

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2019 rank
99	108	Low	CSA	9.3	33.4	3,133.4	100
Score/Value				Score/Value			
Rank				Rank			
INSTITUTIONS.....				47.0	118		
1.1	Political environment.....			36.7	126		
1.1.1	Political and operational stability*.....			58.9	104		
1.1.2	Government effectiveness*.....			25.6	128		
1.2	Regulatory environment.....			43.3	118	◇	
1.2.1	Regulatory quality*.....			14.1	126	◇	
1.2.2	Rule of law*.....			13.2	130	◇	
1.2.3	Cost of redundancy dismissal, salary weeks.....			21.7	92		
1.3	Business environment.....			60.8	105		
1.3.1	Ease of starting a business*.....			93.2	34	◆	
1.3.2	Ease of resolving insolvency*.....			28.4	122	◇	
HUMAN CAPITAL & RESEARCH.....				22.8	87	◆	
2.1	Education.....			44.7	[70]		
2.1.1	Expenditure on education, % GDP.....			5.2	35	●	
2.1.2	Government funding/pupil, secondary, % GDP/cap.....			n/a	n/a		
2.1.3	School life expectancy, years.....			11.4	98		
2.1.4	PISA scales in reading, maths, & science.....			n/a	n/a		
2.1.5	Pupil-teacher ratio, secondary.....			15.4	78	◆	
2.2	Tertiary education.....			23.3	86	◆	
2.2.1	Tertiary enrolment, % gross.....			31.3	81	◆	
2.2.2	Graduates in science & engineering, %.....			22.0	57	●	
2.2.3	Tertiary inbound mobility, %.....			0.8	91		
2.3	Research & development (R&D).....			0.6	112		
2.3.1	Researchers, FTE/mn pop.....			n/a	n/a		
2.3.2	Gross expenditure on R&D, % GDP.....			0.1	107	◇	
2.3.3	Global R&D companies, avg. exp. top 3, mn \$US.....			0.0	42	◇	
2.3.4	QS university ranking, average score top 3*.....			0.0	77	◇	
INFRASTRUCTURE.....				21.8	123		
3.1	Information & communication technologies (ICTs)....			31.2	119		
3.1.1	ICT access*.....			37.0	111	◆	
3.1.2	ICT use*.....			15.0	120		
3.1.3	Government's online service*.....			34.0	116		
3.1.4	E-participation*.....			38.8	114		
3.2	General infrastructure.....			13.4	122		
3.2.1	Electricity output, kWh/mn pop.....			2,030.7	77	◆	
3.2.2	Logistics performance*.....			12.6	118		
3.2.3	Gross capital formation, % GDP.....			19.6	99		
3.3	Ecological sustainability.....			20.8	95		
3.3.1	GDP/unit of energy use.....			7.8	82		
3.3.2	Environmental performance*.....			38.2	95	◆	
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP.....			0.4	85	◆	
MARKET SOPHISTICATION.....				48.4	60	◆	
4.1	Credit.....			54.0	22	◆	
4.1.1	Ease of getting credit*.....			90.0	10	◆	
4.1.2	Domestic credit to private sector, % GDP.....			12.3	123		
4.1.3	Microfinance gross loans, % GDP.....			5.7	2	◆	
4.2	Investment.....			40.0	[60]		
4.2.1	Ease of protecting minority investors*.....			40.0	110		
4.2.2	Market capitalization, % GDP.....			n/a	n/a		
4.2.3	Venture capital deals/bn PPP\$ GDP.....			n/a	n/a		
4.3	Trade, competition, and market scale.....			51.3	109		
4.3.1	Applied tariff rate, weighted avg., %.....			5.0	91	◆	
4.3.2	Intensity of local competition*.....			61.2	104		
4.3.3	Domestic market scale, bn PPP\$.....			33.4	116		
BUSINESS SOPHISTICATION.....				15.1	[128]		
5.1	Knowledge workers.....			13.1	[117]		
5.1.1	Knowledge-intensive employment, %.....			n/a	n/a		
5.1.2	Firms offering formal training, %.....			24.3	63		
5.1.3	GERD performed by business, % GDP.....			n/a	n/a		
5.1.4	GERD financed by business, %.....			1.6	93		
5.1.5	Females employed w/advanced degrees, %.....			4.0	93	◆	
5.2	Innovation linkages.....			15.0	112		
5.2.1	University/industry research collaboration*.....			49.0	43	●	
5.2.2	State of cluster development*.....			36.8	107		
5.2.3	GERD financed by abroad, % GDP.....			0.0	100	◇	
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....			0.0	78		
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....			0.0	101	◇	
5.3	Knowledge absorption.....			17.4	[116]		
5.3.1	Intellectual property payments, % total trade.....			0.0	118	◇	
5.3.2	High-tech imports, % total trade.....			n/a	n/a		
5.3.3	ICT services imports, % total trade.....			0.3	119		
5.3.4	FDI net inflows, % GDP.....			3.0	53	●	
5.3.5	Research talent, % in business enterprise.....			n/a	n/a		
KNOWLEDGE & TECHNOLOGY OUTPUTS....				16.4	77	◆	
6.1	Knowledge creation.....			17.7	55	◆	
6.1.1	Patents by origin/bn PPP\$ GDP.....			0.1	118		
6.1.2	PCT patents by origin/bn PPP\$ GDP.....			0.0	100	◇	
6.1.3	Utility models by origin/bn PPP\$ GDP.....			3.7	5	◆	
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....			2.4	112	◇	
6.1.5	Citable documents H-index.....			1.2	130	◇	
6.2	Knowledge impact.....			15.8	95		
6.2.1	Growth rate of PPP\$ GDP/worker, %.....			4.6	13	◆	
6.2.2	New businesses/th pop. 15-64.....			0.2	114		
6.2.3	Computer software spending, % GDP.....			0.0	93	◆	
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....			0.1	131	◇	
6.2.5	High- and medium-high-tech manufacturing, %.....			2.8	104	◇	
6.3	Knowledge diffusion.....			15.7	[90]		
6.3.1	Intellectual property receipts, % total trade.....			n/a	n/a		
6.3.2	High-tech net exports, % total trade.....			n/a	n/a		
6.3.3	ICT services exports, % total trade.....			0.3	112		
6.3.4	FDI net outflows, % GDP.....			0.6	71		
CREATIVE OUTPUTS.....				10.4	113		
7.1	Intangible assets.....			13.2	120		
7.1.1	Trademarks by origin/bn PPP\$ GDP.....			6.1	114		
7.1.2	Global brand value, top 5,000, % GDP.....			0.0	80	◇	
7.1.3	Industrial designs by origin/bn PPP\$ GDP.....			0.0	120	◇	
7.1.4	ICTs & organizational model creation*.....			44.4	99		
7.2	Creative goods and services.....			8.6	[85]		
7.2.1	Cultural & creative services exports, % total trade.....			0.0	95		
7.2.2	National feature films/mn pop. 15-69.....			1.8	73		
7.2.3	Entertainment & Media market/th pop. 15-69.....			n/a	n/a		
7.2.4	Printing and other media, % manufacturing.....			1.1	52	●	
7.2.5	Creative goods exports, % total trade.....			n/a	n/a		
7.3	Online creativity.....			6.9	99	◆	
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....			0.0	128		
7.3.2	Country-code TLDs/th pop. 15-69.....			0.4	103		
7.3.3	Wikipedia edits/mn pop. 15-69.....			24.4	100		
7.3.4	Mobile app creation/bn PPP\$ GDP.....			n/a	n/a		

NOTES: ● indicates a strength; ○ a weakness; ◆ an income group strength; ◇ an income group weakness; * an index; † a survey question. ⊕ indicates that the economy's data are older than the base year; see Appendix II for details, including the year of the data, at <http://globalinnovationindex.org>. Square brackets [] indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level.