles	106	44.4	Moldova	150	36.1
Norway	19	60.4	Slov akia	63	49.5	Italy	107	44.4	Yemen	151	35.9
Brazil	20	60.2	Ireland	64	49.4	Uzbekistan	108	44.3	United Kingdom	152	35.7
New Zealand	21	60.1	Mauritius	65	49.3	South Africa	109	44.2	Sri Lanka	153	35.5
Zambia	22	60.0	Nepal	66	49.3	Afghanistan	110	43.6	Belgium	154	35.1
Guinea	23	59.5	Dominica	67	49.2	Romania	111	43.5	Thailand	155	34.6
Madagascar	24	59.1	Denmark	68	49.2	Maldiv es	112	43.1	South Korea	156	34.6
Iceland	25	58.8	Lesotho	69	49.2	Georgia	113	42.8	Micronesia	157	34.2
Finland	26	58.8	Chad	70	49.1	South Sudan	114	42.4	Kosovo	158	33.3
Colombia	27	58.1	Uganda	71	49.0	Armenia	115	42.2	Israel	159	32.5
Peru	28	57.6	Australia	72	49.0	Poland	116	42.1	Pakistan	160	32.4
Belize	29	57.3	Bulgaria	73	48.9	Brunei	117	41.6	Bangladesh	161	32.0
Angola	30	56.0	Bosnia and Herzegovina	74	48.9	Comoros	118	41.4	Lebanon	162	31.5
Guinea-Bissau	31	55.7	Chile	75	48.9	Vietnam	119	41.2	Cyprus	163	31.3
Estonia	32	55.7	Indonesia	76	48.4	Oman	120	41.2	Haiti	164	31.3
Uruguay	33	55.5	Gambia	77	48.4	Burundi	121	41.2	Azerbaijan	165	31.0
Mali	34	55.4	Swaziland	78	48.4	El Salv ador	122	40.9	Jamaica	166	30.7
Latvia	35	55.1	Cambodia	79	48.0	Mauritania	123	40.8	Iraq	167	30.7
Austria	36	55.0	Kyrgistan	80	48.0	Netherlands	124	40.8	Tunisia	168	30.6
Gabon	37	55.0	Slov enia	81	47.9	Germany	125	40.8	India	169	30.4
Russia	38	55.0	Hungary	82	47.8	Botswana	126	40.6	Iran	170	30.2
Argentina	39	54.4	Mexico	83	47.3	Benin	127	40.6	Singapore	171	30.1
Lithuania	40	54.4	Serbia	84	47.1	Morocco	128	40.3	China	172	29.8
Tanzania	41	54.3	Rwanda	85	47.1	Egypt	129	40.1	Jordan	173	27.1
Liberia	42	54.2	Greece	86	46.9	Cuba	130	39.9	Hong Kong	174	23.9
Zimbabwe	43	54.1	Togo	87	46.7	Senegal	131	39.5	West Bank and Gaza	175	19.9
Nicaragua	44	53.6	Saudi Arabia	88	46.6	Kazakhstan	132	39.4	Bahrain	176	18.7

Summary Sustainable Natural Competitive Capital Management Capital Governance Social Capital Spotlight Data

Social Capital Sub-Index

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
Denmark	1	63.1	Lithuania	45	47.6	Peru	89	40.3	Zambia	133	34.8
Luxembourg	2	62.6	Greenland	46	47.5	Albania	90	40.0	Guyana	134	34.2
Iceland	3	62.1	Bulgaria	47	47.5	Thailand	91	40.0	, Mauritania	135	34.2
Finland	4	60.0	Nepal	48	47.4	India	92	39.7	Tanzania	136	33.8
Netherlands	5	59.7	Hungary	49	47.3	Bangladesh	93	39.7	Burundi	137	33.5
Norway	6	58.8	Kazakhstan	50	47.2	Indonesia	94	39.5	Cameroon	138	33.5
Sweden	7	58.0	United Kingdom	51	46.9	Bahamas	95	39.3	Comoros	139	33.4
Germany	8	57.3	Saudi Arabia	52	46.7	Syria	96	39.2	Boliv ia	140	33.4
Qatar	9	57.2	Italy	53	46.6	Panama	97	39.0	Uganda	141	33.3
Switzerland	10	57.2	Belarus	54	46.5	Sierra Leone	98	39.0	Guatemala	142	33.1
Austria	11	56.6	Bosnia and Herzegov in	55	46.4	Nicaragua	99	39.0	Chad	143	33.1
Ireland	12	55.6	Argentina	56	46.3	USA	100	38.9	Gabon	144	33.1
Japan	13	55.3	Israel	57	46.2	Laos	101	38.8	Chile	145	32.8
Belgium	14	55.2	Timor-Leste	58	46.1	Liberia	102	38.7	Guinea-Bissau	146	32.7
Spain	15	55.1	Malta	59	46.0	Philippines	103	38.4	Togo	147	32.6
Kuwait	16	55.0	Uruguay	60	45.2	Paraguay	104	38.2	Djibouti	148	32.4
Slov enia	17	54.5	Moldov a	61	45.1	Papua New Guinea	105	38.2	Rwanda	149	32.2
Poland	18	53.0	Ecuador	62	44.4	Sri Lanka	106	37.9	Namibia	150	32.0
Cyprus	19	52.6	Dominica	63	44.4	Niger	107	37.9	Angola	151	31.9
Croatia	20	52.6	Latvia	64	44.3	Mozambique	108	37.5	Kenya	152	31.9
Oman	21	52.4	Malaysia	65	44.3	Pakistan	109	37.5	Haiti	153	31.8
Czech Republic	22	52.3	Costa Rica	66	44.3	Venezuela	110	37.5	Iraq	154	31.7
Romania	23	51.9	China	67	44.0	Burkina Faso	111	37.3	Guinea	155	31.5
Kosovo	24	51.7	Macedonia	68	44.0	Trinidad and Tobago	112	37.1	Gambia	156	30.9
France	25	51.7	Seychelles	69	43.6	Georgia	113	37.1	Cote d'Iv oire	157	30.8
Serbia	26	50.8	Kyrgistan	70	43.6	West Bank and Gaza	114	37.1	Iran	158	30.4
Australia	27	50.7	Libya	71	43.4	Belize	115	37.0	South Sudan	159	30.2
Brunei	28	50.3	Algeria	72	43.4	Ghana	116	37.0	Zimbabwe	160	30.1
New Zealand	29	50.2	Bhutan	73	43.0	Benin	117	36.9	Lesotho	161	29.2
Singapore	30	50.2	Turkey	74	42.5	Malawi	118	36.8	Honduras	162	28.8
South Korea	31	50.1	Ukraine	75	42.4	El Salv ador	119	36.3	Yemen	163	28.3
Slov akia	32	50.0	North Korea	76	42.3	Afghanistan	120	36.3	Botswana	164	28.2
Maldiv es	33	49.7	Greece	77	42.0	Russia	121	36.2	Equatorial Guinea	165	28.1
Canada	34	49.4	Cuba	78	41.9	Bahrain	122	36.0	Micronesia	166	27.8
Tajikistan	35	49.2	Azerbaijan	79	41.9	Madagascar	123	36.0	Sudan	167	27.8
Uzbekistan	36	49.0	Mexico	80	41.8	Burma	124	35.8	Eritrea	168	27.3
Estonia	37	48.9	Egypt	81	41.5	Dominican Republic	125	35.6	Democratic Republic c	169	26.3
Lebanon	38	48.9	Suriname	82	41.4	Colombia	126	35.4	Somalia	170	26.3
Montenegro	39	48.6	Jamaica	83	41.3	Mauritius	127	35.3	Fiji	171	26.0
Mongolia	40	48.6	Turkmenistan	84	40.9	South Africa	128	35.1	Nigeria	172	25.7
Portugal	41	48.4	Brazil	85	40.8	Cambodia	129	35.0	Republic of Congo	173	24.9
Armenia	42	48.4	Vietnam	86	40.8	Morocco	130	35.0	Central African Republ	174	24.9
Jordan	43	48.3	Tunisia	87	40.7	Ethiopia	131	35.0	Swaziland	175	21.5
United Arab Emirates	44	47.6	Senegal	88	40.5	Mali	132	34.8	Hong Kong	176	20.6

Summary Sustainable Natural Competitive Capital Management Capital Governance Social Capital Spotlight Data

Intellectual Capital Sub-Index

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
South Korea	1	75.7	Spain	45	48.1	Algeria	89	37.2	Syria	133	26.7
China	2	66.3	Kazakhstan	46	48.0	Kyrgistan	90	36.6	Lesotho	134	26.5
Singapore	3	66.1	Kosovo	47	47.2	Sri Lanka	91	36.5	Ethiopia	135	26.3
Japan	4	64.8	Slov akia	48	47.0	Albania	92	36.5	Haiti	136	26.3
Germany	5	64.6	Croatia	49	46.6	Qatar	93	36.4	Nicaragua	137	25.9
Slov enia	6	63.0	Greenland	50	46.6	Guyana	94	36.1	Malawi	138	25.7
Brunei	7	62.0	Greece	51	46.5	Suriname	95	36.0	Gabon	139	25.7
Luxembourg	8	60.2	Cyprus	52	46.5	Kenya	96	36.0	Cameroon	140	25.1
Israel	9	59.7	Turkey	53	45.7	Kuwait	97	35.9	Swaziland	141	25.1
Sweden	10	59.7	Mongolia	54	45.7	Cuba	98	35.8	Liberia	142	24.9
Finland	11	58.6	Belize	55	45.5	Nepal	99	35.6	Equatorial Guinea	143	24.7
Czech Republic	12	58.2	Ukraine	56	44.6	Ghana	100	35.2	Namibia	144	24.2
USA	13	58.2	Colombia	57	44.3	Azerbaijan	101	34.5	Iraq	145	24.1
Denmark	14	58.1	Bulgaria	58	44.2	Bahrain	102	34.4	Mali	146	24.0
Netherlands	15	57.0	Mexico	59	43.9	North Korea	103	33.7	Mauritania	147	24.0
France	16	56.9	Dominica	60	43.8	United Arab Emirates	104	32.9	Uganda	148	23.5
Iceland	17	56.6	Australia	61	43.8	Egypt	105	32.8	Togo	149	23.3
Norway	18	56.6	West Bank and Gaza	62	43.6	Libya	106	32.4	South Sudan	150	23.0
Saudi Arabia	19	56.3	Jamaica	63	43.3	Dominican Republic	107	32.4	Somalia	151	22.4
Switzerland	20	54.8	Serbia	64	43.2	Botswana	108	32.1	Bangladesh	152	22.1
United Kingdom	21	54.7	Brazil	65	42.5	Fiji	109	32.1	Guinea-Bissau	153	21.9
Belarus	22	54.7	Moldov a	66	42.1	Paraguay	110	31.8	Mozambique	154	21.6
Montenegro	23	54.6	Jordan	67	41.8	Tajikistan	111	31.7	Nigeria	155	21.5
Malaysia	24	54.1	Mauritius	68	41.6	Morocco	112	31.7	Zambia	156	21.4
Ireland	25	54.0	Peru	69	41.6	Rwanda	113	31.2	Niger	157	20.9
Poland	26	53.5	Panama	70	41.6	Micronesia	114	31.2	Cote d'Iv oire	158	20.8
Austria	27	53.3	Lebanon	71	41.5	India	115	30.8	Burkina Faso	159	20.5
Lithuania	28	52.9	South Africa	72	41.4	Bosnia and Herzegov in	116	30.7	Djibouti	160	20.2
Belgium	29	52.8	Indonesia	73	41.1	Burma	117	30.5	Sudan	161	19.8
Portugal	30	52.5	Argentina	74	41.0	Macedonia	118	30.0	Papua New Guinea	162	19.5
Estonia	31	51.4	Seychelles	75	41.0	Laos	119	29.9	Central African Repub	163	19.5
Hungary	32	51.3	Chile	76	40.3	Boliv ia	120	29.8	Sierra Leone	164	19.3
Costa Rica	33	50.9	Romania	77	40.2	Trinidad and Tobago	121	29.7	Zimbabwe	165	19.3
Iran	34	50.2	Turkmenistan	78	40.0	Cambodia	122	29.6	Afghanistan	166	19.1
Canada	35	50.0	Uruguay	79	39.7	Tanzania	123	29.6	Madagascar	167	18.8
New Zealand	36	49.9	Georgia	80	39.5	Senegal	124	29.0	Democratic Republic o	168	18.3
Malta	37	49.7	Venezuela	81	39.2	Republic of Congo	125	29.0	Eritrea	169	18.2
Russia	38	49.4	Maldiv es	82	39.0	Comoros	126	28.1	Gambia	170	17.9
Armenia	39	49.3	Uzbekistan	83	38.5	Benin	127	28.1	Angola	171	17.7
Italy	40	48.9	Timor-Leste	84	38.4	Honduras	128	27.9	Yemen	172	17.0
Latvia	41	48.9	Thailand	85	38.4	Bhutan	129	27.9	Chad	173	16.5
Hong Kong	42	48.6	Vietnam	86	38.3	El Salv ador	130	27.7	Guinea	174	16.3
Tunisia	43	48.6	Bahamas	87	37.7	Philippines	131	27.5	Burundi	175	16.1
Oman	44	48.4	Ecuador	88	37.5	Guatemala	132	27.2	Pakistan	176	11.0

Summary Sustainable Natural Capital Management Intellectual Capital Spotlight Data

Resource Management Sub-Index

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
Guatemala	1	55.8	Bangladesh	45	Score	Peru	89	37.8	Egypt	133	33.5
El Salv ador	2	52.8	Denmark	46	55.8	South Africa	90	37.7	Botswana	134	33.4
Nepal	3	50.7	Senegal	47	52.8	Central African Republ	91	37.7	Jordan	135	33.4
Belize	4	50.5	Ghana	48	50.7	Australia	92	37.7	Algeria	136	33.3
Ethiopia	5	50.2	Paraguay	49	50.5	Indonesia	93	37.6	USA	137	33.0
Costa Rica	6	49.8	Colombia	50	50.2	West Bank and Gaza	94	37.6	Qatar	138	32.7
Togo	7	49.6	Romania	51	49.8	Масао	95	37.5	Trinidad and Tobago	139	32.6
Nicaragua	8	49.5	Austria	52	49.6	Hungary	96	37.4	Seychelles	140	32.6
Tajikistan	9	49.4	Canada	53	49.5	Burundi	97	37.3	Belarus	141	32.6
Cambodia	10	49.0	France	54	49.4	Georgia	98	37.3	Niger	142	32.5
Bolivia	11	48.5	Cameroon	55	49.0	United Kingdom	99	37.3	Mexico	143	32.3
Burma	12	48.5	Belgium	56	48.5	Sudan	100	37.2	Morocco	144	32.0
Tanzania	13	48.5	Switzerland	57	48.5	Madagascar	101	37.1	Ukraine	145	31.7
Nigeria	14	47.9	Portugal	58	48.5	Latvia	102	37.0	Cuba	146	31.7
Kenya	15	47.7	Gabon	59	47.9	Vietnam	103	36.8	Japan	147	31.6
Haiti	16	47.5	Republic of Congo	60	47.7	Tunisia	104	36.8	Czech Republic	148	31.5
Papua New Guinea	17	47.5	Mali	61	47.5	Ecuador	105	36.7	China	149	31.5
Iceland	18	47.5	Angola	62	47.5	Burkina Faso	106	36.7	Argentina	150	31.3
Zambia	19	45.5	Kyrgistan	63	47.5	Comoros	107	36.4	Djibouti	151	31.3
Mozambique	20	45.4	Slov akia	64	45.5	Mauritius	108	36.3	Hong Kong	152	31.2
Democratic Republic c	21	45.1	Rwanda	65	45.4	Malta	109	36.3	Kosovo	153	31.0
Uzbekistan	22	44.9	Azerbaijan	66	45.1	Fiji	110	36.1	Somalia	154	30.7
Ireland	23	44.9	Lesotho	67	44.9	Dominican Republic	111	36.0	South Sudan	155	30.7
Cote d'Iv oire	24	44.3	Timor-Leste	68	44.9	Croatia	112	35.9	United Arab Emirates	156	30.6
Dominica	25	44.2	Brazil	69	44.3	Poland	113	35.7	Russia	157	30.5
Lithuania	26	44.2	Sweden	70	44.2	Netherlands	114	35.5	Bahamas	158	30.3
Benin	27	43.8	Sierra Leone	71	44.2	Panama	115	35.5	Mongolia	159	30.3
Zimbabwe	28	43.7	Honduras	72	43.8	Bosnia and Herzegov in	116	35.4	Israel	160	30.1
Laos	29	43.7	Uganda	73	43.7	Norway	117	35.4	Lebanon	161	29.9
Jamaica	30	43.6	Suriname	74	43.7	Guinea	118	35.3	Bulgaria	162	29.6
New Zealand	31	43.5	Equatorial Guinea	75	43.6	Thailand	119	35.0	Serbia	163	28.8
Uruguay	32	43.2	Afghanistan	76	43.5	Syria	120	34.9	Brunei	164	28.7
Finland	33	42.9	Sri Lanka	77	43.2	Singapore	121	34.8	Bahrain	165	28.7
Bhutan	34	42.3	Greenland	78	42.9	India	122	34.8	Malaysia	166	28.6
Philippines	35	42.1	Chad	79	42.3	Swaziland	123	34.7	Mauritania	167	28.4
Luxembourg	36	41.8	Greece	80	42.1	Gambia	124	34.4	Maldives	168	28.2
Spain	37	41.7	Venezuela	81	41.8	Guinea-Bissau	125	34.3	Turkey	169	28.1
Guyana	38	41.5	Germany	82	41.7	Malawi	126	34.3	Saudi Arabia	170	27.9
Italy	39	41.4	Albania	83	41.5	Slov enia	127	34.0	Iran	171	27.8
Eritrea	40	41.3	Liberia	84	41.4	Macedonia	128	33.9	Montenegro	172	27.8
Moldova	41	41.2	Cyprus	85	41.3	Turkmenistan	129	33.9	Kazakhstan	173	26.4
Namibia	42	41.1	Chile	86	41.2	Armenia	130	33.8	Oman	174	24.4
Yemen	43	41.0	Estonia	87	41.1	Iraq	131	33.8	Kuwait	175	22.5
North Korea	44	40.9	Pakistan	88	41.0	Libya	132	33.7	South Korea	176	22.3

Summary Sustainable Competitive Capital Management Intellectual Capital Governance Social Capital Spotlight Data

Governance Sub-Index

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
China	1	70.0	Bolivia	45	51.1	Ireland	89	45.6	M acedonia	133	40.8
Japan	2	69.4	Sweden	47	51.0	Morocco	90	45.4	Kenya	134	40.7
Indonesia	3	63.8	Italy	48	50.7	Republic of Congo	91	45.2	Zimbabwe	135	40.5
Uruguay	4	60.8	Ecuador	49	50.5	Hungary	92	44.9	Greece	136	40.3
Kazakhstan	5	60.0	lacel	50	50.3	Tunisia	93	44.8	Trinidad and Tobago	137	40.2
Germany	6	59.1	Gabon	51	50.2	Bulgaria	94	44.8	Malta	139	39.8
Brazil	7	58.4	Burma	52	50.1	Benin	95	44.7	Maldives	138	39.8
Russia	8	57.7	Canada	53	50.0	Suriname	100	44.5	Afghanistan	141	39.4
Chile	9	57.2	Cuba	54	49.8	Greenland	96	44.6	Djib outi	140	39.5
Argentina	10	56.6	Kuwait	55	49.8	M ozambique	98	44.6	Jordan	145	39.1
Singapore	12	56.0	Nigeria	56	49.7	Paraguay	97	44.6	Chad	144	39.1
Norway	11	56.0	Venezuela	57	49.6	West Bank and Gaza	101	44.5	Montenegro	142	39.1
Iceland	13	55.9	Bhutan	58	49.4	Dominica	99	44.5	Jamaica	143	39.1
Switzerland	15	55.2	Nepal	59	49.3	United Kingdom	102	44.3	Kosovo	146	38.8
Mauritius	16	54.8	Latvia	60	49.1	Bahrain	104	44.1	Burkina Faso	147	38.6
Oman	17	54.7	Armenia	61	48.6	Belgium	103	44.1	Albania	148	38.5
South Korea	14	55.6	Turkey	62	48.5	Panama	105	43.9	Sudan	149	38.4
Vietnam	18	54.6	Libya	63	48.3	Rwanda	106	43.8	Eritrea	150	38.0
Thailand	19	54.4	Slovakia	64	48.2	North Korea	107	43.5	Mauritania	151	37.9
Mongolia	20	54.3	Luxembourg	65	48.2	Equatorial Guinea	108	43.5	Guinea	152	37.9
India	21	54.2	Finland	66	47.9	Portugal	109	43.3	Bahamas	153	37.8
Austra lia	22	53.7	Egypt	67	47.9	Angola	110	43.2	Gambia	154	37.7
Estonia	24	53.1	Pakistan	68	47.8	Laos	111	42.9	Tajikistan	155	37.6
Ghana	23	53.1	Sri Lanka	69	47.7	Cyprus	112	42.8	Fiji	156	37.0
M alaysia	26	52.8	United Arab Emirates	70	47.7	Swaziland	115	42.6	Timor-Leste	157	36.9
Peru	25	52.8	Ukraine	71	47.6	Uganda	113	42.8	Malawi	158	36.8
Georgia	27	52.7	Turkmenistan	72	47.5	Sierra Leone	114	42.7	Cote d'Ivoire	159	36.8
New Zealand	28	52.5	Ethiopia	73	47.5	Democratic Republic o	119	42.5	Burundi	160	36.8
Botswana	29	52.4	Czech Republic	75	47.3	Netherlands	118	42.5	Togo	161	36.5
Bangladesh	30	52.3	Cambodia	74	47.3	Tanzania	117	42.5	Hong Kong	162	35.4
Azerbaijan	31	52.0	Serbia	76	47.2	Lebanon	116	42.5	Belize	163	35.2
USA	33	51.8	Denmark	77	46.9	Lesotho	120	42.5	Nicaragua	165	34.7
Mexico	34	51.8	Guatemala	78	46.8	Papua New Guinea	121	42.4	Somalia	164	34.7
Saudi Arabia	32	51.9	Uzbekistan	79	46.7	Z ambia	122	42.4	Comoros	166	34.5
Poland	35	51.7	Slovenia	80	46.6	Senegal	123	42.3	Madagascar	168	34.1
Belarus	38	51.5	Lithuania	81	46.4	Dominican Republic	124	42.1	South Sudan	167	34.2
Seychelles	36	51.7	Kyrgistan	83	46.3	Cameroon	125	42.1	Syria	169	33.8
Algeria	37	51.6	Namibia	82	46.3	Guyana	126	42.0	Guinea-Bissau	170	32.8
Austria	39	51.4	South Africa	84	46.3	ElSalvador	127	41.5	Mali	171	32.0
Philippines	40	51.4	Iran	85	46.1	Brunei	128	41.4	Honduras	172	30.5
Colombia	41	51.4	Spain	86	46.0	Liberia	129	41.4	Micronesia	173	29.8
France	43	51.3	M oldov a	87	46.0	Iraq	130	41.3	Central African Repub	174	29.5
Qatar	42	51.3	Croatia	88	45.9	Niger	131	41.0	Yemen	175	27.8
Costa Rica	44	51.1	Ireland	89	45.6	Bosnia and Herzegovin	132	41.0	Haiti	176	27.4

Summary Sustainable Natural Management Intellectual Capital Ca

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