the global

Sustainable Competitiveness Index

2016

GROWTH.

Integrated. Inclusive.

About this Report

The Sustainable Competitiveness Report, 5th edition

September 2016

Acknowledgements

The compilation and calculation of this Index would not have been possible without the data and time series made available by the World Bank Indicator database, various UN agencies (UNDP, UNEP, UNICEF, FAO, WHO, WMO, www.data.un.org), the International Monetary Fund (IMF), and other non-governmental organisations (including Transparency International, Reporters without Borders, The New Economics Foundation, The Institute for Economics and Peace, and The Fund For Peace).

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. We have designed and implemented the sustainable management for GS Engineering & Construction (DJSI Global Industry leader 2012), Korea Telecom (DJSI Global Industry Leader 2011-2013, 2015), and Lotte Shopping (DJSI Global Industry Leader 2011-2015).

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Global Sustainable Competitiveness Index

2016

November, 2016

Welcome to The Global Sustainable Competitiveness Index

5th Edition, 2016

Foreword:

Sweden. Norway. Finland. Denmark, Iceland… the top of the 5th edition of the Global Sustainable Competitiveness is a private party of the Scandinavian Nations. What does this mean?

The Global Sustainable Competitiveness Index (GSCI) aims to evaluate the ability to sustain wealth creation. It is based on a competitiveness model that incorporates all pillars of sustained growth and wealth creation: natural capital availability; national governance (the framework in which all players operation - the outcomes of policy directions and investments, e.g. the availability of infrastructure); intellectual capital (innovation and business capabilities); resource efficiency, and social cohesion. The Sustainable Competitiveness Index also integrates data trends over time to allow for a better expression of future development potential. Apart from a few survey-based indicators (such as TI corruption index), all indicators are quantitative, derived from international databases (namely the World Bank). It is therefore free of ideological bias.

There are significant differences between the Sustainable Competitiveness and commonly used metrics for competitiveness – e.g. the WEF's Competitiveness rankings, or more importantly, to international credit ratings. Which raises the question: do credit-ratings really reflect country risks, and the ability of a country to pay back interest over time?

The GSCI is based on integrated, current and future development prospects and risks of nations. The results aim at serving as an alternative to commonly used metrics and measurements of competitiveness, such as the GDP or credit ratings, for academic purposes, policy or investment decisions.

We hope you find this information useful.

SolAbility Sustainable Intelligence

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sustainable competitiveness

1 The Global Sustainable Competitiveness Index

The Global Sustainable Competitiveness Index (GSCI) is an index based on 109 quantitative performance indicators grouped into the 5 pillars of sustainable competitiveness. Data sets have been scored both for the current levels as well as the recent development of the indicator in order to not only reflect current standing, but also development potential. The GSCI aims to evaluate the ability of countries to create and sustain wealth that does not negatively affect the underlying fundament of wealth creation, based on the definition of Sustainable Development. The GSCI integrates all aspects that make economies lasting successful and is not limited commonly used financial factors (such as the GDP, or credit ratings), or other output measurements such as expressed in the WEF's Competitiveness Index.

The 2016 Index is, again, a Scandinavian party: all 5 top spots are occupied by the Scandinavian economies, lead for the first time by Sweden.

1.1 What?

The Sustainable Competitiveness Model

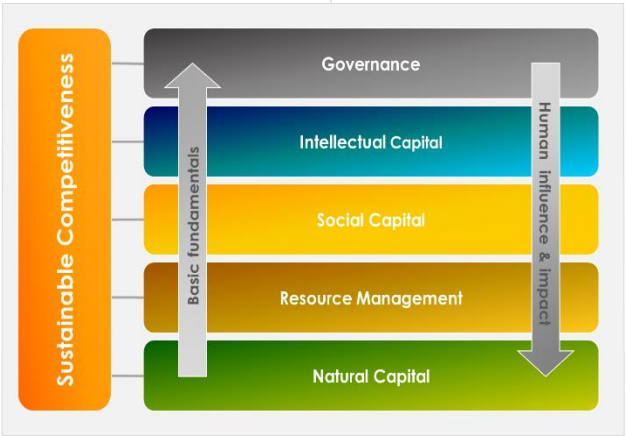
The Sustainable Competitiveness model has been developed with an integrated view of what characterises the current and the future state (i.e. competitiveness) of a nation-economy. It is based on a competitiveness model that incorporates all relevant pillars of sustained growth and wealth creation of a nation – natural capital availability, resource efficiency, social cohesion, government-led development direction, and innovation and business capabilities. The Sustainable Competitiveness Index also integrates data trends over time to allow for a better expression of future development potential.

Sustainable competitiveness is the ability to generate and sustain inclusive wealth without diminishing future capability of sustaining or increasing current wealth levels.

The Pillars of Sustainable Competitiveness

The main pillars of the Sustainable Competitiveness Model 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
- **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.
- **Sustainable Innovation**: the capability of a country to generate wealth and jobs through innovation and value-added industries in the globalised markets



- **Governance Capability**: the ability of governing bodies and authorities to provide a framework for sustained and sustainable wealth generation

Sustainable competitiveness means that current wealth levels are not in danger of being reduced or diminished through over-exploitation of resources (i.e. natural and human resources), the lack of innovative edge required to compete in the globalised markets (i.e. education), or the discrimination, marginalisation or exploitation of segments of a society.

The Global Sustainable Competitiveness Index: **Measuring development, wealth, and prosperity – *inclusively*.**

1.2 Why?

Conventional country comparisons, rankings and ratings are based on economic and/or financial indicators. However, economic and financial indicators - *at best* - reflect current economic success; without looking at or explaining what makes this economic success possible. They also fail to account for current developments – financial and non-financial - that shape future potential or decline.

In addition, economic activities have adverse side-effects on the environment and societies: pollution and depletion of natural resources, climate change, health impacts, inequality and impacts on the socio-cultural fabric of a country. Neglect of these factors can diminish the very basis of current economic output and success measured in conventional ratings.

Economic and financial indicators are therefore insufficient measurements for risk and investment analysis – or credit ratings. In other words: **"competitiveness" in its current meaning and commonly used financial/industrial indicators are an insufficient basis for investment decisions and policy making.**

The Sustainable Competitiveness Index is based on a model that integrates economic and financial indicators with the pillars that make the business success possible in the first place. It is based purely on comparable and measurable performance data collected by recognised international agencies, therefore excluding all subjectivity.

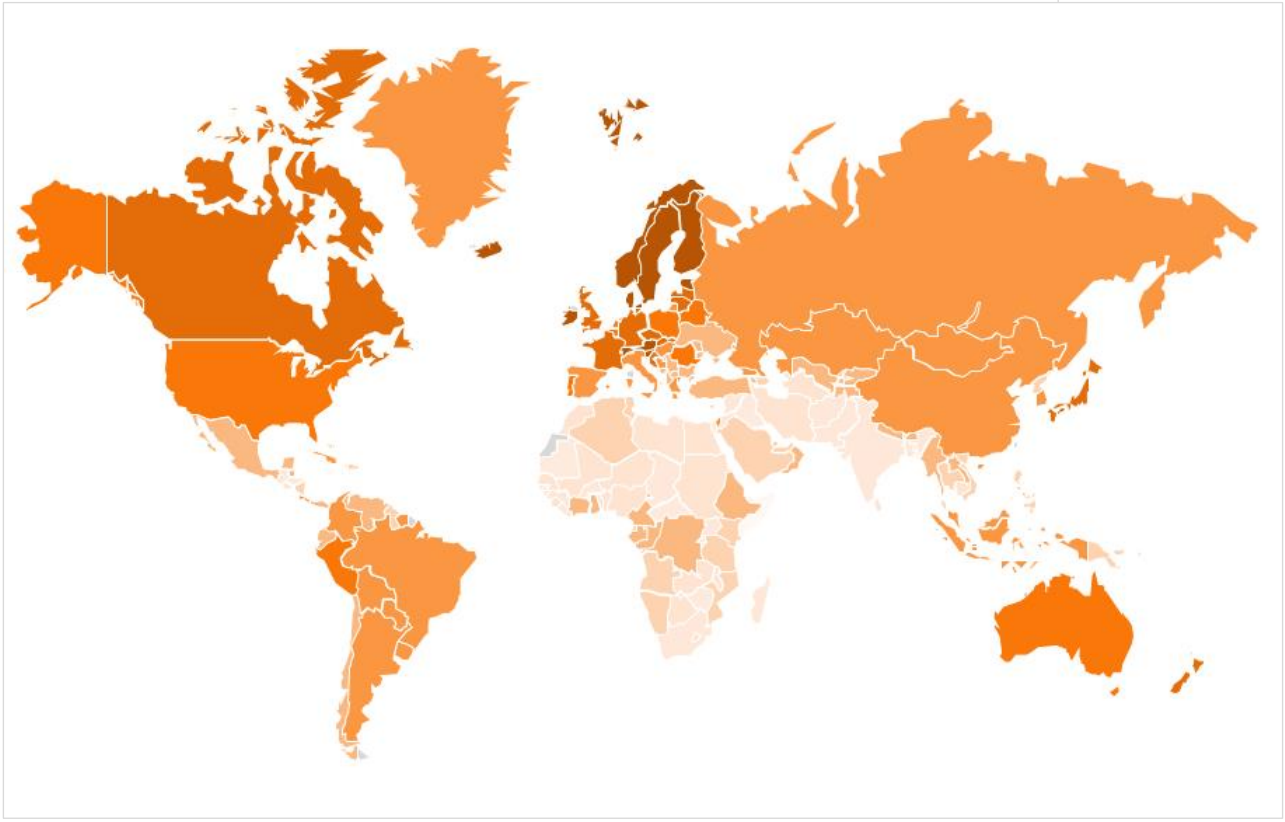
The Sustainable Competitiveness Index was developed to measure the level of development – and the potential for development – of a country-economy inclusively.

1.3 Index 2016: Key Takeaways

The Sustainable Competiveness Ranking 2015 reveals some surprising, and other not-so-surprising results:

- Sweden is leading the Sustainable Competitiveness – followed by the other Scandinavian economies
- The top 20 are dominated by Norther European countries, including the Baltic states and Slovenia
- The only non-European countries in the top 20 are New Zealand (12) and Japan (15)
- Germany ranks 14, the UK 21, and the World's largest economy, the US, is ranked 32. The US ranks particularly low in resource efficiency, but also social cohesion. If not tackled, the combination of the two is likely to undermine the global status of the US in the future
- Of the large emerging economies, China is ranked 37, Brazil 41, Russia 45, and India 152.
- Asian nations (South Korea, Japan, Singapore, and China) lead the Intellectual Capital 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 (Scandinavian) countries, indicating that Social Cohesion is the result of economic growth combined with social consensus

The Sustainable Competitiveness World Map2016



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

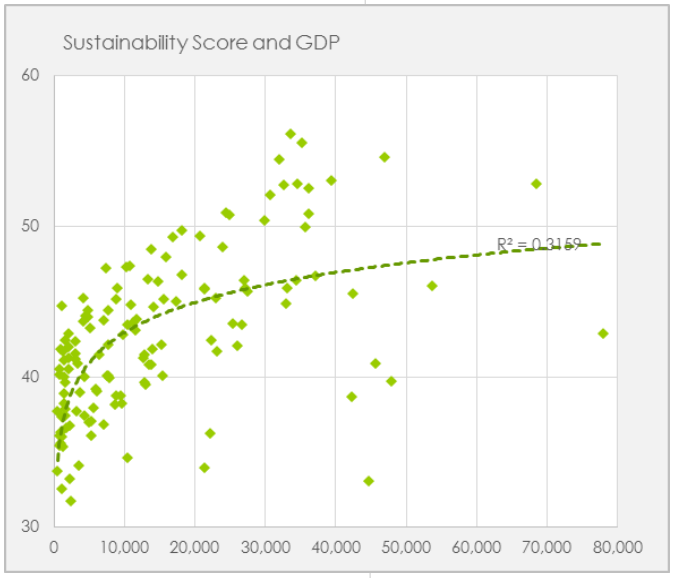
1.4 The 2016 Global Index Rankings

Due to changes in methodology, the results of the 2016 Index cannot be directly compared to 2015 results. 2015 ranking comparison therefor heave been omitted for the purpose of this report. Interested stakeholders can download all previous indexes here.

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
Sweden	1	60.9	Brunei	46	46.5	Mauritius	91	42.4	Egypt	136	38.2
Norway	2	59.4	Kazakhstan	47	46.2	Vietnam	92	42.4	Vanuatu	137	38.2
Finland	3	56.2	Argentina	48	46.2	Tunisia	93	42.2	Morocco	138	38.1
Denmark	4	56.0	Suriname	49	45.8	Namibia	94	42.2	Turkmenistan	139	38.0
Iceland	5	56.0	Bolivia	50	45.8	Tanzania	95	42.2	Togo	140	37.9
Slovenia	6	54.8	Cuba	51	45.8	Kuwait	96	42.1	Samoa	141	37.8
Switzerland	7	54.4	Mongolia	52	45.3	Philippines	97	42.0	Jamaica	142	37.8
Ireland	8	53.9	Greece	53	45.2	Mozambique	98	42.0	Bahrain	143	37.6
Luxembourg	9	53.8	Malta	54	45.2	Papua New Guinea	99	41.7	Malawi	144	37.6
Austria	10	53.8	Israel	55	45.1	Thailand	100	41.6	Sudan	145	37.5
Estonia	11	53.6	Bosnia and Herzegovin	56	45.1	United Arab Emirates	101	41.5	Guinea-Bissau	146	37.5
New Zealand	12	53.5	Indonesia	57	45.0	Dominica	102	41.5	Iran	147	37.5
Liechtenstein	13	52.4	Bhutan	58	45.0	Dominican Republic	103	41.4	Swaziland	148	37.5
Germany	14	52.1	Bulgaria	59	44.8	Nicaragua	104	41.4	Guatemala	149	37.3
Japan	15	52.0	Singapore	60	44.7	Cyprus	105	41.2	Rwanda	150	37.1
Slovakia	16	51.8	Republic of Congo	61	44.7	Seychelles	106	41.1	Comoros	151	37.0
France	17	51.8	Chile	62	44.6	Kenya	107	40.9	India	152	36.9
Lithuania	18	51.8	Uzbekistan	63	44.6	Equatorial Guinea	108	40.7	Solomon Islands	153	36.9
Croatia	19	51.0	Ukraine	64	44.6	Bahamas	109	40.6	Guinea	154	36.9
Latvia	20	51.0	Burma	65	44.4	Guyana	110	40.6	Bangladesh	155	36.9
United Kingdom	21	51.0	Kyrgistan	66	44.3	Trinidad and Tobago	111	40.5	Burkina Faso	156	36.8
Canada	22	50.8	Laos	67	44.2	Algeria	112	40.4	Madagascar	157	36.7
Czech Republic	23	50.8	Qatar	68	44.2	Saudi Arabia	113	40.4	South Africa	158	36.5
Belarus	24	49.2	Mexico	69	44.2	Angola	114	40.3	Honduras	159	36.5
Poland	25	49.2	Oman	70	44.1	Azerbaijan	115	40.1	Gambia	160	36.3
Australia	26	49.1	Serbia	71	44.0	Maldives	116	40.1	Liberia	161	36.2
Portugal	27	48.9	Ghana	72	44.0	Cape Verde	117	40.0	Uganda	162	36.2
Belgium	28	48.4	Panama	73	43.9	Fiji	118	40.0	Chad	163	35.7
Netherlands	29	48.2	Venezuela	74	43.9	El Salvador	119	39.8	Syria	164	35.5
Peru	30	48.0	Armenia	75	43.8	Zambia	120	39.8	Pakistan	165	35.3
Romania	31	47.7	Albania	76	43.8	Lebanon	121	39.8	Afghanistan	166	35.1
USA	32	47.6	Nepal	77	43.6	St. Kitts and Nevis	122	39.6	Sao Tome and Principe	167	34.3
Malaysia	33	47.4	Belize	78	43.6	Sierra Leone	123	39.5	Djibouti	168	34.0
Costa Rica	34	47.4	Democratic Republic o	79	43.5	Nigeria	124	39.3	Central African Republ	169	33.6
Hungary	35	47.3	Moldova	80	43.5	Cambodia	125	39.2	Iraq	170	33.4
Uruguay	36	47.3	Cameroon	81	43.4	Senegal	126	39.2	Barbados	171	33.3
China	37	47.2	Timor-Leste	82	43.4	Sri Lanka	127	39.0	Zimbabwe	172	33.2
Georgia	38	47.1	Gabon	83	43.3	Libya	128	39.0	Mauritania	173	33.1
Spain	39	46.9	Ethiopia	84	43.2	Botswana	129	38.9	Burundi	174	32.8
South Korea	40	46.9	Macedonia	85	43.2	Lesotho	130	38.9	Grenada	175	32.8
Brazil	41	46.9	Montenegro	86	43.1	Benin	131	38.7	Eritrea	176	32.7
Paraguay	42	46.7	Ecuador	87	43.1	Mali	132	38.6	St. Lucia	177	32.6
Colombia	43	46.7	Turkey	88	43.0	Tonga	133	38.6	Haiti	178	32.6
Italy	44	46.6	Tajikistan	89	42.7	Jordan	134	38.5	Antigua and Barbuda	179	31.0
Russia	45	46.6	Cote d'Ivoire	90	42.5	Niger	135	38.3	Yemen	180	28.6

1.5 Higher sustainability equals higher wealth

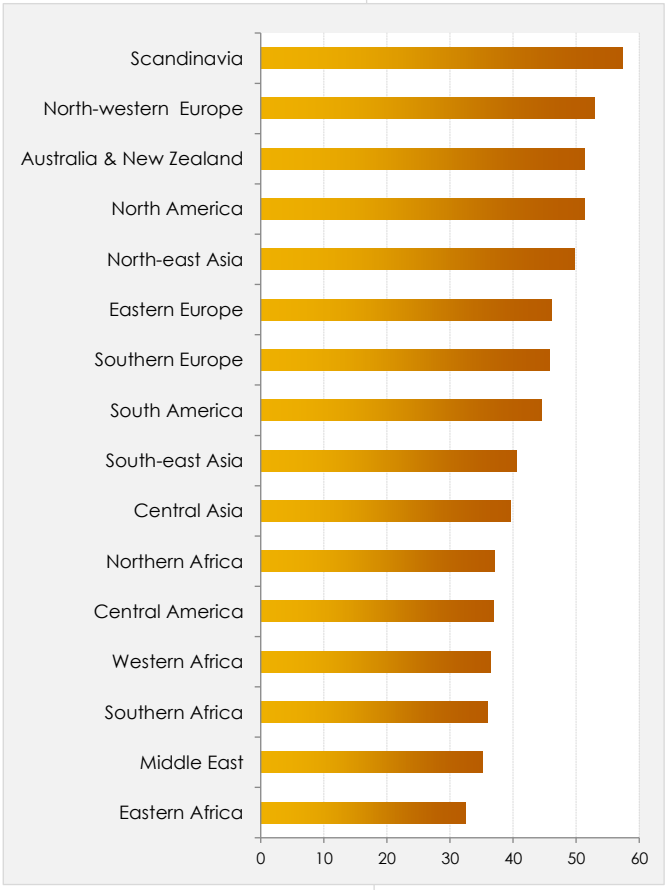
Leading nations in the Sustainable Competitiveness ranking are mostly high-income countries, suggesting a certain correlation between Sustainable Competitiveness score and GDP per capita or income levels (high income = high sustainability). The same is true when visualizing average deviations of GDP per capita and the sustainable competitiveness score.



GDP/capita and sustainable competitiveness

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 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 of sustainable competitiveness scores

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 a 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.

sustainable competitiveness

vs

conventional competitiveness

2 Conventional vs Sustainable Competitiveness

2.1 Sovereign Bond Ratings & Sustainability

The sovereign risk rating of a country – commonly referred to as credit rating - determines the level of interest a country has to pay for loans and credits. It is therefore a very important parameter for every economy – it defines the level of capital cost for new investments, whatever the nature of those investment may be. The credit rating also affects the risks an investor is willing to take in overseas investments. Sovereign risk ratings are calculated by a number of rating agencies, most notable by the "three sisters": Moody's S&P, and Fitch. The ratings of these three therefore have an immense impact on the cost of capital of a specific country.

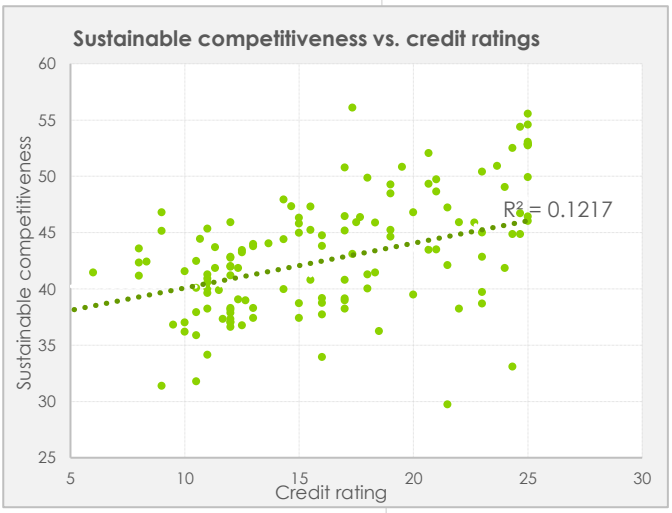
Sovereign risks are calculated based on a mix of economic, political and financial risks – i.e. current risks that, like GDP calculations, do not take into account the framework that enables and defines the current situation, i.e. the fundament of what the rating is trying to reflect. They do not look at or consider the wider environment – the ability and motivation of the workforce, the health and well-being and the social fabric of a society, the physical environment (natural and man-made) that have caused the current situation. Credit ratings describe symptoms, they do not look at the root causes. It is therefore questionable whether credit ratings truly reflect investor risks of investing in a specific country.

So what if sovereign bonds were rated against sustainability?

In order to test currently applied credit ratings, the scores of the GSCI have been converted to ratings equivalent to credit ratings - a sustainable credit rating. The generated grades are compared to the average credit rating of Moody's, S&P, and Fitch.

While there seems to be a slight initial correlation (higher sustainability equals positive credit rating) on first sight, there are too many exceptions to the rules to be considered correlating. For too many economies, in particular of developed countries, high credit rating is not reflected in high sustainable competitiveness score.

In the asset management world, it now has become near-standard to integrate some form of "ESG" into investment risk/opportunity evaluation. However, it seems the credit rating agencies are lagging behind the financial industry in this particular aspect: current credit ratings do exclude ESG risks and therefore do not cover all investor risks. It is high time that credit rating agencies take into account "intangibles" in their credit risk calculation. Credit ratings have to reflect the underlying factors that define the future development and capability of a country to generate and sustain wealth. It is high time that credit ratings include sustainability in their risk calculations.



Sustainable competitiveness scores plotted against sovereign credit ratings (average of Moody's, S&P, Fitch) show rather limited correlation, indicating insufficient coverage of sustainability risks in current risk calculation methodologies

Sustainability-adjusted credit ratings

Some countries would see significant credit ratings upgrades, other downgrades when comparing the current credit rating with a fictional credit rating based on sustainable competitiveness. Based on this comparison, we have calculated a fictional sustainability-adjusted credit rating. The US, the UK and Australia would be significantly downgraded, while countries that have low credit ratings mostly due to political reasons (Greece, Argentina), would receive more favourable ratings (see table for comparison of selected countries).

However, what is most interesting is the World map of upgrades and downgrades of individual countries based on a fictional sustainability-adjusted credit rating (see World map below): oil-rich Middle Eastern countries (Saudi Arabia, Kuwait, etc.) would be significantly downgraded several levels, while most countries in South America, Eastern Europe and Central Africa would receive a credit rating upgrade.

Country	Credit rating (average of Moody's, S&P; Fitch)	GSCI rating	Level Difference	Sustainability-adjusted rating	Level difference
Argentina	CCC+	A−	10	BB	5
Australia	AAA	AA−	-3	AA+	-1
Austria	AA+	AAA	1	AAA	1
Bolivia	BB	A−	5	BBB−	2
Brazil	BB+	A	5	BBB+	3
Cambodia	B	B+	1	B+	1
Canada	AAA	AA+	-1	AAA	0
Chile	AA−	BBB+	-4	A	-2
China	AA−	A	-2	A+	-1
Denmark	AAA	AAA	0	AAA	0
Germany	AAA	AAA	0	AAA	0
Greece	CCC	BBB+	10	BB−	5
Iceland	BBB+	AAA	7	A+	3
India	BBB−	B−	-8	BB−	-3
Indonesia	BBB−	BBB+	3	BBB	2
Italy	BBB+	A	3	A−	2
Japan	A+	AAA	4	AA	2
Kuwait	AA	BB+	-8	A−	-4
Mexico	BBB+	BBB	-1	BBB+	0
Netherlands	AAA	A+	-4	AA	-2
Norway	AAA	AAA	0	AAA	0
Pakistan	B	CCC	-3	CCC+	-2
Portugal	BB+	AA−	7	A−	4
Russia	BB+	A	5	BBB+	3
Saudi Arabia	AA	BB−	-10	BBB+	-5
Sweden	AAA	AAA	0	AAA	0
Switzerland	AAA	AAA	0	AAA	0
United Kingdom	AA+	AA+	0	AA+	0
United States	AAA	A+	-4	AA	-2

Current, sustainability and sustainability-adjusted ratings of selected countries

2.2 WEF Competitiveness vs. Sustainable Competitiveness

Different interpretations of different data sets and surveys put into indexes or rankings can open interesting new perspectives, regardless of the accuracy and real-life relevance of the index. However, real-life relevance and correlations to actual success factors depend on a) the source and reliability of the raw data, and b) - maybe more importantly - the definition of "competitiveness" that underlies a specific index. The definition or understanding of the term "competitiveness" guides the selection of competitiveness indicators and their analysis, i.e. the success factors according the point of view of the publishing organisation or the individuals behind the index.

The most cited Index when it comes to national competitiveness in the **WEF** (World Economic Forum) **Competitiveness Index**. The WEF defines competitiveness "as the set of institutions, policies, and factors that determine the level of productivity of a country". It is further argues that the level of productivity sets the level of prosperity that can be earned by an economy, as well as the rates of return obtained by investments in an economy. Productivity and returns of investments of an economy are considered "the fundamental drivers of its growth rates", leading to "a more competitive economy which is likely to sustain growth." Contrarily to sovereign credit ratings, the WEF's Competitiveness includes some social (mainly related to health care systems) and educational aspects. However, the "sustainability-adjusted" Competitiveness Index which also included limited environmental factors quietly has been shelved in the new 2016-17 edition. This limited approach has three main limitations:

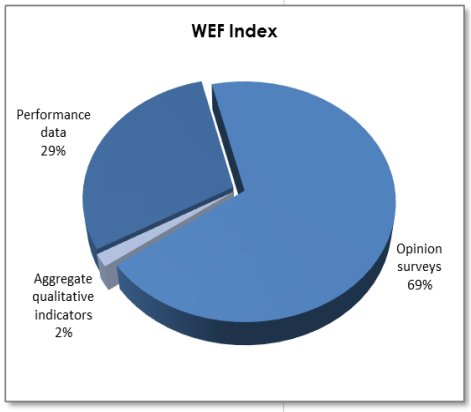
- The focus on economic/financial performance aspects assumes that an economy works within bubble, independent of its physical environment (i.e. independent of the actual land it is built on)
- It does not take into account the ramifications of current economic activities on the future economic development and wealth creation capabilities
- It is based on a momentary picture in time & does not take into account past & current developments

Through the inclusion of the so-called "non-financial" characteristics of national economies, the Sustainable Competitiveness Index aims at developing a broader picture of competitiveness that incorporates the normally omitted factors, which are essential pillars of an economy that is able to sustain growth and wealth into the future.

The WEF Report aims to "help understand of the key factors that determine economic growth, helps to explain why some countries are more successful than others in raising income levels, (…), and offers an important tool in the formulation of improved economic policies and institutional reforms". These are very noble intentions, indeed. The interesting question is whether this holds true - in particular whether the competitiveness index correlates to actual wealth creation capabilities.

2.2.1 Data sources

An interesting – and often overlooked – characteristic of the WEF rankings is that it is to a large extend based on a survey conducted by the WEF, named the "Executive Opinion Survey". The Global Sustainable Competitiveness Index, on the other hand, is based on measurable performance indicators derived from the World Bank and different UN agencies.

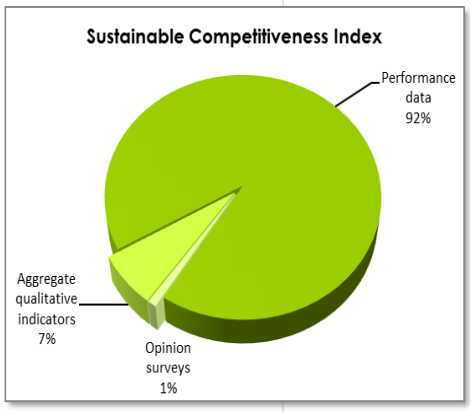


The WEF Index is manly based on perception (survey) of a single and very specific group of individuals

The WEF executive opinion survey is conducted annually with the help of partner organisations across 150 countries amongst 15'000+ respondents. The yearly responses are adjusted using a moving and discounted average of past surveys in order to reduce "sensitivity to the specific point in time when the survey is administered". In addition, answers are adjusted for the economic structure of the country. Target respondents are business leaders from large and small companies in each country.

While the global coverage, computing and data weighting processes seem fairly sophisticated, there remain some question marks to a competitiveness index that is based mainly on perception surveys:

- Do "business executives" opinion's reflect a representative picture or are the biased through their business mind?
  - While "business executives" might have a clear understanding of the business environment and its regulation in their country, do "executives" have the same understanding of services that they perhaps never use, such as public services, public health services, social services, and environmental issues (all of which are part of the survey and basis for the Competitiveness Index)?
  - Is a survey – regardless of whether conducted amongst "executives" or "non-executives" – that is based on individual perceptions rather than on facts - a reliable source to compose a ranking?
  - Surveys always reflect a momentary picture in time – perception can change very quick, and therefore have limited validity into the future



The Global Sustainable Competitiveness Index is based on measurable and comparable performance data collected from reliable sources

The WEF Index and the GSCI are obviously based on two different concepts. The Global Sustainable Competitiveness is based on quantitative and measurable performance indicators in order to exclude, as much as possible, subjectiveness. Considering that a large percentage of the WEF's GCI are based on perception and opinions of leaders, wouldn't it be more accurate to call the resulting ranking a "Competitiveness Perception Index" rather than "Competitiveness Index"?

2.2.2 Indicators

For some years, the WEF published an add-on to its index, the sustainability adjusted Competitiveness Index based on environmental regulation and some performance indicators. However (and sadly), the sustainability-adjusted index has quietly been shelved in the new edition of the index.

The WEF Index is therefore now where it always was - focused on economic and business related indicators.

The WEF index does cover some indicators related to social well-being; mainly relating to availability & quality of health care services.

However, the WEF index completely neglects environmental issues. Also, educational and innovation consideration of the index are based on opinion surveys. Evaluation of school systems and school quality are highly subjective matters, and it is at least questionable whether elite surveys reflect the education and innovation capabilities adequately.

The boxes provide an overview and comparison of the key indicator sectors used for the Global Sustainable Competitiveness Index and the WEF Index.

Pillar	Criteria	WEF Global Competitiveness Index		Sustainable Competitiveness Index	
		Number	Coverage	Number	Coverage
Natural capital	Water	0	-	4	Availability of freshwater resources, annual rain volumes & historical trends
	Biodiversity	0	-	4	Forest areas & changes, value of biodiversity, threatened species & historical trends
	Agriculture	0	-	5	Arable land per capita & land area, cereal yield per capita & area, potentially arable land
	Environmental degradation	0	-	4	Arable land under risk of desertification, arable land degradation rate, extreme weather events & historical trends
	Energy	0	-	4	Availability of energy resources (fossil & renewable) and level of depletion
	Minerals	0	-	2	Availability of mineral resources & level of depletion
Resource efficiency	Energy	0	-	5	Energy usage per capita & GDP, energy mix, CO_2 intensity of energy mix
	Climate change	0	-	4	CO_2 emissions per GDP and capita & their historical trends
	Water	0	-	4	Water productivity, freshwater withdrawal rate and their historical trends
	Waste	0	-	2	Volumes of ordinary and hazardous waste per capita and GDP & historical trends
	Pollution	0	-	2	Particle mater pollution, SO_2 emissions & tehir historical trends
Social cohesion	Health	8	Prevalence and business cost of Malaria, Tuberculosis, and HIV, infant mortality, life expectancy	7	Child mortality, availability of nurses, doctors and hospital beds, affordability of medical services and drugs, overweight rates
	Social stability	0		4	GINI coefficient, income quintile rate, life satisfaction perception index, gender equality index, and historical trends
	Public services	0		1	Stakeholder perception of quality of public services
	Crime	3	Cost of crime to businesses	4	Theft cases, homicide rats, prison population, safety perception index
	Freedom	0	-	2	Press freedom index, peace index (absence of violent conflicts and aggression)

Pillar	Criteria	WEF Global Competitiveness Index		Sustainable Competitiveness Index	
		Number	Coverage	Number	Coverage
Sustainable innovation& economics	Education	10	Primary, secondary and tertiary enrolment, internet access in schools, quality of education systems and on-the-job education as perceived by "executives"	6	Primary, secondary and tertiary enrolment & completion rate and gender equality, historical trends
	Infrastructure	15	Air kilometers Internet, fixed line mobile communication usage Perception of quality of roads, ports, air transport infrastructure and electricity supply	5	Infrastructure investments Availability of roads and railways per area & population Internet & mobile communication availability
	Business environment	31	Government regulation, legal framework, government support, accountability, shareholder and investor protection, Market maturity and internal competitiveness, local supplier base, depth of internal value optimisation, export/import regulations and tariffs (all as perceived by "executives"), bribery payments	3	Ease of doing business index, bribery payments, Transparency International Corruption Index
	Innovation	10	Property rights & protection, quality and availability of research personal and institutes, spending on R&D (all as perceived by "executives"), patent applications per capita	7	R&D expenditure (per capita & GDP), R&D personnel, rate of engineering students, patent applications (per capita & GDP), value added through high-tech manufacturing
	Economic indicators	9	Tax rate, start-up requirements, FDI, GNI, Inflation, credit rating, domestic and foreigner market size	7	GNI growth rates, new business registrations, new trademark applications (per capita & GDP), obesity rates, health of balance between different sectors (agriculture, manufacturing, services), financial austerity crises management
	Governments	9	Public trust in politicians, diversion of funds, judicial independence, government miss-spending, transparency all as perceived by "executives") budget balance, debt	0	- Due to the lack of indicators that could measure quality of governments without ideological prejudices, this criteria has been omitted from the SCI
	Labour market	9 (2)	Labour flexibility, hiring/firing cost, taxation, wage flexibility, pay & compensation (all as perceived by "executives"), female labour participation rate (AS-GCI: youth unemployment & vulnerable employment)	3	Unemployment, vulnerable employment, female labour participation rate
	Banking system	6	Soundness of banks, access to, and affordability of, financing and venture capital	1	Bank asset to capital ratio A working banking systems providing financing for infrastructure and business investment as well as to guarantee financial transactions is essential to the functioning and development of a national economy. Unfortunately, there are no indicators that could adequately measure the quality and stability of a banking system
	Financial markets	2	Regulation of securities exchanges, legal rights index	2	Market capitalisation and trading volumes vs real economy figures Stock exchanges and trading of derivative products do not create sustainable value or wealth and are therefore not necessary foundations for national prosperity. Unfortunately, there are no indicators quantify the quality of regulation minimising the danger posed by financial markets to national economie

2.2.3 Index comparison

There are certain similarities, but also striking differences between the rankings of the Sustainable competitiveness Index and the WEF Index. A general observation is that the WEF Index shows a fairly high correlation to current GDP levels – countries with a current high GDP output also rank high on the WEF Index, and vice versa. This correlation is also visible for the GSCI, but to a much lesser extent, and with significant exceptions. For example countries of the Middle East whose output and wealth is based on oil rank (comparably) high on the WEF Index, but rather low on the GSCI. Saudi Arabia, Kuwait and Qatar e.g. are all in the top 20% according to the WEF Index, but in the lower 40s (Qatar & Kuwait) and even 60s (Saudi Arabia) in the GSCI. The same applies for some of the largest economies: the US is ranked 3rd (top 2%) in the WEF Index, but only 32 (top 16%) in the GSCI.

Many developing countries, on the other hand, are ranking significantly higher on the GSCI than compared to the WEF; most likely because the GSCI also takes into account the development potential based on the countries tangible and intangible resources. The same is true for most Eastern European economies, and, in particular, for the Baltic countries.

	Rank			Percentile ranking		
Country	**GSCI**	**WEF**	**+/-**	**GSCI**	**WEF**	**+/-**
Sweden	1	6	+5	1	4	+3
Norway	2	11	+9	1	8	+7
Finland	3	10	+7	2	7	+5
Denmark	4	12	+8	2	9	+7
Iceland	5	27	+22	3	20	+17
Slovenia	6	56	+50	3	41	+38
Switzerland	7	1	-6	4	1	-3
Estonia	11	30	+19	6	22	+16
New Zealand	12	13	+1	7	9	+2
Germany	14	5	-9	8	4	-4
Japan	15	8	-7	8	6	-2
Slovakia	16	-	n/a	9	n/a	n/a
France	17	21	+4	9	15	+6
Lithuania	18	35	+17	10	25	+15
Latvia	20	49	+29	11	36	+25
United Kingdom	21	7	-14	12	5	-7
Canada	22	15	-7	12	11	-1
Czech Republic	23	31	+8	13	22	+9
Poland	25	36	+11	14	26	+12
Australia	26	22	-4	14	16	+2
Portugal	27	46	+19	15	33	+18
Belgium	28	17	-11	16	12	-4
Netherlands	29	4	-25	16	3	-13
USA	32	3	-29	18	2	-16
Costa Rica	34	54	+20	19	39	+20
China	37	28	-9	21	20	-1
Spain	39	32	-7	22	23	+1
South Korea	40	26	-14	22	19	-3
Brazil	41	81	+40	23	59	+36
Italy	44	44	-	24	32	+8
Argentina	48	104	+56	27	75	+48
Bolivia	50	121	+71	28	88	+60
Greece	53	86	+33	29	62	+33
Singapore	60	2	-58	33	1	-32
Qatar	68	18	-50	38	13	-25
Turkey	88	55	-33	49	40	-9
Saudi Arabia	113	29	-84	63	21	-42
India	152	39	-113	84	28	-56

Comparison of GSCI and the WEF Index rankings. Due to the different number of countries in the two indexes, percentile rankings are more meaningful than absolute rankings

Green indicates higher rankings in the GSCI as compared to the WEF; blue lower

The WEF vs Sustainable Competitiveness: Recap

The comparison of methodologies and empirical analysis of correlations with wealth levels and new wealth creation (growth and growth rate changes as measured in GDP or GNI per capital) leads to 4 major observations:

The data sources: the WEF index is based on qualitative opinion surveys ("the executive survey"). While the high global number of respondents should lead to a representative picture, it is questionable whether opinion surveys based on a small bandwidth of the population ("the executives") are a true reflection of the respective quality and/or performance – in particular when it comes to non-business aspects such as quality of public services (education, health, policing), or environmental matters. Reliance on data, on the other hand, would require exact and accurate data, which in turn requires the availability of data and application of streamlined data accounting across all countries – which, at this point in time, cannot be guaranteed for all relevant sustainable performance data.

The selection of indicators: the WEF Competitiveness Index is based on the notion that "competitiveness" is based on economic performance and drivers that enhance economic performance (infrastructure, education, and regulations that affect businesses). In recognition that such economic activities might not be fully sustainable (i.e. not the sole ingredients of competitiveness in the longer term), the WEF has been developing a "sustainable competitiveness" framework. It is sad that – however limited this framework was – that this efforts have been shelved.

High correlation to current GDP: The WEF Competitiveness shows a distinctive correlation to current GDP levels under exclusion of any environmental or equality indicators. The WEF ranking-GDP correlation also holds true in instances where current high GDP levels have been achieved mainly through the exploitation of natural resources (e.g. the fossil-rich states in the Middle East). In other words: the Competitiveness Report is a ranking of past achievements and current wealth of nations. This is not necessarily a sign of competitiveness, i.e. a country's capability to sustain and increase wealth in the future.

Low correlation to new wealth creation (growth and changes of growth rates): empiric analysis of the WEF competitiveness scores and actual growth rates (measured in GDP or GNI) shows little correlation, and even less so to changes in growth rates. The Competitiveness Report aims to identify components of competitiveness and serve as tool for policy making to increase competitiveness, and due to the "brand-value" and international media presence is probably one of the most recognised indexes. However, there is no statistical (empiric) evidence that would support the notion that competitiveness - as defined through the selection of components by the WEF Index - actually lead to new or higher growth. Comparative analysis with the Sustainable Competitiveness Index suggests that full integration of sustainability factors yields a higher correlation to growth and growth changes, i.e. the capability to sustain or create new growth, the definition of future competitiveness.

Of course we believe that Sustainable Competitiveness Index is a better evaluation of a nation-economy…

2.3 Development strategies & sustainable competitiveness

The World is still recovering from the fallout of the financial crisis 2007/2008 (or about to fall into another bust, as some observers suggest. So what is "sustainable competitiveness" in the face of the global current situation look, and what are lessons to be taken away, based on the sustainable competitiveness elements?

- The availability and state of **natural capital** does not affect short-term economic development or recovery – unless the capital in question is oil or other commodities in demand on the global market. Exploitation of natural resources (natural capital) can of course bring short-term economic benefits, but is often accompanied by diminishing the basis of future development (e.g. in the case of forest exploitation)
- **Resource intensity** is cost. The higher the resource efficiency, the higher the competitiveness of an economy. However, resource intensity is not directly linked to short-term economic development. While resource usage is increasing with initial development, efficiency tends to increase with higher development and investments. However, economic decline (as has occurred in Greece since 2010), leads to lower resource consumption.
- **Social capital** is negatively affected by economic decline, while the correlation of development and increasing social capital is less straight-forward. A declining economy leads to fewer financial resources available for social capital aspects (health, community development, integration), and leads to higher criminality as well as individual despair – both of which negatively affect the competitiveness of a nation-economy on the long term.
- There seems to be a fairly direct connection of **Intellectual capital** availability and positive/negative economic development. All countries that have cut investments (including, but not restricted to, innovation, R&D and education), have seen a slower recovery or even further decline since the financial crisis – and vice versa. While it may look sensible at first glance to cut expenditure to reduce deficits, this strategy obviously does not work, because it also cuts the required base to kick-start growth. It is unsustainable competitive, i.e. not sustainable competitive. It also goes to show what sustainable competitiveness means: analysing the likely outcome of measurements before they are implemented – i.e. calculating not only the cuts, but also the cost of cuts. A majority of policy makers these days seem to be blind to the long-term cost of cuts. Unbelievable as that sounds – they do not look ahead.
- The analysis of individual indicators suggests a fairly straightforward connection between the **Governance framework** provided to the economy: countries who cut investments (infrastructure, general investments), countries with a large (uncontrolled) domestic financial investment markets, and a low industrial base have all declined more and recovered slower than countries with higher investments, smaller domestic financial markets and a better industrial base. It also seems straightforward that a steep increase of financial market size in short term seems to be the indication of an imminent burst of a bubble.

Why are ideologies still dictating policy making?

As consultants, we are used to look at different possibilities free of sympathy for a single option. We analyse what works best, is most efficient, and least costly in implementation and maintenance, and base recommendations and tools based on this analysis.

It is shocking that – 27 years after the fall of the Wall (famously declared as the end of history, i.e. the end of ideological fights) - political policy and decision making is more based on ideologies and believes, and not on facts and analysis. Controversial political debates nowadays seem to be even more based on ideologies and/or theories, rather than experiences. Ideological thinking seems to be even more rigid these days than in the days of the Cold War. The debates and discussion on how to deal with the fall-out (let alone the cause) of the financial crises is marred by ideologically driven assumptions. In some circles, questioning the wisdom of the markets or asking about the long-term cost of investment & spending cuts is akin to be outed as a deep-red communist and/or parasite. The other side of the spectrum also seems to be lacking a coherent recipe to manage the changing realities with an over-focus on corporate bashing, and relying on calls for solidarity to deal with the complexity of today's World.

Regardless of what side of the argument the policy is coming from – what is astonishing is the fact that in this modern world, policy decisions are based on ideologies rather than analytics that take into account the wider horizon and past experiences, both successful and unsuccessfully, to find workable efficient solution to whatever the challenge may be. Sustainable competitiveness research suggests

- Not many lessons of 2007/2008 has been implemented. De-regulated financial markets where capital flows in and out, always to the promise of the highest possible short-term return, are a recipe for instability, ceaselessly absorbing huge resources to manage (let alone repair) the damage of bursting small and bigger bubbles in the financial markets caused by over-expectations and over-investments, constantly and negatively affecting all other markets (i.e. real economic activities). A complete decoupling of financial markets and the productive economy is therefore required. Gambling is okay, as long as the bet is not the real economy. The financial markets in their current form are a threat to wealth creation.
- A sound industrial (productive and/or manufacturing) base is required for long-term development and sustainable wealth creation. This in term requires investments – in infrastructure, technology, R&D, innovation, efficiency, education. Of course, throwing money at something per se will not do. Investments have to be conducted and managed wisely, based on proper analysis that foresees all possible implications and side-effects. Sustainable competitiveness analysis.

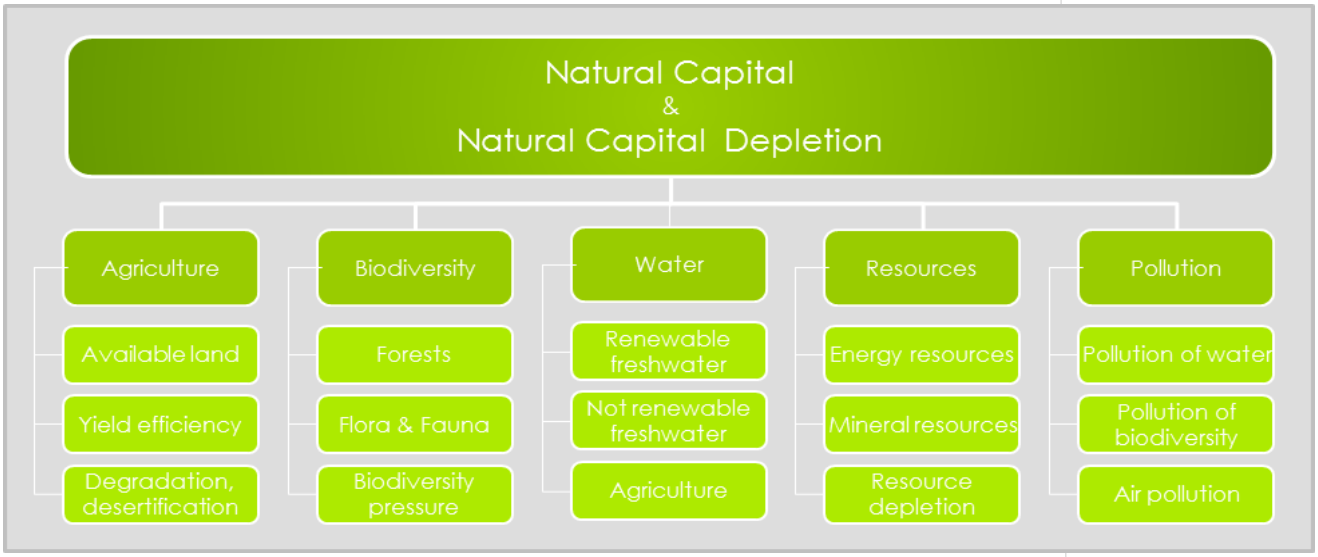
Sometimes it is market tools that are most efficient, sometimes it is incentives, sometimes regulations. Whatever works best – in most cases a combination of the above – should be applied. What we need is more analytics, and less ideology. We don't need theories, and we definitely need less ideologies - we need solutions that work. Analysis, scenario planning and experiences from the past, both successful and unsuccessful, should guide policy making, and not believes, theories and ideologies.

natural capital

3 Natural Capital

The Natural Capital of a country is defined by the natural physical environment. The Natural Capital model incorporates the essence of resources available that 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 are taken into account to reflect the full picture of the available natural capital.

The number of data points related to natural capital available from a variety of sources is nearly endless. The main challenge is 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 the natural capital model below:



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 been taken into account. The combination of these 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, some quantitative scores compiled by UN agencies have been used for certain indicators, such as biodiversity potential, resource depletion, and the ecological footprint.

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

Natural Capital - the neglected fundament

Natural capital is the very basis on which a country is built: its physical environment and conditions. The ability to sustain the existing natural capital 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 capital to sustain the population and the economy.

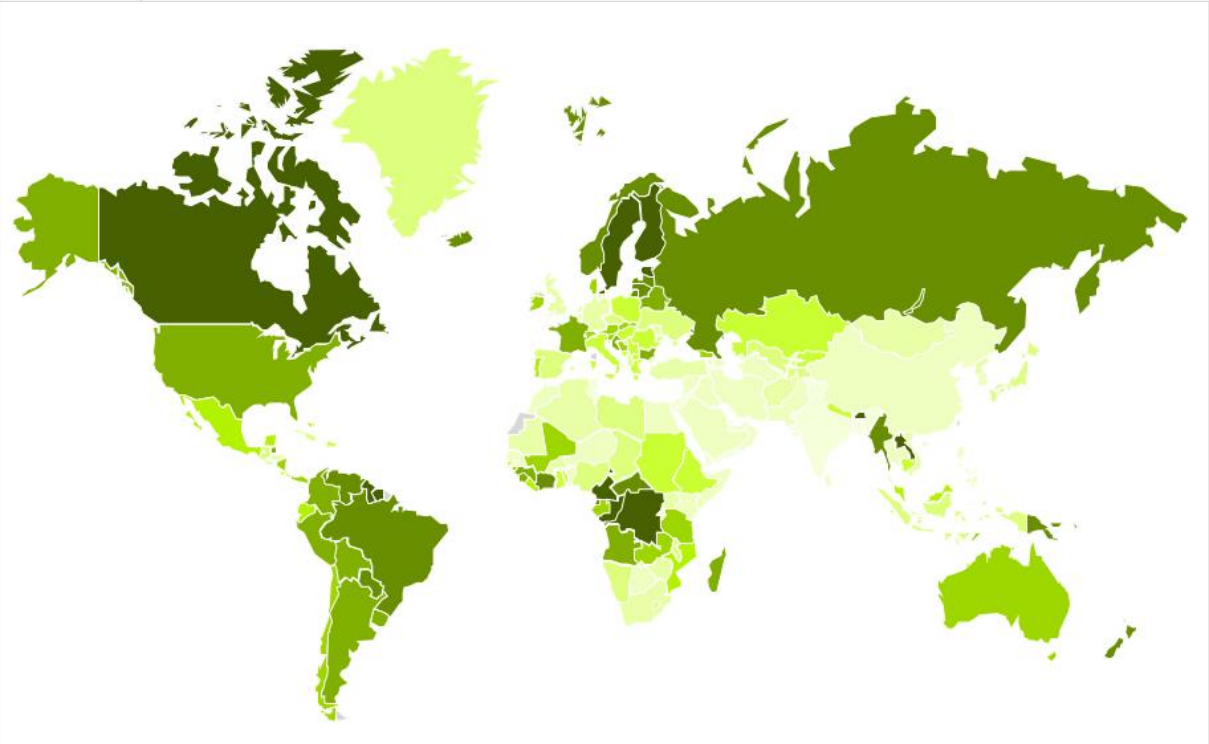
A nation's natural capital is a given value – it is as it is – i.e. there are limitations to human ability to improve or change the available natural capital. While it takes little to impair or exploit the natural capital, rebuilding or improving natural capital factors is difficult, and requires significant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

Natural Capital Ranking Observations

High-ranking countries are characterised by abundant water availability – which is equally the source of a rich biodiversity.

Many of the highest scoring countries are located in tropical areas, underscoring the overarching importance of the availability of sufficient water. While these countries currently may lack social, intellectual and governance capital, their Natural Capital would allow them to develop 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 of the natural capital ranking sees some surprising and less 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, New Zealand and Iceland. The low rankings of India (173) and China (155) 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.



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	70.9	Mali	46	53.5	Togo	91	45.3	Rwanda	136	36.8
Sweden	2	67.6	Austria	47	53.5	Dominica	92	45.2	Sri Lanka	137	36.5
Canada	3	66.5	Timor-Leste	48	53.3	Indonesia	93	44.8	Syria	138	36.4
Finland	4	66.3	Guinea-Bissau	49	53.0	Vanuatu	94	44.8	Egypt	139	36.2
Suriname	5	65.9	Slovenia	50	52.9	Ukraine	95	44.6	Benin	140	35.6
Estonia	6	65.4	Chile	51	52.5	Albania	96	44.2	Oman	141	35.6
Cameroon	7	65.4	Switzerland	52	52.4	Japan	97	44.2	Kenya	142	35.4
Bhutan	8	65.3	Nicaragua	53	52.1	Spain	98	44.1	Grenada	143	35.3
Guyana	9	64.7	Australia	54	52.0	Lesotho	99	43.4	Tonga	144	35.3
Laos	10	63.8	Georgia	55	51.9	Czech Republic	100	43.0	Niger	145	35.1
Republic of Congo	11	63.0	Bosnia and Herzegovina	56	51.6	Comoros	101	43.0	Senegal	146	35.1
Papua New Guinea	12	62.8	Slovakia	57	51.3	Malawi	102	42.8	Botswana	147	35.0
Equatorial Guinea	13	62.0	Fiji	58	51.3	Tajikistan	103	42.8	Iran	148	35.0
New Zealand	14	62.0	Zambia	59	51.2	Trinidad and Tobago	104	42.6	Saudi Arabia	149	34.9
Norway	15	62.0	Denmark	60	51.0	Nigeria	105	42.5	Belgium	150	34.8
Cote d'Ivoire	16	61.9	Liechtenstein	61	50.5	Uzbekistan	106	42.2	Burundi	151	34.7
Russia	17	61.1	Ecuador	62	50.5	Cuba	107	42.2	Djibouti	152	34.6
Paraguay	18	60.9	Mozambique	63	50.2	St. Kitts and Nevis	108	42.1	Thailand	153	34.6
Brazil	19	60.2	Malaysia	64	49.9	Libya	109	42.1	South Korea	154	34.4
Latvia	20	60.2	Portugal	65	49.8	Chad	110	41.9	China	155	34.3
Venezuela	21	59.9	Liberia	66	49.5	Namibia	111	41.8	Philippines	156	34.0
Lithuania	22	59.6	Bahamas	67	49.2	Cape Verde	112	41.6	Turkmenistan	157	33.6
Central African Republic	23	59.5	Mexico	68	49.2	Guatemala	113	41.5	Qatar	158	33.0
Iceland	24	59.5	Sudan	69	49.0	Burkina Faso	114	40.6	Iraq	159	33.0
Burma	25	59.3	Montenegro	70	48.9	Vietnam	115	40.3	United Arab Emirates	160	32.8
Uruguay	26	58.8	Romania	71	48.7	El Salvador	116	40.3	Maldives	161	32.0
Belarus	27	58.7	Brunei	72	48.6	Honduras	117	39.9	Israel	162	31.9
Peru	28	58.0	Serbia	73	48.4	Uganda	118	39.9	Eritrea	163	30.7
Sierra Leone	29	57.9	Samoa	74	48.4	Algeria	119	39.8	Antigua and Barbuda	164	30.5
Angola	30	57.9	Luxembourg	75	48.2	Germany	120	39.8	Barbados	165	30.5
USA	31	57.2	Greece	76	48.1	Zimbabwe	121	39.7	Kuwait	166	29.6
Bulgaria	32	57.2	Poland	77	48.1	Netherlands	122	39.6	Pakistan	167	29.5
Guinea	33	56.9	Ethiopia	78	47.9	United Kingdom	123	39.5	Azerbaijan	168	29.0
Argentina	34	56.6	Costa Rica	79	47.7	Armenia	124	38.9	Lebanon	169	28.6
Bolivia	35	56.4	Gambia	80	47.0	Mongolia	125	38.7	Malta	170	28.5
France	36	56.3	Ghana	81	46.8	Sao Tome and Principe	126	38.6	Yemen	171	28.4
Colombia	37	56.2	Swaziland	82	46.7	Mauritania	127	38.6	Tunisia	172	28.3
Belize	38	56.0	Kazakhstan	83	46.5	Seychelles	128	38.5	India	173	28.2
Madagascar	39	55.5	Italy	84	46.4	Mauritius	129	38.2	Haiti	174	27.8
Solomon Islands	40	55.3	Dominican Republic	85	46.3	Turkey	130	37.7	Singapore	175	26.3
Croatia	41	55.2	Cambodia	86	46.0	Afghanistan	131	37.5	Jamaica	176	26.2
Gabon	42	54.5	Macedonia	87	45.9	St. Lucia	132	37.4	Bahrain	177	24.9
Ireland	43	54.0	Nepal	88	45.9	South Africa	133	37.4	Cyprus	178	24.7
Tanzania	44	53.9	Kyrgistan	89	45.4	Moldova	134	37.2	Bangladesh	179	24.3
Panama	45	53.6	Hungary	90	45.4	Morocco	135	36.9	Jordan	180	20.2

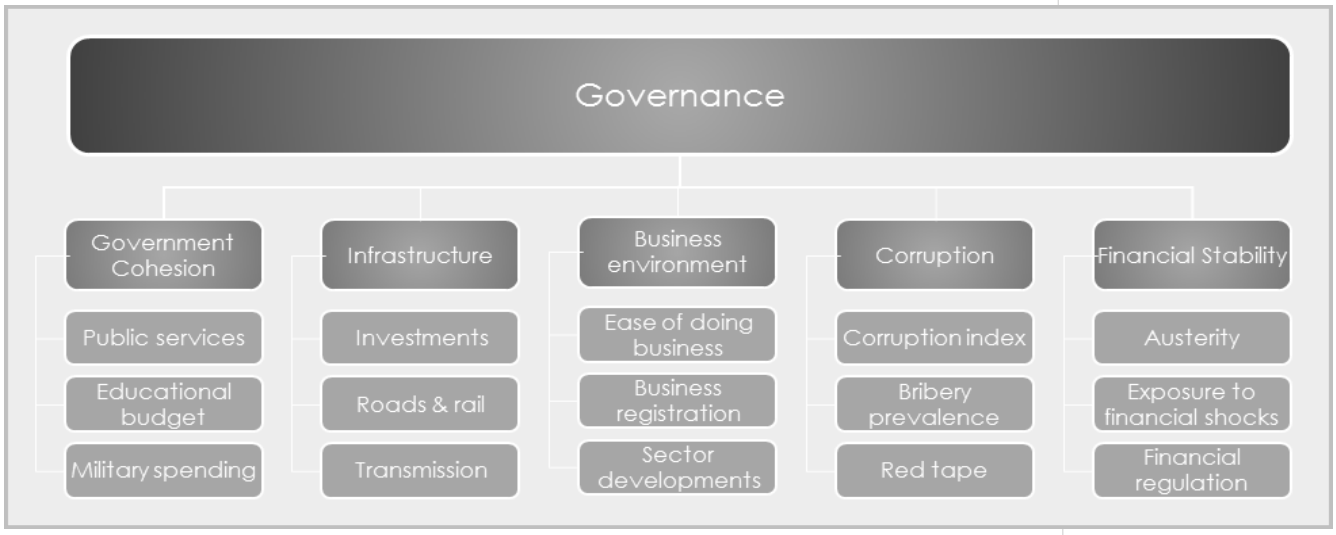
governance

4 Governance

Governing National Development: 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 society (the Social Capital), and in which the economy (Intellectual Capital, Resource Management) operates. 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.



Key elements of competitiveness drivers in the Governance Sub-Index

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 exclude all subjectivity in evaluating and calculating the Governance Sub-Index. In addition, some qualitative indicators (perceived quality of public services and perceived levels of corruption determined through reliable and international surveys) have been incorporated.

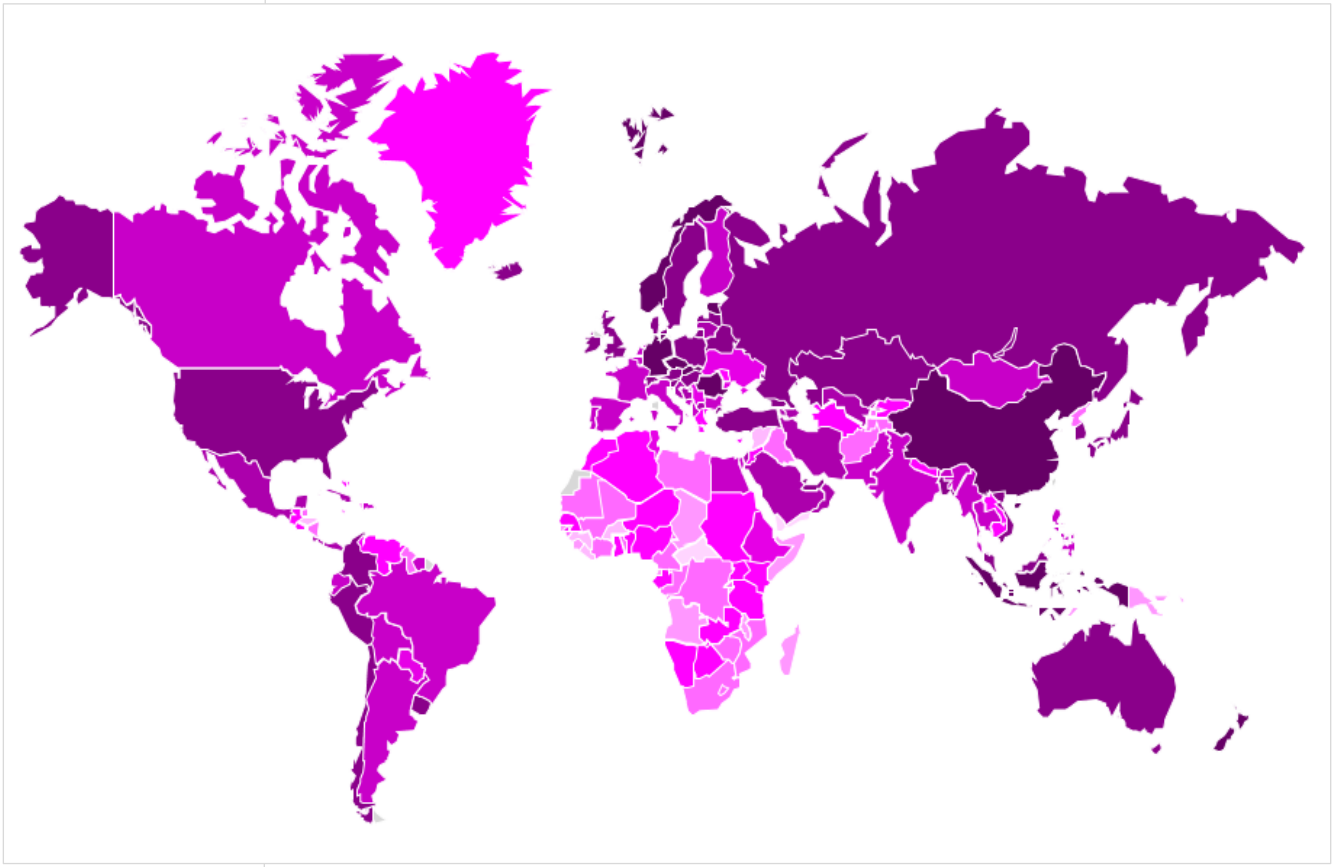
For the full list of indicators used, please refer to the methodology section.

The Governance World Map

The Governance Sub-Index of the Sustainable Competitiveness Index is based on quantitative data series – i.e. *not* 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 can flourish to generate new and sustain existing wealth.

Observations on the Governance ranking include:

- The Governance Ranking is topped by Estonia, followed by Indonesia. China is ranked 6
- The highest ranked European country is Germany (4), followed by Estonia (6), Norway (7), and Iceland (8).
- The USA is ranked 19, while the UK is somewhat left behind at 88.
- 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

Global Governance Rankings

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

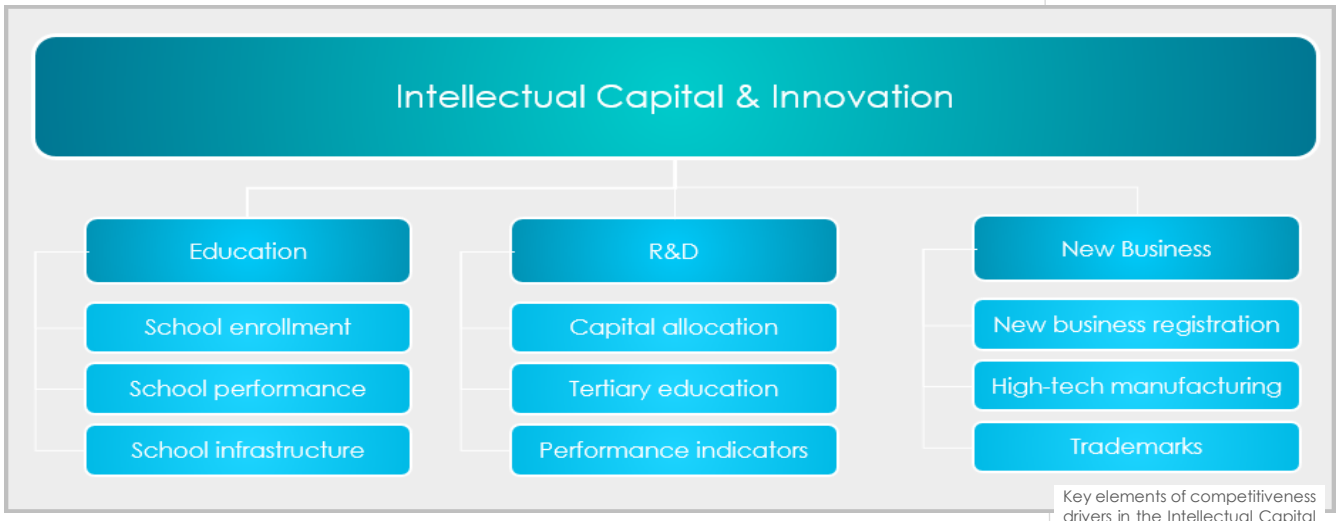
Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
Estonia	1	62.6	Sri Lanka	46	52.1	Serbia	91	46.2	Lesotho	136	39.0
Indonesia	2	62.6	Israel	47	51.8	Ethiopia	92	46.2	Libya	137	38.9
Norway	3	61.3	Kuwait	48	51.5	Malta	93	45.7	Fiji	138	38.8
Czech Republic	4	61.2	Armenia	49	51.4	Morocco	94	45.3	Tonga	139	38.5
Germany	5	60.7	Macedonia	50	51.0	Cape Verde	95	45.1	Cote d'Ivoire	140	38.1
China	6	58.9	Croatia	51	51.0	Turkmenistan	96	45.0	Guinea-Bissau	141	37.6
Romania	7	58.9	Oman	52	50.9	Moldova	97	44.8	Togo	142	37.5
Slovakia	8	58.3	Lithuania	53	50.9	Algeria	98	44.7	St. Lucia	143	37.4
New Zealand	9	58.1	Singapore	54	50.7	Benin	99	44.6	Lebanon	144	37.4
Austria	10	57.9	Panama	55	50.4	Botswana	100	44.3	Republic of Congo	145	37.3
Japan	11	57.8	Bahrain	56	50.1	St. Kitts and Nevis	101	44.1	Mali	146	37.0
Latvia	12	57.8	Saudi Arabia	57	50.1	Cyprus	102	44.1	Belize	147	36.9
Iceland	13	57.8	Costa Rica	58	50.1	Kyrgistan	103	44.0	Mozambique	148	36.9
Mauritius	14	57.4	Bosnia and Herzegovin	59	50.0	Nepal	104	44.0	South Africa	149	36.7
Liechtenstein	15	57.3	Iran	60	50.0	Dominica	105	43.9	Grenada	150	36.5
Denmark	16	57.2	Mongolia	61	49.9	Ghana	106	43.9	Nicaragua	151	35.8
Poland	17	56.4	Ecuador	62	49.8	Nigeria	107	43.6	Mauritania	152	35.5
Georgia	18	56.2	Philippines	63	49.7	Kenya	108	43.5	Eritrea	153	35.3
South Korea	19	56.2	Argentina	64	49.7	Namibia	109	43.4	Guyana	154	35.3
Malaysia	20	56.0	Pakistan	65	49.7	Guatemala	110	42.9	Jamaica	155	34.9
Slovenia	21	55.8	France	66	49.6	Tanzania	111	42.8	Zimbabwe	156	34.5
United Arab Emirates	22	55.7	Bolivia	67	49.5	Sudan	112	42.8	Antigua and Barbuda	157	34.1
Sweden	23	55.5	Belgium	68	49.5	Gabon	113	42.7	Chad	158	33.8
Qatar	24	55.4	Thailand	69	49.5	Zambia	114	42.4	Barbados	159	33.2
Luxembourg	25	55.2	Bulgaria	70	49.4	El Salvador	115	42.3	Angola	160	32.9
Uruguay	26	55.2	Italy	71	49.4	Niger	116	42.0	Timor-Leste	161	32.9
Turkey	27	55.1	Suriname	72	49.1	Brunei	117	41.8	Sierra Leone	162	32.8
Colombia	28	54.8	Spain	73	49.1	Laos	118	41.8	Equatorial Guinea	163	32.6
Ireland	29	54.8	Finland	74	49.0	Senegal	119	41.2	Malawi	164	32.6
Hungary	30	54.7	Dominican Republic	75	49.0	Maldives	120	41.0	Papua New Guinea	165	32.5
Peru	31	54.7	Bhutan	76	48.9	Venezuela	121	40.9	Samoa	166	32.5
Kazakhstan	32	54.4	Montenegro	77	48.8	Cambodia	122	40.5	Madagascar	167	32.3
Belarus	33	54.4	Trinidad and Tobago	78	48.8	Greece	123	40.4	Gambia	168	32.2
Chile	34	54.3	Brazil	79	48.5	Djibouti	124	40.4	Honduras	169	31.4
Switzerland	35	54.3	Egypt	80	48.1	Bahamas	125	40.2	Comoros	170	31.4
Bangladesh	36	54.2	Canada	81	48.1	Uganda	126	40.2	Burkina Faso	171	31.1
Australia	37	53.7	Burma	82	48.0	Jordan	127	40.1	Liberia	172	30.8
Vietnam	38	53.6	India	83	48.0	Democratic Republic o	128	39.9	Syria	173	30.6
United Kingdom	39	53.4	Portugal	84	47.9	Iraq	129	39.8	Guinea	174	30.0
Russia	40	53.2	Albania	85	47.7	Cameroon	130	39.7	Haiti	175	28.7
USA	41	53.0	Netherlands	86	47.4	Tajikistan	131	39.4	Burundi	176	28.1
Uzbekistan	42	52.8	Ukraine	87	46.9	Rwanda	132	39.3	Central African Republ	177	27.6
Azerbaijan	43	52.5	Tunisia	88	46.6	Afghanistan	133	39.2	Yemen	178	25.1
Mexico	44	52.1	Paraguay	89	46.5	Vanuatu	134	39.1	Solomon Islands	179	24.7
Cuba	45	52.1	Seychelles	90	46.3	Swaziland	135	39.1	Sao Tome and Principe	180	24.3

intellectual capital

5 Intellectual capital

Intellectual Capital is the fourth level of the Sustainable Competitiveness Pyramid. In order to create and sustain wealth, jobs and income for the population are 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 and/or parts 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 estimate the ability for sustained innovation and competitiveness.

Additional indicators include performance data on R&D activities and new business development indicators.

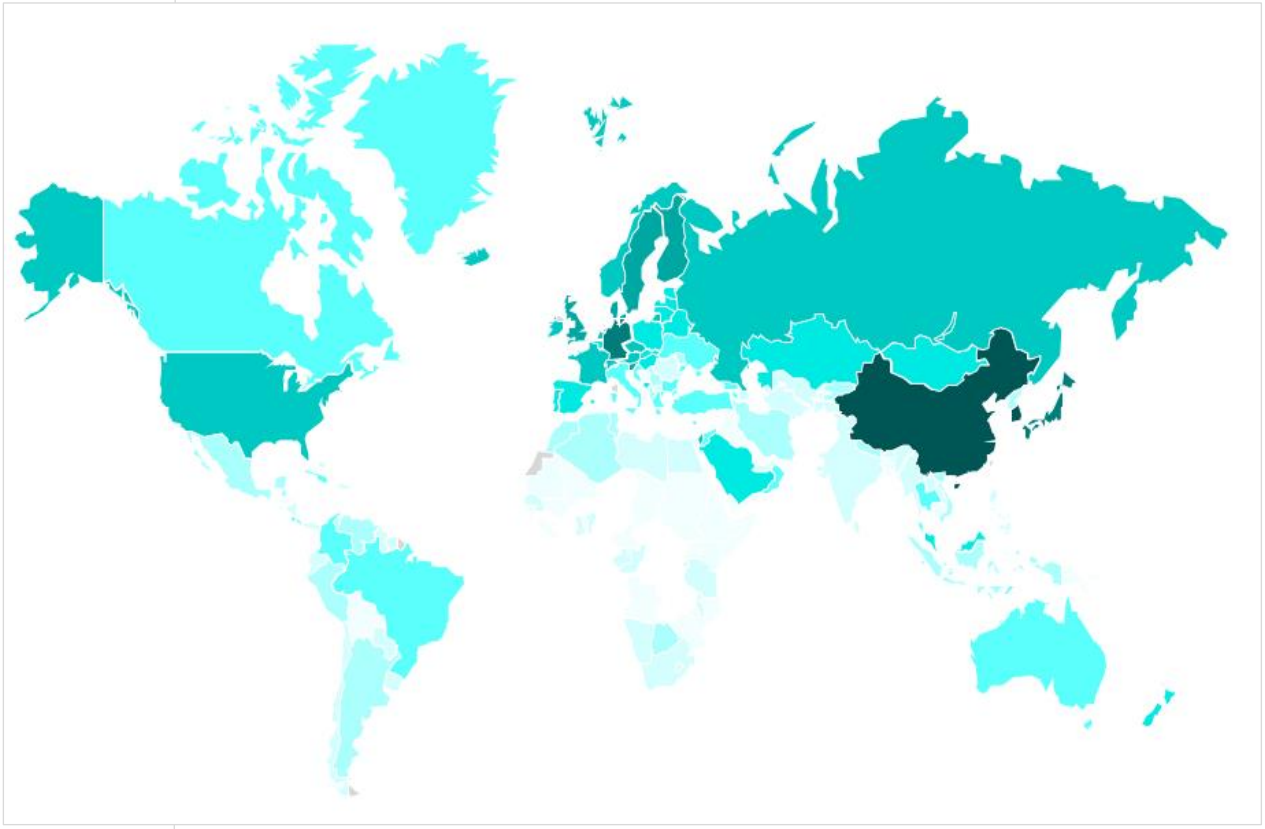
Further indicators relate to the actual business entrepreneurship – new business registration, trademark applications, and the health of the balance between agricultural, industrial and service sectors of an economy.

For the full list of indicators used, please refer to the methodology 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 (trends) of performance indicators have also been taken into account. Key observations of the Intellectual Capital ranking include:

- The innovation and competitiveness ranking is topped by South Korea – by a very large margin
- North-Eastern Asian nations (China, Japan, Singapore) and the OECD countries from the Northern hemisphere dominate the intellectual capital this sub-index.
- Eastern European countries and Former Soviet Republics also fare well.
- Malaysia (25), Cuba (38) and Thailand (43) are the highest ranked countries of the Southern hemisphere.
- Russia is ranked 42, Brazil 50, and India 116.



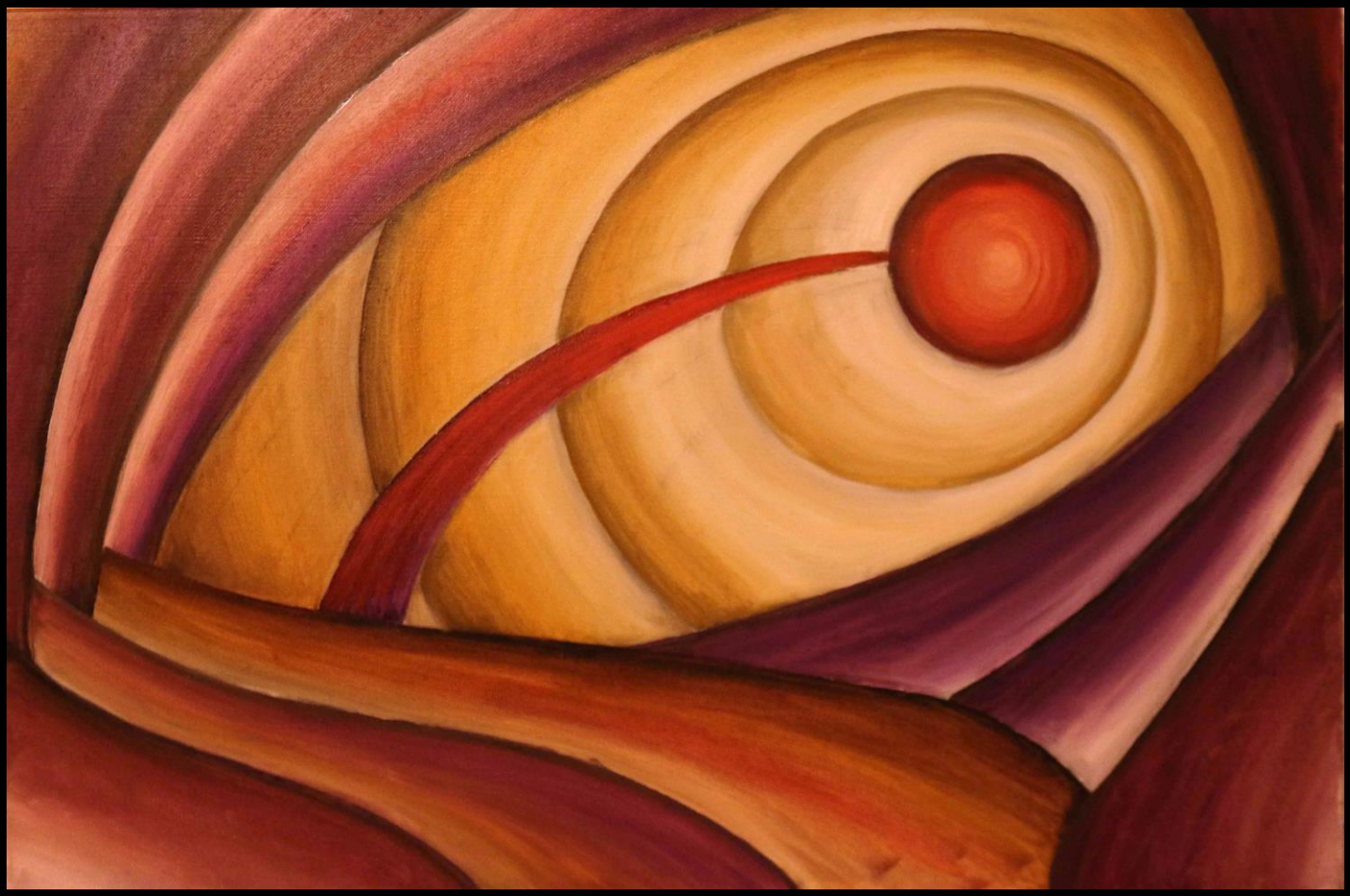
The Intellectual Capital World Map. Dark areas indicate high, light areas low availability of Intellectual Capital

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	75.2	Venezuela	46	45.7	Mexico	91	37.3	Honduras	136	29.4
Sweden	2	70.8	Kyrgistan	47	45.6	Armenia	92	37.3	Rwanda	137	28.6
Slovenia	3	68.0	Belarus	48	45.3	Tajikistan	93	37.2	Panama	138	28.3
Japan	4	65.7	Spain	49	45.2	United Arab Emirates	94	36.9	Nigeria	139	28.2
Finland	5	64.2	Brazil	50	44.9	Ghana	95	36.9	Mali	140	28.1
Germany	6	63.7	Latvia	51	44.8	Suriname	96	36.8	Nicaragua	141	28.0
China	7	63.0	Vietnam	52	44.7	Vanuatu	97	36.7	Benin	142	27.2
Denmark	8	62.9	Costa Rica	53	44.7	Philippines	98	36.7	Sao Tome and Principe	143	27.0
Norway	9	62.4	Bulgaria	54	44.6	Samoa	99	36.6	Niger	144	26.9
Singapore	10	62.3	Cyprus	55	43.7	Egypt	100	36.6	Lesotho	145	26.4
Malta	11	62.2	Barbados	56	43.6	Cape Verde	101	36.4	Burkina Faso	146	26.4
Switzerland	12	61.1	Serbia	57	43.6	Timor-Leste	102	36.3	Papua New Guinea	147	26.3
Netherlands	13	60.7	Paraguay	58	43.4	Turkmenistan	103	36.2	Cote d'Ivoire	148	26.2
United Kingdom	14	60.4	Chile	59	43.4	Swaziland	104	36.1	Haiti	149	25.8
Israel	15	60.0	Mongolia	60	43.4	Ecuador	105	35.9	Ethiopia	150	25.4
Liechtenstein	16	59.3	Oman	61	43.2	South Africa	106	35.7	Sudan	151	24.9
Iceland	17	58.7	Peru	62	43.1	Dominica	107	35.5	Djibouti	152	24.6
Austria	18	58.2	Uzbekistan	63	42.6	Algeria	108	35.2	Iraq	153	24.1
USA	19	57.9	Jordan	64	42.6	Qatar	109	35.1	Cambodia	154	24.0
New Zealand	20	57.8	Bahamas	65	42.4	Seychelles	110	35.0	Chad	155	23.9
Czech Republic	21	57.1	Moldova	66	42.1	Trinidad and Tobago	111	34.8	Sierra Leone	156	23.8
Belgium	22	56.9	Botswana	67	42.1	Senegal	112	34.7	Mozambique	157	23.3
France	23	56.4	Georgia	68	42.0	Romania	113	34.7	Equatorial Guinea	158	22.8
Ireland	24	55.9	Macedonia	69	41.9	Kenya	114	34.5	Angola	159	22.3
Malaysia	25	54.4	Albania	70	41.8	Gabon	115	34.4	Gambia	160	22.3
Lithuania	26	54.4	Tunisia	71	41.5	India	116	34.4	Guinea-Bissau	161	22.1
Portugal	27	54.2	Mauritius	72	41.3	Laos	117	34.4	Cameroon	162	21.7
Luxembourg	28	52.5	Bahrain	73	41.0	Bhutan	118	34.3	Mauritania	163	21.5
Estonia	29	51.9	Morocco	74	40.9	Uruguay	119	34.2	Tanzania	164	21.4
Hungary	30	51.5	Saudi Arabia	75	40.9	Azerbaijan	120	33.8	Burundi	165	21.4
Poland	31	51.1	Argentina	76	40.6	Indonesia	121	33.5	Liberia	166	21.3
Croatia	32	50.8	Maldives	77	40.3	Guyana	122	32.2	Afghanistan	167	21.2
Australia	33	50.5	Jamaica	78	40.1	Republic of Congo	123	32.1	Bangladesh	168	21.1
Canada	34	50.5	Fiji	79	39.7	El Salvador	124	31.7	Togo	169	20.9
Ukraine	35	50.3	St. Kitts and Nevis	80	39.5	Grenada	125	31.7	Democratic Republic o	170	20.2
Slovakia	36	49.9	Colombia	81	39.1	Sri Lanka	126	31.6	Eritrea	171	19.8
Brunei	37	49.9	Namibia	82	39.0	Bosnia and Herzegovir	127	31.4	Uganda	172	19.5
Cuba	38	49.8	Kuwait	83	38.8	Malawi	128	31.0	Guatemala	173	19.2
Italy	39	49.3	Iran	84	38.7	Antigua and Barbuda	129	30.9	Guinea	174	18.8
Kazakhstan	40	49.1	Montenegro	85	38.7	Burma	130	30.6	Zambia	175	17.9
Greece	41	49.0	Belize	86	38.0	Nepal	131	29.8	Zimbabwe	176	17.8
Russia	42	48.9	Dominican Republic	87	37.8	Comoros	132	29.7	Yemen	177	17.7
Thailand	43	48.8	St. Lucia	88	37.5	Libya	133	29.6	Central African Republ	178	15.4
Turkey	44	48.4	Tonga	89	37.4	Syria	134	29.5	Madagascar	179	15.3
Lebanon	45	48.0	Bolivia	90	37.4	Solomon Islands	135	29.4	Pakistan	180	15.0

Resource Intensity



6 Resource Management

The second 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. Over-exploitation 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 into the future.

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.

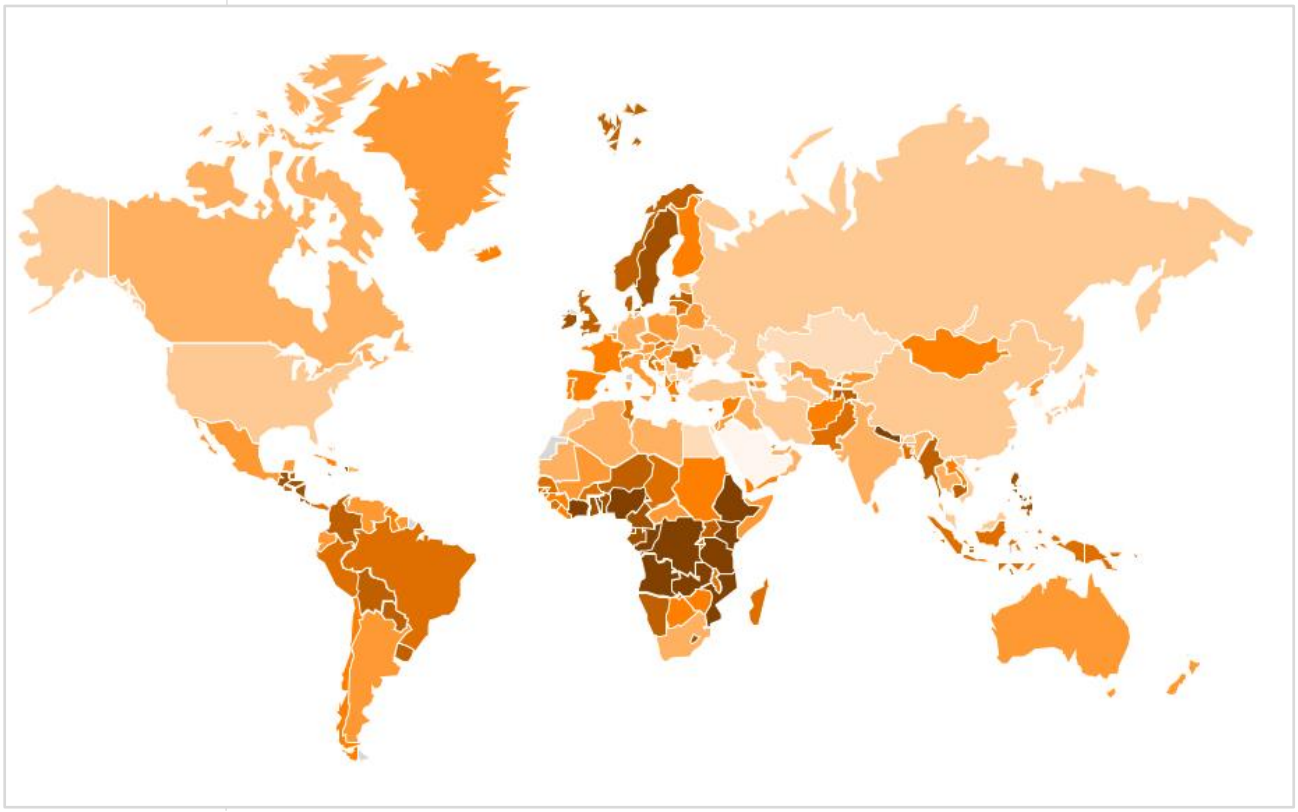
Resource Management World Map

The resource intensity ranking is topped by less developed countries, with no OECD nation or developed economy in the top 20. Ireland and Sweden, the highest ranking of the developed economies, are placed 21 & 26, followed by Latvia (33), and Luxembourg (35). The UK, thanks to a near-complete de-industrialisation ranks 39. World's economic powerhouses score comparable low: Germany is ranked 149, Japan 162, and the USA at 161. Brazil is positioned the highest among the large emerging economies (66), while India (138), China (166) and Russia (152) have a distinctive potential for improving their sustainable competitiveness through improving resource intensity and resource management – i.e. reducing costs, at the end of the day.

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 higher or lower 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 costs and 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.

Resource Management Rankings

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

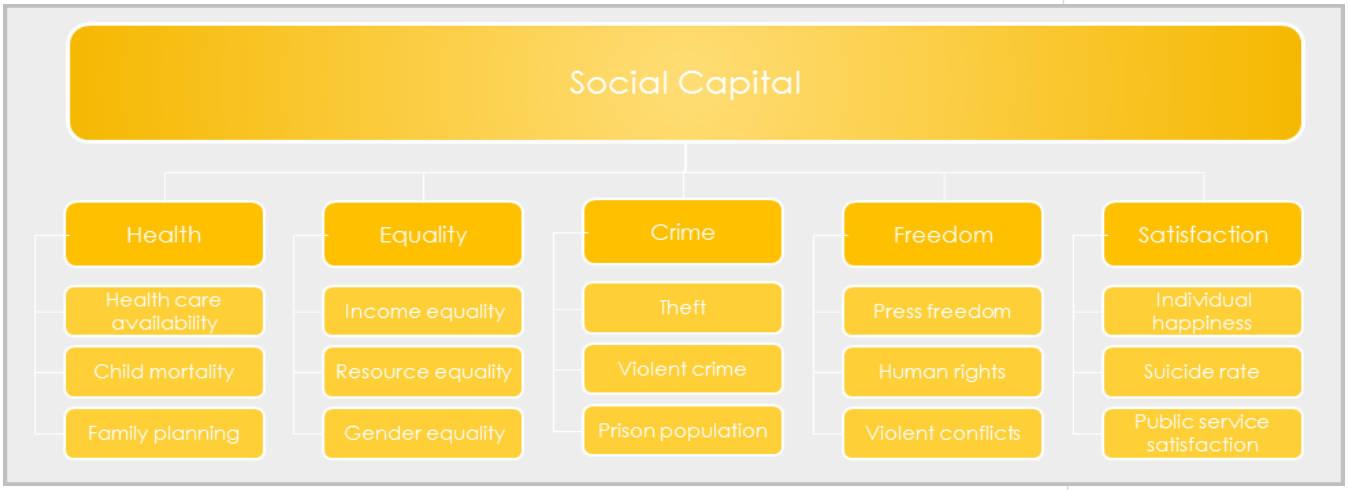
Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
Republic of Congo	1	61.4	Burma	46	47.4	Portugal	91	42.4	Libya	136	37.9
Mozambique	2	61.3	Uruguay	47	47.1	Iceland	92	42.4	Liechtenstein	137	37.6
Ethiopia	3	59.1	Rwanda	48	47.0	Fiji	93	42.1	India	138	37.6
Kenya	4	58.9	Malawi	49	46.8	Laos	94	42.1	St. Kitts and Nevis	139	37.4
Democratic Republic o	5	58.2	Burkina Faso	50	46.6	Botswana	95	42.1	Algeria	140	37.4
Angola	6	57.8	Papua New Guinea	51	46.4	Guyana	96	42.1	Slovenia	141	37.2
Tanzania	7	57.8	Gambia	52	46.4	Mongolia	97	42.0	Dominican Republic	142	36.7
Nigeria	8	57.5	Panama	53	46.4	Djibouti	98	42.0	Canada	143	36.7
Nepal	9	56.7	Switzerland	54	46.2	Cuba	99	42.0	South Africa	144	36.4
Togo	10	56.0	Lithuania	55	46.1	Qatar	100	41.7	Thailand	145	36.2
Zambia	11	55.3	Chad	56	46.0	Afghanistan	101	41.4	Mauritania	146	35.8
Cote d'Ivoire	12	55.1	Peru	57	46.0	Spain	102	41.4	United Arab Emirates	147	35.7
Cameroon	13	54.8	Burundi	58	45.9	Finland	103	41.4	Oman	148	35.6
Nicaragua	14	54.7	Moldova	59	45.7	Samoa	104	41.3	Germany	149	35.4
Haiti	15	54.6	Croatia	60	45.6	Syria	105	41.2	Iraq	150	35.3
Honduras	16	54.4	Bangladesh	61	45.6	Brunei	106	41.1	Macedonia	151	35.0
Guatemala	17	54.4	Tunisia	62	45.5	Vanuatu	107	40.9	Russia	152	34.8
Jamaica	18	53.8	Romania	63	45.4	Australia	108	40.9	Lebanon	153	34.6
Equatorial Guinea	19	53.8	Madagascar	64	45.4	Solomon Islands	109	40.9	Morocco	154	34.5
Benin	20	53.1	Slovakia	65	45.3	Belgium	110	40.7	Bhutan	155	34.4
Ireland	21	52.7	Brazil	66	45.3	Mali	111	40.7	Ukraine	156	34.4
Gabon	22	52.3	Indonesia	67	45.1	Austria	112	40.7	Singapore	157	34.4
Ghana	23	52.0	Sierra Leone	68	44.8	Mexico	113	40.6	Turkmenistan	158	34.3
Lesotho	24	51.9	Senegal	69	44.8	Seychelles	114	40.4	Bahamas	159	34.3
Costa Rica	25	51.6	Cape Verde	70	44.6	Mauritius	115	40.1	Netherlands	160	33.9
Sweden	26	51.5	Armenia	71	44.6	Italy	116	40.1	USA	161	33.8
Sao Tome and Principe	27	51.2	Pakistan	72	44.5	Poland	117	40.1	Japan	162	33.7
Philippines	28	51.0	Cyprus	73	44.4	Central African Republ	118	40.0	Kuwait	163	33.6
Namibia	29	50.9	Timor-Leste	74	43.8	Venezuela	119	40.0	Malaysia	164	33.3
Bolivia	30	50.7	Tonga	75	43.7	Swaziland	120	40.0	Bahrain	165	33.1
Cambodia	31	50.3	Georgia	76	43.4	Maldives	121	39.8	China	166	32.7
Colombia	32	50.2	Dominica	77	43.4	Czech Republic	122	39.6	Grenada	167	32.3
Latvia	33	50.1	Albania	78	43.4	Sri Lanka	123	39.6	Serbia	168	32.3
El Salvador	34	50.0	Greece	79	43.3	New Zealand	124	39.5	Iran	169	32.2
Luxembourg	35	50.0	Guinea	80	43.2	Belarus	125	39.4	Vietnam	170	32.2
Belize	36	49.8	Sudan	81	43.2	Argentina	126	39.4	Turkey	171	32.1
Comoros	37	49.6	Yemen	82	43.1	Uzbekistan	127	39.4	St. Lucia	172	32.0
Eritrea	38	49.5	Liberia	83	43.1	Hungary	128	39.4	Bulgaria	173	31.9
United Kingdom	39	49.3	Trinidad and Tobago	84	43.1	Kyrgistan	129	39.4	Montenegro	174	31.9
Uganda	40	49.2	Guinea-Bissau	85	43.0	Jordan	130	39.3	Kazakhstan	175	31.4
Niger	41	49.1	Chile	86	43.0	Suriname	131	39.3	Barbados	176	30.3
Denmark	42	48.7	Bosnia and Herzegovir	87	43.0	Azerbaijan	132	39.1	Antigua and Barbuda	177	30.2
Paraguay	43	48.3	Zimbabwe	88	42.8	Ecuador	133	39.0	Egypt	178	30.0
Norway	44	48.3	France	89	42.7	Israel	134	38.8	Saudi Arabia	179	26.9
Tajikistan	45	47.7	Malta	90	42.6	Estonia	135	37.9	South Korea	180	25.1

social cohesion

7 Social Capital

The Social Capital of a nation is the sum of social stability and the well-being (perceived or real) of the entire population. Social Capital 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 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 (without 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.



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

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).

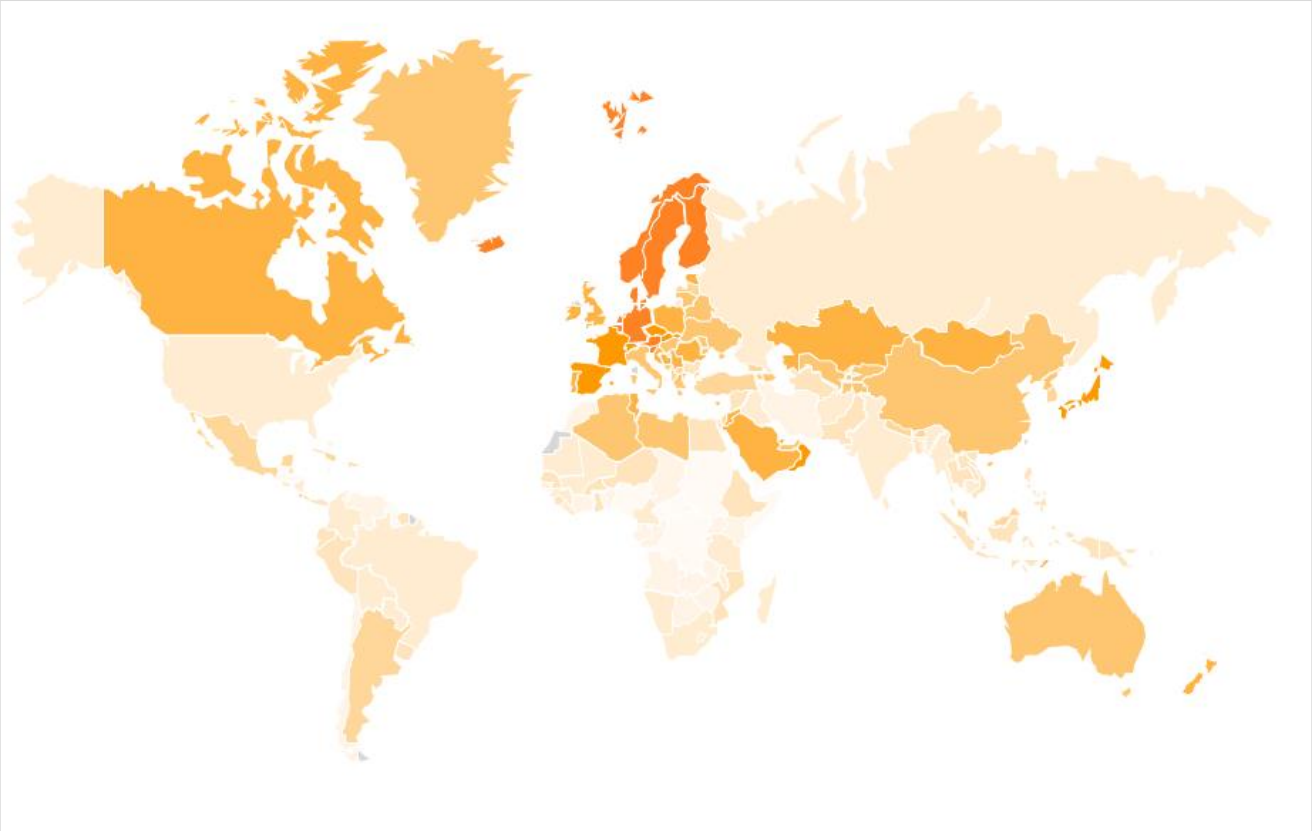
For the full list of used indicators, please refer to the methodology section.

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 paths 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, plus Germany, Slovenia Luxembourg, Netherlands, and Belgium. Interestingly (and despite gender deficits), Kuwait (14) Qatar (16) and Oman (17) make the top 20 thanks to health services available to all, low crime rates, and good public services. Japan (12) 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 114, just below Liberia and before Afghanistan, while the UK is ranked 22. China is ranked 50, India 110, and Brazil 118. The highest ranked South American country is Costa Rica (62).

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

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
Norway	1	63.3	Italy	46	47.8	Indonesia	91	39.2	Gambia	136	33.7
Luxembourg	2	63.0	Moldov a	47	47.8	Laos	92	39.2	Mali	137	33.6
Iceland	3	61.8	Maldiv es	48	47.6	Bangladesh	93	39.2	Rwanda	138	33.6
Germany	4	60.6	Montenegro	49	47.4	Bahrain	94	39.1	Trinidad and Tobago	139	33.4
Denmark	5	60.4	China	50	47.2	Thailand	95	39.0	Colombia	140	33.4
Slov enia	6	60.1	Kyrgistan	51	47.2	Niger	96	38.6	Morocco	141	32.9
Finland	7	60.0	Malta	52	47.0	Philippines	97	38.6	Venezuela	142	32.8
Belgium	8	60.0	Armenia	53	46.7	Peru	98	38.4	Benin	143	32.8
Netherlands	9	59.5	Ukraine	54	46.7	Sierra Leone	99	38.4	Gabon	144	32.8
Sweden	10	59.3	United Arab Emirates	55	46.5	Mozambique	100	38.3	Chad	145	32.8
Austria	11	58.6	Libya	56	46.3	Suriname	101	38.1	Cape Verde	146	32.5
Japan	12	58.4	Azerbaijan	57	46.3	Pakistan	102	38.0	Equatorial Guinea	147	32.5
Switzerland	13	58.2	Tajikistan	58	46.3	Tonga	103	38.0	Kenya	148	32.4
Kuwait	14	57.2	Uzbekistan	59	46.1	Ethiopia	104	37.6	Zambia	149	32.2
Liechtenstein	15	57.1	Hungary	60	45.6	Belize	105	37.4	Uganda	150	32.1
Qatar	16	55.8	Greece	61	45.1	Dominican Republic	106	37.4	Guinea-Bissau	151	32.0
Oman	17	55.2	Seychelles	62	45.1	Bahamas	107	36.9	Iran	152	31.7
Spain	18	55.0	Algeria	63	45.1	Burma	108	36.6	Zimbabwe	153	31.4
Slov akia	19	54.3	Argentina	64	44.7	Nicaragua	109	36.6	Cote d'Iv oire	154	31.3
France	20	53.9	South Korea	65	43.5	India	110	36.6	Botswana	155	31.3
Czech Republic	21	53.0	Malaysia	66	43.4	South Africa	111	36.5	Comoros	156	31.1
Croatia	22	52.5	Israel	67	43.1	Namibia	112	36.2	Angola	157	30.8
Canada	23	52.4	Costa Rica	68	43.1	Liberia	113	36.2	Sao Tome and Principe	158	30.2
Ireland	24	52.4	Cuba	69	42.8	USA	114	36.1	Samoa	159	30.2
Mongolia	25	52.3	Macedonia	70	42.3	Afghanistan	115	35.9	Togo	160	30.0
United Kingdom	26	52.2	Latv ia	71	42.0	Cameroon	116	35.6	Chile	161	29.9
Brunei	27	51.1	Georgia	72	41.9	Guinea	117	35.5	Republic of Congo	162	29.4
Romania	28	50.7	Turkey	73	41.9	Brazil	118	35.5	Antigua and Barbuda	163	29.3
Timor-Leste	29	50.7	Bhutan	74	41.9	Cambodia	119	35.3	Vanuatu	164	29.3
Jordan	30	50.5	Nepal	75	41.8	Sri Lanka	120	35.2	Yemen	165	28.8
Poland	31	50.4	Albania	76	41.7	Madagascar	121	35.0	Barbados	166	28.8
Lebanon	32	50.2	Mexico	77	41.6	Mauritius	122	35.0	Guyana	167	28.7
Portugal	33	50.2	Turkmenistan	78	41.0	Boliv ia	123	35.0	Djibouti	168	28.7
Singapore	34	50.0	Vietnam	79	40.9	Tanzania	124	35.0	Democratic Republic o	169	28.5
Estonia	35	50.0	Uruguay	80	40.9	El Salv ador	125	34.9	Guatemala	170	28.3
New Zealand	36	49.9	Bulgaria	81	40.7	Russia	126	34.8	Fiji	171	28.2
Serbia	37	49.7	Papua New Guinea	82	40.7	Paraguay	127	34.7	Grenada	172	28.2
Kazakhstan	38	49.6	Panama	83	40.7	St. Kitts and Nev is	128	34.6	Eritrea	173	28.2
Bosnia and Herzegov in	39	49.6	Ghana	84	40.2	Malawi	129	34.6	Sudan	174	27.9
Tunisia	40	49.4	Senegal	85	40.1	Iraq	130	34.5	Honduras	175	27.5
Cyprus	41	49.3	Ecuador	86	40.1	Burundi	131	34.2	Haiti	176	26.0
Saudi Arabia	42	49.0	Egypt	87	40.0	Mauritania	132	34.1	Central African Republ	177	25.6
Australia	43	48.5	Syria	88	39.6	Solomon Islands	133	34.1	Swaziland	178	25.5
Belarus	44	48.3	Burkina Faso	89	39.3	Lesotho	134	33.9	Nigeria	179	24.8
Lithuania	45	47.8	Dominica	90	39.2	Jamaica	135	33.9	St. Lucia	180	18.5

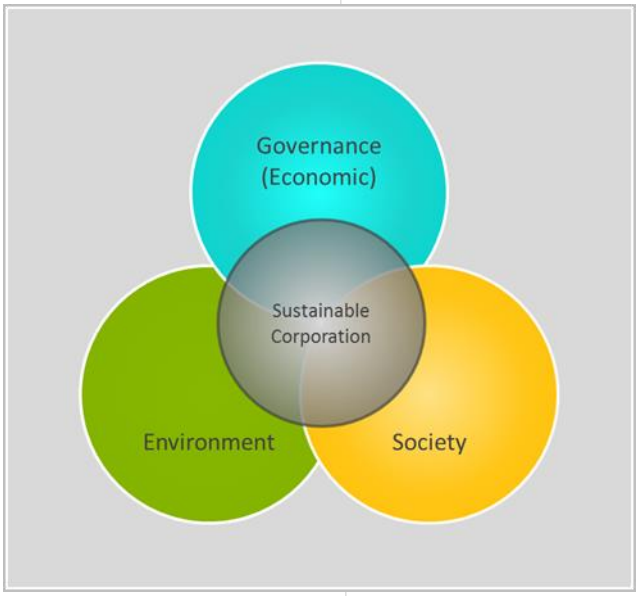
methodology

8 The Sustainable Competitiveness Model & Index Methodology

8.1 The Sustainable 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.

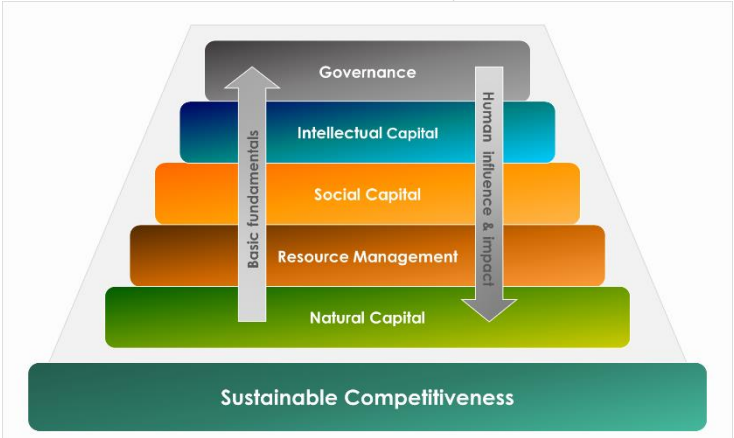


Model of sustainable development often applied in ESG research

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.

The Sustainable Competitiveness Pyramid

Sustainable competitiveness - they ability to generate and sustain inclusive 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 by government policies & investments, in which a national economy operates).

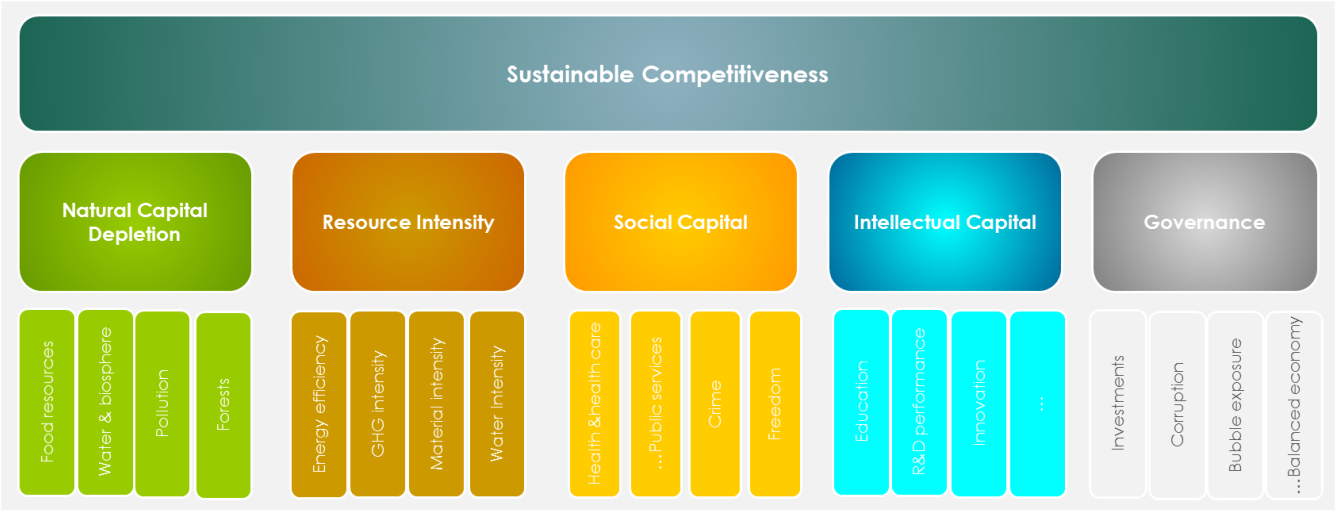


The Sustainable Competitiveness Pyramid

It is now widely accepted that economic activities have adverse impacts or side-effects on the non-financial assets of a country. The negative impacts of economic activities - including negative impacts on the social fabric and cohabitation within a society - can undermine or even reverse future growth and wealth creation. Due to the omission of key non-financial indicators and performance that are fundamental to sustain economic activities, conventionally used measurements to measure wealth of nations such as the GDP have limited informative value for the future development of a country.

Sustainable competitiveness means the ability of a country to meet the needs and basic requirements of current generations while sustaining or growing the national and individual wealth into the future without depleting natural and social capital.

The Sustainable Competitiveness Index is built and calculated based on the sustainable competitiveness model that covers 106 data indicators grouped in5 pillars:



Social Cohesion is the fundamental stability required to maintain interruption-free economic activities: the health of populations, equality, security and freedom within a country

- Natural Capital is the based to sustain a society and economic activities: the given natural environment within the frontiers of a country, including availability of resources, and the level of the depletion of those resources.
- Resource Intensity is a measurement of efficiency, and thus an element of competitiveness: the efficiency of using available resources (domestic or imported) as a measurement of operational competitiveness in a resource-constraint World.
- Social Cohesion is the fundamental stability required to maintain interruption-free economic activities: the health of populations, equality, security and freedom within a country
- Sustainable Innovation is key to sustain economic development in the globalised market: the capability of a country to generate wealth and jobs through innovation and value-added industries in the globalised markets
- The Governance framework is the environment businesses and a national economy are operating in. It is key to future development, not only for software, but also hardware.

Methodology Development

The competitiveness of a nation is influenced by a wide range of factors, i.e. is a 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 a redesign of the Sustainable Competitiveness model and additional indicators added (71 in 2013, 104 in 2014). The changes to the Sustainable Competitiveness Model and indicators have been undertaken based on past experiences, new research, data availability, and back-track analysis.

Due to the changes in the methodology, rankings of the current rankings prior to 2014 are not fully compatible with current rankings. 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.

The sustainable competitiveness model has been adapted to better reflect the elements that characterise and influence sustainable competitiveness of nation-economy, and how those elements influence and impact each other. The model used for the first Index consisted of 4 key elements – Natural Capital, Resource Intensity, Sustainable Innovation, and Social Cohesion. Since 2014, the 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 **Resource Management** – the ability to use available resources at the highest possible efficiency - natural resources, human resources, intellectual resources, financial resources.
- The third 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 fourth 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 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.

8.2 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
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)
SO2 emissions per capita
Biodiversity Benefit Index (GEF)
Fertilizer consumption/ha
Tourist attractiveness
Ocean Health Index
Population exposed to climate risks
Primary education completion

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.

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 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.

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

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.

Social Capital

The economy requires stability to run free of interruptions. Nations and societies therefore need a minimum level of social cohesion, coherence, and solidarity between different regions, between authorities and the people, between different 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 the 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.

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.

Governance

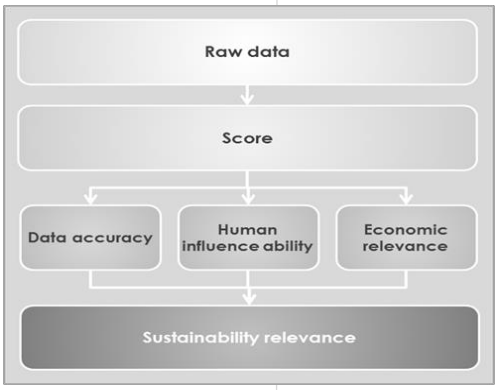
With the given physical environment and conditions in place, the sustained competitiveness of a country is determined by what the society and the economy is able to extract from available resources. This, in turn, is characterized by the framework provided by authorities. The framework of a country provides 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.)

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

Intellectual Capital
Primary education completion
Primary student repetitions
Secondary education enrolment
Tertiary education enrolment
Mean school years
R&D FTEs per million people
R&D spending
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

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

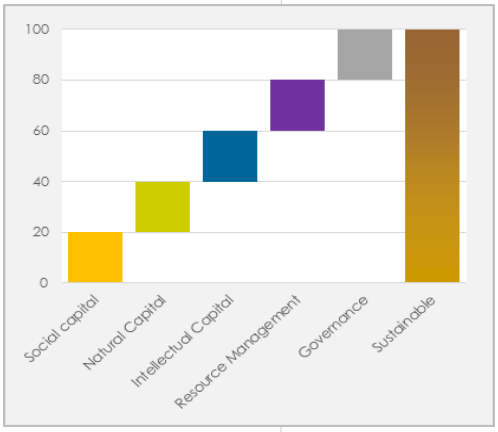
8.3 Index calculation



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 (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%.



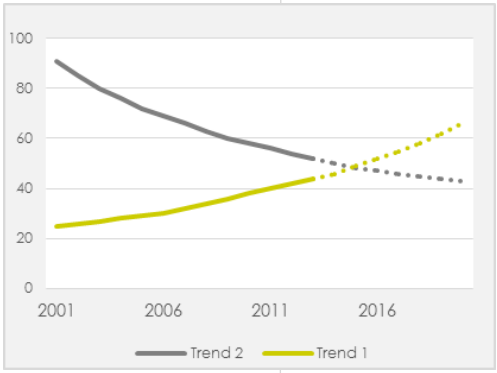
Each level of the Sustainable Competitiveness Pyramid is equally important and therefore equally weighted

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.

Trend analysis: Integrating recent developments



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

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.

Methodology Details

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. Index calculation

Data reliability & accuracy

The accuracy of the index relies on the accuracy of the underlying data. Given the many individual and agencies involved in data collected around the World, it cannot be excluded that some of the data is not completely accurate. Data sources chosen for this Index (World Bank, UN agencies) are considered reasonably reliable. Raw data from the various databases was used as a basis for calculation as-is, i.e. without verifying the actual data.

Limitations of quantitative analysis

In order to exclude subjectivity, only quantitative data has been taken into account. However, quantitative indicators sometimes are not able to differentiate or express real and actual levels of quality. High spending on health care for example does not necessarily guarantee high quality health care system available for the average citizen. Equally, the percentage of school enrolment (on all levels, form primary levels to college and universities) is not necessarily an expression of the quality of the education. However, for some indicators, quality is equally important to quantity from a sustainability viewpoint. For such indicators, quantitative indicators have limited informative value and serve as a proxy.

While explanatory power of quantitative indicators is limited, conducting a qualitative evaluation of the 73 indicators used on the global level would go far beyond the limitations of this index. For indicators with a potentially low correlation between quantity and quality, the weighting has been adjusted accordingly. In order to integrate some qualitative aspects, results of global surveys have been included, e.g. for the quality of public services, or perceived life satisfaction.

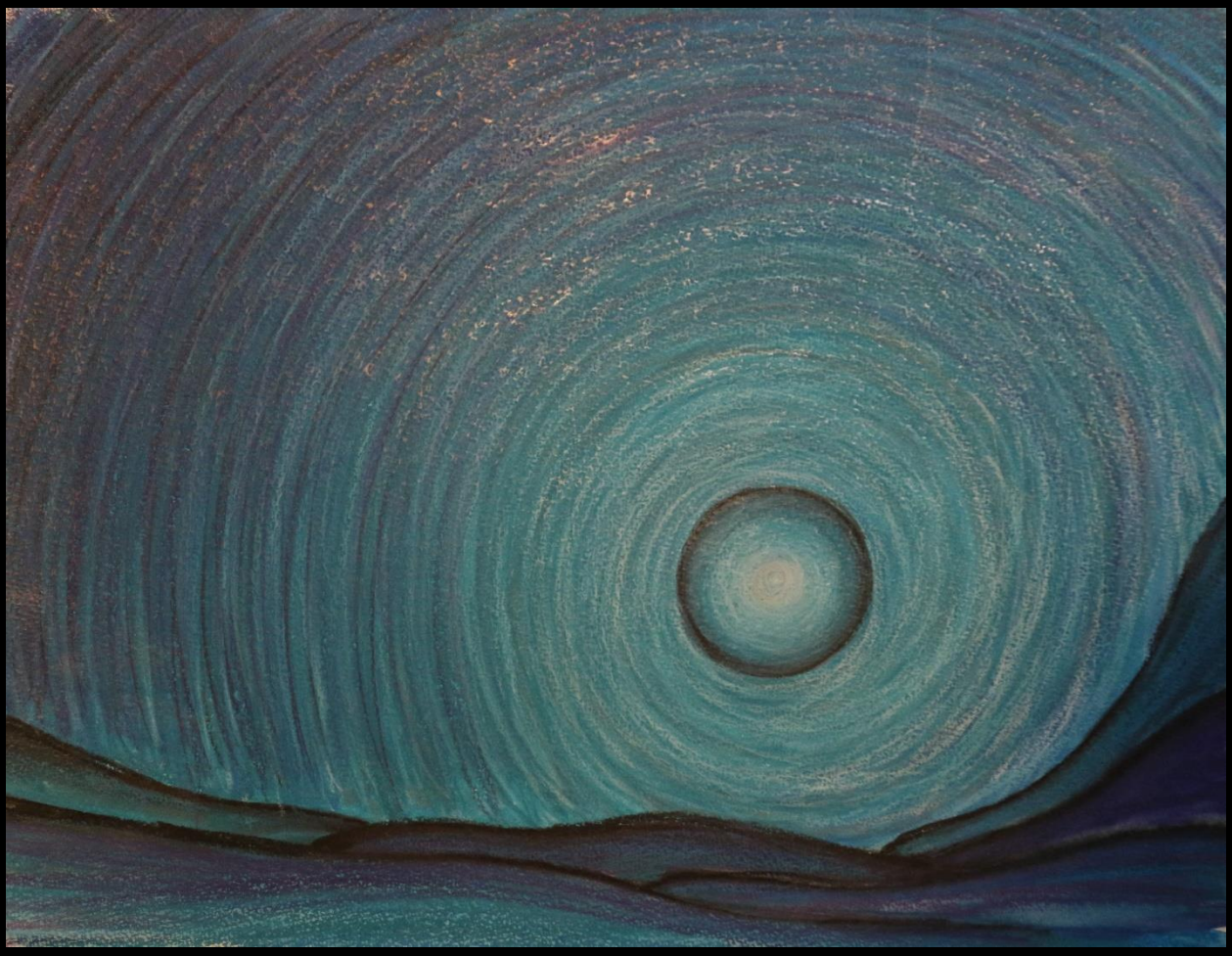
Time frame of data used

The Sustainable Competitiveness Index 2016 is based on the latest available data. For most data series, the latest data available (October 2016) dates 2015 or 2014. Where 2015 data was available, 2015 data has been used. Where 2015 or 2015 data was not available, 2013 data was used, and in a few cases 2012 data has been used.

Availability of data

For some indicators data is not available for all countries (in particular for the less or least developed economies). If non-available data points would be converted to a 0 (zero) score, the rankings would be distorted. In order to present a balanced overall picture, the missing data points from those countries have been replaced with calculated values, extrapolated based on regional averages, income and development levels, as well as geographical features and climatic averages.

tables



9 Data Tables

The Global Sustainable Competitiveness Index

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
Sweden	1	60.9	Brunei	46	46.5	Mauritius	91	42.4	Egypt	136	38.2
Norway	2	59.4	Kazakhstan	47	46.2	Vietnam	92	42.4	Vanuatu	137	38.2
Finland	3	56.2	Argentina	48	46.2	Tunisia	93	42.2	Morocco	138	38.1
Denmark	4	56.0	Suriname	49	45.8	Namibia	94	42.2	Turkmenistan	139	38.0
Iceland	5	56.0	Bolivia	50	45.8	Tanzania	95	42.2	Togo	140	37.9
Slovenia	6	54.8	Cuba	51	45.8	Kuwait	96	42.1	Samoa	141	37.8
Switzerland	7	54.4	Mongolia	52	45.3	Philippines	97	42.0	Jamaica	142	37.8
Ireland	8	53.9	Greece	53	45.2	Mozambique	98	42.0	Bahrain	143	37.6
Luxembourg	9	53.8	Malta	54	45.2	Papua New Guinea	99	41.7	Malawi	144	37.6
Austria	10	53.8	Israel	55	45.1	Thailand	100	41.6	Sudan	145	37.5
Estonia	11	53.6	Bosnia and Herzegovin	56	45.1	United Arab Emirates	101	41.5	Guinea-Bissau	146	37.5
New Zealand	12	53.5	Indonesia	57	45.0	Dominica	102	41.5	Iran	147	37.5
Liechtenstein	13	52.4	Bhutan	58	45.0	Dominican Republic	103	41.4	Swaziland	148	37.5
Germany	14	52.1	Bulgaria	59	44.8	Nicaragua	104	41.4	Guatemala	149	37.3
Japan	15	52.0	Singapore	60	44.7	Cyprus	105	41.2	Rwanda	150	37.1
Slovakia	16	51.8	Republic of Congo	61	44.7	Seychelles	106	41.1	Comoros	151	37.0
France	17	51.8	Chile	62	44.6	Kenya	107	40.9	India	152	36.9
Lithuania	18	51.8	Uzbekistan	63	44.6	Equatorial Guinea	108	40.7	Solomon Islands	153	36.9
Croatia	19	51.0	Ukraine	64	44.6	Bahamas	109	40.6	Guinea	154	36.9
Latvia	20	51.0	Burma	65	44.4	Guyana	110	40.6	Bangladesh	155	36.9
United Kingdom	21	51.0	Kyrgistan	66	44.3	Trinidad and Tobago	111	40.5	Burkina Faso	156	36.8
Canada	22	50.8	Laos	67	44.2	Algeria	112	40.4	Madagascar	157	36.7
Czech Republic	23	50.8	Qatar	68	44.2	Saudi Arabia	113	40.4	South Africa	158	36.5
Belarus	24	49.2	Mexico	69	44.2	Angola	114	40.3	Honduras	159	36.5
Poland	25	49.2	Oman	70	44.1	Azerbaijan	115	40.1	Gambia	160	36.3
Australia	26	49.1	Serbia	71	44.0	Maldives	116	40.1	Liberia	161	36.2
Portugal	27	48.9	Ghana	72	44.0	Cape Verde	117	40.0	Uganda	162	36.2
Belgium	28	48.4	Panama	73	43.9	Fiji	118	40.0	Chad	163	35.7
Netherlands	29	48.2	Venezuela	74	43.9	El Salvador	119	39.8	Syria	164	35.5
Peru	30	48.0	Armenia	75	43.8	Zambia	120	39.8	Pakistan	165	35.3
Romania	31	47.7	Albania	76	43.8	Lebanon	121	39.8	Afghanistan	166	35.1
USA	32	47.6	Nepal	77	43.6	St. Kitts and Nevis	122	39.6	Sao Tome and Principe	167	34.3
Malaysia	33	47.4	Belize	78	43.6	Sierra Leone	123	39.5	Djibouti	168	34.0
Costa Rica	34	47.4	Democratic Republic o	79	43.5	Nigeria	124	39.3	Central African Republ	169	33.6
Hungary	35	47.3	Moldova	80	43.5	Cambodia	125	39.2	Iraq	170	33.4
Uruguay	36	47.3	Cameroon	81	43.4	Senegal	126	39.2	Barbados	171	33.3
China	37	47.2	Timor-Leste	82	43.4	Sri Lanka	127	39.0	Zimbabwe	172	33.2
Georgia	38	47.1	Gabon	83	43.3	Libya	128	39.0	Mauritania	173	33.1
Spain	39	46.9	Ethiopia	84	43.2	Botswana	129	38.9	Burundi	174	32.8
South Korea	40	46.9	Macedonia	85	43.2	Lesotho	130	38.9	Grenada	175	32.8
Brazil	41	46.9	Montenegro	86	43.1	Benin	131	38.7	Eritrea	176	32.7
Paraguay	42	46.7	Ecuador	87	43.1	Mali	132	38.6	St. Lucia	177	32.6
Colombia	43	46.7	Turkey	88	43.0	Tonga	133	38.6	Haiti	178	32.6
Italy	44	46.6	Tajikistan	89	42.7	Jordan	134	38.5	Antigua and Barbuda	179	31.0
Russia	45	46.6	Cote d'Ivoire	90	42.5	Niger	135	38.3	Yemen	180	28.6

Natural Capital Sub-Index

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
Democratic Republic of C	1	70.9	Mali	46	53.5	Togo	91	45.3	Rwanda	136	36.8
Sweden	2	67.6	Austria	47	53.5	Dominica	92	45.2	Sri Lanka	137	36.5
Canada	3	66.5	Timor-Leste	48	53.3	Indonesia	93	44.8	Syria	138	36.4
Finland	4	66.3	Guinea-Bissau	49	53.0	Vanuatu	94	44.8	Egypt	139	36.2
Suriname	5	65.9	Slov enia	50	52.9	Ukraine	95	44.6	Benin	140	35.6
Estonia	6	65.4	Chile	51	52.5	Albania	96	44.2	Oman	141	35.6
Cameroon	7	65.4	Switzerland	52	52.4	Japan	97	44.2	Kenya	142	35.4
Bhutan	8	65.3	Nicaragua	53	52.1	Spain	98	44.1	Grenada	143	35.3
Guyana	9	64.7	Australia	54	52.0	Lesotho	99	43.4	Tonga	144	35.3
Laos	10	63.8	Georgia	55	51.9	Czech Republic	100	43.0	Niger	145	35.1
Republic of Congo	11	63.0	Bosnia and Herzegov ina	56	51.6	Comoros	101	43.0	Senegal	146	35.1
Papua New Guinea	12	62.8	Slov akia	57	51.3	Malawi	102	42.8	Botswana	147	35.0
Equatorial Guinea	13	62.0	Fiji	58	51.3	Tajikistan	103	42.8	Iran	148	35.0
New Zealand	14	62.0	Zambia	59	51.2	Trinidad and Tobago	104	42.6	Saudi Arabia	149	34.9
Norway	15	62.0	Denmark	60	51.0	Nigeria	105	42.5	Belgium	150	34.8
Cote d'Iv oire	16	61.9	Liechtenstein	61	50.5	Uzbekistan	106	42.2	Burundi	151	34.7
Russia	17	61.1	Ecuador	62	50.5	Cuba	107	42.2	Djibouti	152	34.6
Paraguay	18	60.9	Mozambique	63	50.2	St. Kitts and Nev is	108	42.1	Thailand	153	34.6
Brazil	19	60.2	Malaysia	64	49.9	Libya	109	42.1	South Korea	154	34.4
Latv ia	20	60.2	Portugal	65	49.8	Chad	110	41.9	China	155	34.3
Venezuela	21	59.9	Liberia	66	49.5	Namibia	111	41.8	Philippines	156	34.0
Lithuania	22	59.6	Bahamas	67	49.2	Cape Verde	112	41.6	Turkmenistan	157	33.6
Central African Republic	23	59.5	Mexico	68	49.2	Guatemala	113	41.5	Qatar	158	33.0
Iceland	24	59.5	Sudan	69	49.0	Burkina Faso	114	40.6	Iraq	159	33.0
Burma	25	59.3	Montenegro	70	48.9	Vietnam	115	40.3	United Arab Emirates	160	32.8
Uruguay	26	58.8	Romania	71	48.7	El Salv ador	116	40.3	Maldiv es	161	32.0
Belarus	27	58.7	Brunei	72	48.6	Honduras	117	39.9	Israel	162	31.9
Peru	28	58.0	Serbia	73	48.4	Uganda	118	39.9	Eritrea	163	30.7
Sierra Leone	29	57.9	Samoa	74	48.4	Algeria	119	39.8	Antigua and Barbuda	164	30.5
Angola	30	57.9	Luxembourg	75	48.2	Germany	120	39.8	Barbados	165	30.5
USA	31	57.2	Greece	76	48.1	Zimbabwe	121	39.7	Kuwait	166	29.6
Bulgaria	32	57.2	Poland	77	48.1	Netherlands	122	39.6	Pakistan	167	29.5
Guinea	33	56.9	Ethiopia	78	47.9	United Kingdom	123	39.5	Azerbaijan	168	29.0
Argentina	34	56.6	Costa Rica	79	47.7	Armenia	124	38.9	Lebanon	169	28.6
Boliv ia	35	56.4	Gambia	80	47.0	Mongolia	125	38.7	Malta	170	28.5
France	36	56.3	Ghana	81	46.8	Sao Tome and Principe	126	38.6	Yemen	171	28.4
Colombia	37	56.2	Swaziland	82	46.7	Mauritania	127	38.6	Tunisia	172	28.3
Belize	38	56.0	Kazakhstan	83	46.5	Seychelles	128	38.5	India	173	28.2
Madagascar	39	55.5	Italy	84	46.4	Mauritius	129	38.2	Haiti	174	27.8
Solomon Islands	40	55.3	Dominican Republic	85	46.3	Turkey	130	37.7	Singapore	175	26.3
Croatia	41	55.2	Cambodia	86	46.0	Afghanistan	131	37.5	Jamaica	176	26.2
Gabon	42	54.5	Macedonia	87	45.9	St. Lucia	132	37.4	Bahrain	177	24.9
Ireland	43	54.0	Nepal	88	45.9	South Africa	133	37.4	Cyprus	178	24.7
Tanzania	44	53.9	Kyrgistan	89	45.4	Moldov a	134	37.2	Bangladesh	179	24.3
Panama	45	53.6	Hungary	90	45.4	Morocco	135	36.9	Jordan	180	20.2

Resource Intensity Sub-Index

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
Republic of Congo	1	61.4	Burma	46	47.4	Portugal	91	42.4	Libya	136	37.9
Mozambique	2	61.3	Uruguay	47	47.1	Iceland	92	42.4	Liechtenstein	137	37.6
Ethiopia	3	59.1	Rwanda	48	47.0	Fiji	93	42.1	India	138	37.6
Kenya	4	58.9	Malawi	49	46.8	Laos	94	42.1	St. Kitts and Nevis	139	37.4
Democratic Republic o	5	58.2	Burkina Faso	50	46.6	Botswana	95	42.1	Algeria	140	37.4
Angola	6	57.8	Papua New Guinea	51	46.4	Guyana	96	42.1	Slovenia	141	37.2
Tanzania	7	57.8	Gambia	52	46.4	Mongolia	97	42.0	Dominican Republic	142	36.7
Nigeria	8	57.5	Panama	53	46.4	Djibouti	98	42.0	Canada	143	36.7
Nepal	9	56.7	Switzerland	54	46.2	Cuba	99	42.0	South Africa	144	36.4
Togo	10	56.0	Lithuania	55	46.1	Qatar	100	41.7	Thailand	145	36.2
Zambia	11	55.3	Chad	56	46.0	Afghanistan	101	41.4	Mauritania	146	35.8
Cote d'Ivoire	12	55.1	Peru	57	46.0	Spain	102	41.4	United Arab Emirates	147	35.7
Cameroon	13	54.8	Burundi	58	45.9	Finland	103	41.4	Oman	148	35.6
Nicaragua	14	54.7	Moldova	59	45.7	Samoa	104	41.3	Germany	149	35.4
Haiti	15	54.6	Croatia	60	45.6	Syria	105	41.2	Iraq	150	35.3
Honduras	16	54.4	Bangladesh	61	45.6	Brunei	106	41.1	Macedonia	151	35.0
Guatemala	17	54.4	Tunisia	62	45.5	Vanuatu	107	40.9	Russia	152	34.8
Jamaica	18	53.8	Romania	63	45.4	Australia	108	40.9	Lebanon	153	34.6
Equatorial Guinea	19	53.8	Madagascar	64	45.4	Solomon Islands	109	40.9	Morocco	154	34.5
Benin	20	53.1	Slovakia	65	45.3	Belgium	110	40.7	Bhutan	155	34.4
Ireland	21	52.7	Brazil	66	45.3	Mali	111	40.7	Ukraine	156	34.4
Gabon	22	52.3	Indonesia	67	45.1	Austria	112	40.7	Singapore	157	34.4
Ghana	23	52.0	Sierra Leone	68	44.8	Mexico	113	40.6	Turkmenistan	158	34.3
Lesotho	24	51.9	Senegal	69	44.8	Seychelles	114	40.4	Bahamas	159	34.3
Costa Rica	25	51.6	Cape Verde	70	44.6	Mauritius	115	40.1	Netherlands	160	33.9
Sweden	26	51.5	Armenia	71	44.6	Italy	116	40.1	USA	161	33.8
Sao Tome and Principe	27	51.2	Pakistan	72	44.5	Poland	117	40.1	Japan	162	33.7
Philippines	28	51.0	Cyprus	73	44.4	Central African Republ	118	40.0	Kuwait	163	33.6
Namibia	29	50.9	Timor-Leste	74	43.8	Venezuela	119	40.0	Malaysia	164	33.3
Bolivia	30	50.7	Tonga	75	43.7	Swaziland	120	40.0	Bahrain	165	33.1
Cambodia	31	50.3	Georgia	76	43.4	Maldives	121	39.8	China	166	32.7
Colombia	32	50.2	Dominica	77	43.4	Czech Republic	122	39.6	Grenada	167	32.3
Latvia	33	50.1	Albania	78	43.4	Sri Lanka	123	39.6	Serbia	168	32.3
El Salvador	34	50.0	Greece	79	43.3	New Zealand	124	39.5	Iran	169	32.2
Luxembourg	35	50.0	Guinea	80	43.2	Belarus	125	39.4	Vietnam	170	32.2
Belize	36	49.8	Sudan	81	43.2	Argentina	126	39.4	Turkey	171	32.1
Comoros	37	49.6	Yemen	82	43.1	Uzbekistan	127	39.4	St. Lucia	172	32.0
Eritrea	38	49.5	Liberia	83	43.1	Hungary	128	39.4	Bulgaria	173	31.9
United Kingdom	39	49.3	Trinidad and Tobago	84	43.1	Kyrgistan	129	39.4	Montenegro	174	31.9
Uganda	40	49.2	Guinea-Bissau	85	43.0	Jordan	130	39.3	Kazakhstan	175	31.4
Niger	41	49.1	Chile	86	43.0	Suriname	131	39.3	Barbados	176	30.3
Denmark	42	48.7	Bosnia and Herzegovin	87	43.0	Azerbaijan	132	39.1	Antigua and Barbuda	177	30.2
Paraguay	43	48.3	Zimbabwe	88	42.8	Ecuador	133	39.0	Egypt	178	30.0
Norway	44	48.3	France	89	42.7	Israel	134	38.8	Saudi Arabia	179	26.9
Tajikistan	45	47.7	Malta	90	42.6	Estonia	135	37.9	South Korea	180	25.1

Social Capital Sub-Index

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
Norway	1	63.3	Italy	46	47.8	Indonesia	91	39.2	Gambia	136	33.7
Luxembourg	2	63.0	Moldov a	47	47.8	Laos	92	39.2	Mali	137	33.6
Iceland	3	61.8	Maldiv es	48	47.6	Bangladesh	93	39.2	Rwanda	138	33.6
Germany	4	60.6	Montenegro	49	47.4	Bahrain	94	39.1	Trinidad and Tobago	139	33.4
Denmark	5	60.4	China	50	47.2	Thailand	95	39.0	Colombia	140	33.4
Slov enia	6	60.1	Kyrgistan	51	47.2	Niger	96	38.6	Morocco	141	32.9
Finland	7	60.0	Malta	52	47.0	Philippines	97	38.6	Venezuela	142	32.8
Belgium	8	60.0	Armenia	53	46.7	Peru	98	38.4	Benin	143	32.8
Netherlands	9	59.5	Ukraine	54	46.7	Sierra Leone	99	38.4	Gabon	144	32.8
Sweden	10	59.3	United Arab Emirates	55	46.5	Mozambique	100	38.3	Chad	145	32.8
Austria	11	58.6	Libya	56	46.3	Suriname	101	38.1	Cape Verde	146	32.5
Japan	12	58.4	Azerbaijan	57	46.3	Pakistan	102	38.0	Equatorial Guinea	147	32.5
Switzerland	13	58.2	Tajikistan	58	46.3	Tonga	103	38.0	Kenya	148	32.4
Kuwait	14	57.2	Uzbekistan	59	46.1	Ethiopia	104	37.6	Zambia	149	32.2
Liechtenstein	15	57.1	Hungary	60	45.6	Belize	105	37.4	Uganda	150	32.1
Qatar	16	55.8	Greece	61	45.1	Dominican Republic	106	37.4	Guinea-Bissau	151	32.0
Oman	17	55.2	Seychelles	62	45.1	Bahamas	107	36.9	Iran	152	31.7
Spain	18	55.0	Algeria	63	45.1	Burma	108	36.6	Zimbabwe	153	31.4
Slov akia	19	54.3	Argentina	64	44.7	Nicaragua	109	36.6	Cote d'Iv oire	154	31.3
France	20	53.9	South Korea	65	43.5	India	110	36.6	Botswana	155	31.3
Czech Republic	21	53.0	Malaysia	66	43.4	South Africa	111	36.5	Comoros	156	31.1
Croatia	22	52.5	Israel	67	43.1	Namibia	112	36.2	Angola	157	30.8
Canada	23	52.4	Costa Rica	68	43.1	Liberia	113	36.2	Sao Tome and Principe	158	30.2
Ireland	24	52.4	Cuba	69	42.8	USA	114	36.1	Samoa	159	30.2
Mongolia	25	52.3	Macedonia	70	42.3	Afghanistan	115	35.9	Togo	160	30.0
United Kingdom	26	52.2	Latv ia	71	42.0	Cameroon	116	35.6	Chile	161	29.9
Brunei	27	51.1	Georgia	72	41.9	Guinea	117	35.5	Republic of Congo	162	29.4
Romania	28	50.7	Turkey	73	41.9	Brazil	118	35.5	Antigua and Barbuda	163	29.3
Timor-Leste	29	50.7	Bhutan	74	41.9	Cambodia	119	35.3	Vanuatu	164	29.3
Jordan	30	50.5	Nepal	75	41.8	Sri Lanka	120	35.2	Yemen	165	28.8
Poland	31	50.4	Albania	76	41.7	Madagascar	121	35.0	Barbados	166	28.8
Lebanon	32	50.2	Mexico	77	41.6	Mauritius	122	35.0	Guyana	167	28.7
Portugal	33	50.2	Turkmenistan	78	41.0	Boliv ia	123	35.0	Djibouti	168	28.7
Singapore	34	50.0	Vietnam	79	40.9	Tanzania	124	35.0	Democratic Republic o	169	28.5
Estonia	35	50.0	Uruguay	80	40.9	El Salv ador	125	34.9	Guatemala	170	28.3
New Zealand	36	49.9	Bulgaria	81	40.7	Russia	126	34.8	Fiji	171	28.2
Serbia	37	49.7	Papua New Guinea	82	40.7	Paraguay	127	34.7	Grenada	172	28.2
Kazakhstan	38	49.6	Panama	83	40.7	St. Kitts and Nev is	128	34.6	Eritrea	173	28.2
Bosnia and Herzegov in	39	49.6	Ghana	84	40.2	Malawi	129	34.6	Sudan	174	27.9
Tunisia	40	49.4	Senegal	85	40.1	Iraq	130	34.5	Honduras	175	27.5
Cyprus	41	49.3	Ecuador	86	40.1	Burundi	131	34.2	Haiti	176	26.0
Saudi Arabia	42	49.0	Egypt	87	40.0	Mauritania	132	34.1	Central African Republ	177	25.6
Australia	43	48.5	Syria	88	39.6	Solomon Islands	133	34.1	Swaziland	178	25.5
Belarus	44	48.3	Burkina Faso	89	39.3	Lesotho	134	33.9	Nigeria	179	24.8
Lithuania	45	47.8	Dominica	90	39.2	Jamaica	135	33.9	St. Lucia	180	18.5

Intellectual Capital Sub-Index

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
South Korea	1	75.2	Venezuela	46	45.7	Mexico	91	37.3	Honduras	136	29.4
Sweden	2	70.8	Kyrgistan	47	45.6	Armenia	92	37.3	Rwanda	137	28.6
Slovenia	3	68.0	Belarus	48	45.3	Tajikistan	93	37.2	Panama	138	28.3
Japan	4	65.7	Spain	49	45.2	United Arab Emirates	94	36.9	Nigeria	139	28.2
Finland	5	64.2	Brazil	50	44.9	Ghana	95	36.9	Mali	140	28.1
Germany	6	63.7	Latvia	51	44.8	Suriname	96	36.8	Nicaragua	141	28.0
China	7	63.0	Vietnam	52	44.7	Vanuatu	97	36.7	Benin	142	27.2
Denmark	8	62.9	Costa Rica	53	44.7	Philippines	98	36.7	Sao Tome and Principe	143	27.0
Norway	9	62.4	Bulgaria	54	44.6	Samoa	99	36.6	Niger	144	26.9
Singapore	10	62.3	Cyprus	55	43.7	Egypt	100	36.6	Lesotho	145	26.4
Malta	11	62.2	Barbados	56	43.6	Cape Verde	101	36.4	Burkina Faso	146	26.4
Switzerland	12	61.1	Serbia	57	43.6	Timor-Leste	102	36.3	Papua New Guinea	147	26.3
Netherlands	13	60.7	Paraguay	58	43.4	Turkmenistan	103	36.2	Cote d'Ivoire	148	26.2
United Kingdom	14	60.4	Chile	59	43.4	Swaziland	104	36.1	Haiti	149	25.8
Israel	15	60.0	Mongolia	60	43.4	Ecuador	105	35.9	Ethiopia	150	25.4
Liechtenstein	16	59.3	Oman	61	43.2	South Africa	106	35.7	Sudan	151	24.9
Iceland	17	58.7	Peru	62	43.1	Dominica	107	35.5	Djibouti	152	24.6
Austria	18	58.2	Uzbekistan	63	42.6	Algeria	108	35.2	Iraq	153	24.1
USA	19	57.9	Jordan	64	42.6	Qatar	109	35.1	Cambodia	154	24.0
New Zealand	20	57.8	Bahamas	65	42.4	Seychelles	110	35.0	Chad	155	23.9
Czech Republic	21	57.1	Moldova	66	42.1	Trinidad and Tobago	111	34.8	Sierra Leone	156	23.8
Belgium	22	56.9	Botswana	67	42.1	Senegal	112	34.7	Mozambique	157	23.3
France	23	56.4	Georgia	68	42.0	Romania	113	34.7	Equatorial Guinea	158	22.8
Ireland	24	55.9	Macedonia	69	41.9	Kenya	114	34.5	Angola	159	22.3
Malaysia	25	54.4	Albania	70	41.8	Gabon	115	34.4	Gambia	160	22.3
Lithuania	26	54.4	Tunisia	71	41.5	India	116	34.4	Guinea-Bissau	161	22.1
Portugal	27	54.2	Mauritius	72	41.3	Laos	117	34.4	Cameroon	162	21.7
Luxembourg	28	52.5	Bahrain	73	41.0	Bhutan	118	34.3	Mauritania	163	21.5
Estonia	29	51.9	Morocco	74	40.9	Uruguay	119	34.2	Tanzania	164	21.4
Hungary	30	51.5	Saudi Arabia	75	40.9	Azerbaijan	120	33.8	Burundi	165	21.4
Poland	31	51.1	Argentina	76	40.6	Indonesia	121	33.5	Liberia	166	21.3
Croatia	32	50.8	Maldives	77	40.3	Guyana	122	32.2	Afghanistan	167	21.2
Australia	33	50.5	Jamaica	78	40.1	Republic of Congo	123	32.1	Bangladesh	168	21.1
Canada	34	50.5	Fiji	79	39.7	El Salvador	124	31.7	Togo	169	20.9
Ukraine	35	50.3	St. Kitts and Nevis	80	39.5	Grenada	125	31.7	Democratic Republic o	170	20.2
Slovakia	36	49.9	Colombia	81	39.1	Sri Lanka	126	31.6	Eritrea	171	19.8
Brunei	37	49.9	Namibia	82	39.0	Bosnia and Herzegovin	127	31.4	Uganda	172	19.5
Cuba	38	49.8	Kuwait	83	38.8	Malawi	128	31.0	Guatemala	173	19.2
Italy	39	49.3	Iran	84	38.7	Antigua and Barbuda	129	30.9	Guinea	174	18.8
Kazakhstan	40	49.1	Montenegro	85	38.7	Burma	130	30.6	Zambia	175	17.9
Greece	41	49.0	Belize	86	38.0	Nepal	131	29.8	Zimbabwe	176	17.8
Russia	42	48.9	Dominican Republic	87	37.8	Comoros	132	29.7	Yemen	177	17.7
Thailand	43	48.8	St. Lucia	88	37.5	Libya	133	29.6	Central African Republ	178	15.4
Turkey	44	48.4	Tonga	89	37.4	Syria	134	29.5	Madagascar	179	15.3
Lebanon	45	48.0	Bolivia	90	37.4	Solomon Islands	135	29.4	Pakistan	180	15.0

Governance Sub-Index

Country	Rank	Score	Country	Rank	Score	Country	Rank	Score	Country	Rank	Score
Estonia	1	62.6	Sri Lanka	46	52.1	Serbia	91	46.2	Lesotho	136	39.0
Indonesia	2	62.6	Israel	47	51.8	Ethiopia	92	46.2	Libya	137	38.9
Norway	3	61.3	Kuwait	48	51.5	Malta	93	45.7	Fiji	138	38.8
Czech Republic	4	61.2	Armenia	49	51.4	Morocco	94	45.3	Tonga	139	38.5
Germany	5	60.7	Macedonia	50	51.0	Cape Verde	95	45.1	Cote d'Ivoire	140	38.1
China	6	58.9	Croatia	51	51.0	Turkmenistan	96	45.0	Guinea-Bissau	141	37.6
Romania	7	58.9	Oman	52	50.9	Moldova	97	44.8	Togo	142	37.5
Slovakia	8	58.3	Lithuania	53	50.9	Algeria	98	44.7	St. Lucia	143	37.4
New Zealand	9	58.1	Singapore	54	50.7	Benin	99	44.6	Lebanon	144	37.4
Austria	10	57.9	Panama	55	50.4	Botswana	100	44.3	Republic of Congo	145	37.3
Japan	11	57.8	Bahrain	56	50.1	St. Kitts and Nevis	101	44.1	Mali	146	37.0
Latvia	12	57.8	Saudi Arabia	57	50.1	Cyprus	102	44.1	Belize	147	36.9
Iceland	13	57.8	Costa Rica	58	50.1	Kyrgistan	103	44.0	Mozambique	148	36.9
Mauritius	14	57.4	Bosnia and Herzegovin	59	50.0	Nepal	104	44.0	South Africa	149	36.7
Liechtenstein	15	57.3	Iran	60	50.0	Dominica	105	43.9	Grenada	150	36.5
Denmark	16	57.2	Mongolia	61	49.9	Ghana	106	43.9	Nicaragua	151	35.8
Poland	17	56.4	Ecuador	62	49.8	Nigeria	107	43.6	Mauritania	152	35.5
Georgia	18	56.2	Philippines	63	49.7	Kenya	108	43.5	Eritrea	153	35.3
South Korea	19	56.2	Argentina	64	49.7	Namibia	109	43.4	Guyana	154	35.3
Malaysia	20	56.0	Pakistan	65	49.7	Guatemala	110	42.9	Jamaica	155	34.9
Slovenia	21	55.8	France	66	49.6	Tanzania	111	42.8	Zimbabwe	156	34.5
United Arab Emirates	22	55.7	Bolivia	67	49.5	Sudan	112	42.8	Antigua and Barbuda	157	34.1
Sweden	23	55.5	Belgium	68	49.5	Gabon	113	42.7	Chad	158	33.8
Qatar	24	55.4	Thailand	69	49.5	Zambia	114	42.4	Barbados	159	33.2
Luxembourg	25	55.2	Bulgaria	70	49.4	El Salvador	115	42.3	Angola	160	32.9
Uruguay	26	55.2	Italy	71	49.4	Niger	116	42.0	Timor-Leste	161	32.9
Turkey	27	55.1	Suriname	72	49.1	Brunei	117	41.8	Sierra Leone	162	32.8
Colombia	28	54.8	Spain	73	49.1	Laos	118	41.8	Equatorial Guinea	163	32.6
Ireland	29	54.8	Finland	74	49.0	Senegal	119	41.2	Malawi	164	32.6
Hungary	30	54.7	Dominican Republic	75	49.0	Maldives	120	41.0	Papua New Guinea	165	32.5
Peru	31	54.7	Bhutan	76	48.9	Venezuela	121	40.9	Samoa	166	32.5
Kazakhstan	32	54.4	Montenegro	77	48.8	Cambodia	122	40.5	Madagascar	167	32.3
Belarus	33	54.4	Trinidad and Tobago	78	48.8	Greece	123	40.4	Gambia	168	32.2
Chile	34	54.3	Brazil	79	48.5	Djibouti	124	40.4	Honduras	169	31.4
Switzerland	35	54.3	Egypt	80	48.1	Bahamas	125	40.2	Comoros	170	31.4
Bangladesh	36	54.2	Canada	81	48.1	Uganda	126	40.2	Burkina Faso	171	31.1
Australia	37	53.7	Burma	82	48.0	Jordan	127	40.1	Liberia	172	30.8
Vietnam	38	53.6	India	83	48.0	Democratic Republic o	128	39.9	Syria	173	30.6
United Kingdom	39	53.4	Portugal	84	47.9	Iraq	129	39.8	Guinea	174	30.0
Russia	40	53.2	Albania	85	47.7	Cameroon	130	39.7	Haiti	175	28.7
USA	41	53.0	Netherlands	86	47.4	Tajikistan	131	39.4	Burundi	176	28.1
Uzbekistan	42	52.8	Ukraine	87	46.9	Rwanda	132	39.3	Central African Republ	177	27.6
Azerbaijan	43	52.5	Tunisia	88	46.6	Afghanistan	133	39.2	Yemen	178	25.1
Mexico	44	52.1	Paraguay	89	46.5	Vanuatu	134	39.1	Solomon Islands	179	24.7
Cuba	45	52.1	Seychelles	90	46.3	Swaziland	135	39.1	Sao Tome and Principe	180	24.3

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The Sustainable Competitiveness Index

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