



IMD World Competitiveness Yearbook 2021

COUNTRY PROFILE

MEXICO



OVERALL PERFORMANCE (64 countries)



CHALLENGES IN 2021

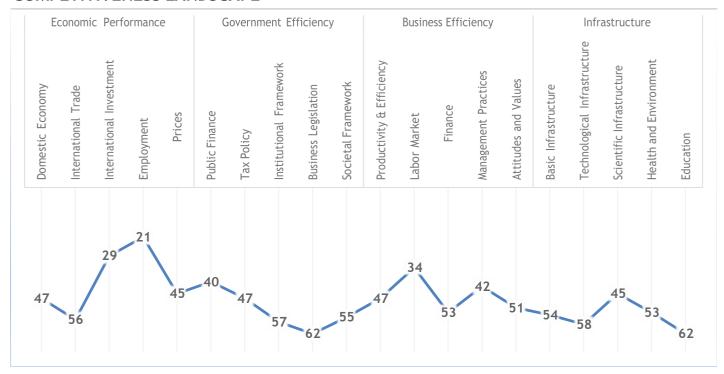
- Implement fast economic, social and health policies for an
 - accelerated recovery from the COVID-19 pandemic effects.
- To improve the business environment, less uncertainty and better justice, security and democracy framework.
- Promote a higher GDP growth (3 to 4%) by promoting internal market growth through innovation: 'Mexican Markets for Mexican Products'.
- Improve the relationship with relevant economies in the world.
- Promote structural reforms on education and clean energy.

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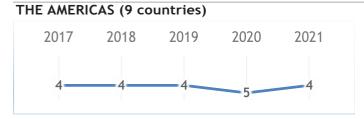
Center for Strategic Studies for Competitiveness

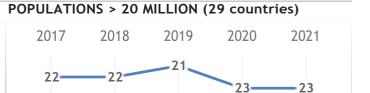
BASIC FACTS	I	Rank
Capital	Mexico City	
Land area (square km '000)	1,964 2020	
Exchange Rate (per \$)	21.486 ²⁰²⁰	
Population - market size (millions)	127.52 ²⁰²⁰	7
Gross Domestic Product (GDP) (US\$ billions)	1,076.2 2020	15
GDP (PPP) per capita (US\$)	19,171 ²⁰²⁰	51
Real GDP growth (%)	-8.2 ²⁰²⁰	54
Consumer price inflation (%)	3.40 ²⁰²⁰	56
Unemployment rate (%)	4.56 ²⁰²⁰	17
Labor force (millions)	55.88 ²⁰²⁰	8
Current account balance (% of GDP)	2.47 ²⁰²⁰	27
Direct investment stocks inward (\$bn)	628.5 ²⁰¹⁹	15
Direct investment flows inward (% of GDP)	2.33 ²⁰¹⁹	31

COMPETITIVENESS LANDSCAPE



PEER GROUPS RANKINGS





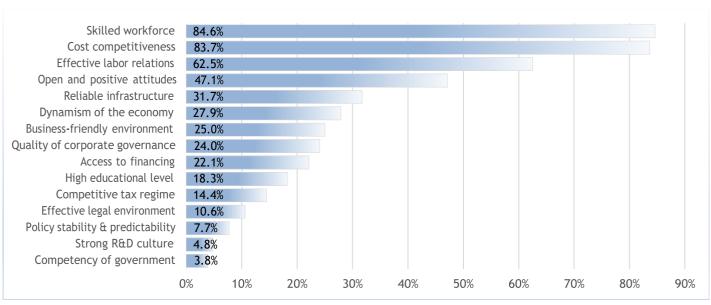
COMPETITIVENESS EVOLUTION

The criteria below highlight the 15 biggest Improvements and the 15 biggest Declines in the overall performance of the economy. They are determined by the largest percentage changes in the value of each criterion from one yearbook to the next.

IMPROVEMENTS	WCY 2020	WCY 2021	DECLINES	WCY 2020	WCY 2021
1.2.02 Current account balance	-0.19	2.47	1.1.14 Real GDP growth	-0.1	-8.2
1.4.08 Long-term unemployment	0.04	0.01	1.1.15 Real GDP growth per capita	-1.08	-9.14
4.2.07 Internet users	445	613	2.3.08 Exchange rate stability	0.014	0.098
2.1.08 Tax evasion	2.78	3.56	1.1.18 Gross fixed capital formation - real growth	-4.78	-18.06
2.3.13 Bribery and corruption	1.41	1.65	1.4.04 Employment - long-term growth	3.81	-1.52
1.1.13 Economic complexity index	1.10	1.29	3.2.14 Labor force long-term growth	2.95	-0.46
4.3.18 Number of patents in force	7.4	8.4	4.5.09 Student mobility inbound	0.20	0.06
2.5.13 Unemployment rate - gender ratio	1.03	0.91	2.1.02 Government budget surplus/deficit (%)	-2.83	-4.56
3.3.01 Banking sector assets	55.33	61.19	4.3.05 Business expenditure on R&D (%)	0.15	0.06
3.4.10 Social responsibility	5.10	5.63	1.2.12 Exports of commercial services (\$bn)	30.05	16.94
3.4.01 Agility of companies	5.37	5.90	2.4.09 State ownership of enterprises	4.79	3.03
4.4.26 Pollution problems	3.48	3.79	1.5.04 Office rent	498	678
2.3.07 Foreign currency reserves per capita	1,448	1,561	1.4.07 Unemployment rate	3.37	4.56
3.4.06 Auditing and accounting practices	6.37	6.85	1.2.13 Exports of commercial services (%)	2.39	1.57
1.5.01 Consumer price inflation	3.64	3.40	4.1.15 Energy infrastructure	5.31	3.92
·					

KEY ATTRACTIVENESS INDICATORS

From a list of 15 indicators, respondents of the Executive Opinion Survey were asked to select 5 that they perceived as the key attractiveness factors of their economy. The chart shows the percentage of responses per indicator from the highest number of responses to the lowest.



ECONOMIC PERFORMANCE

					Sub-Factor Rankings:	2020	2021
2 17	2018	2019	2020	2021	Domestic Economy	47	47
2	,,,,,,	, , , ,	, , , , , ,	71,2	International Trade	58	56
30	3	2	3	9	International Investment	32	29
				4	Employment	8	21
					Prices	18	45

GOVERNMENT EFFICIENCY

				Sub-Factor Rankings:	2020	2021
2 17 2018	2019	2020	2021	rublic i mance	4/	TU
2				Tax Policy	29	47
				Institutional Framework	56	57
515-	<u> </u>	5		Business Legislation	58	62
			5	Societal Framework	47	55

BUSINESS EFFICIENCY



Sub-Factor Rankings:	2020	2021
Productivity & Efficiency	48	47
Labor Market	22	34
Finance	52	53
Management Practices	50	42
Attitudes and Values	50	51

INFRASTRUCTURE

					Sub-Factor Rankings:	2020	2021
2 17	2018	2019	2020	2021	Basic Infrastructure	55	54
2 117	717111	7(71 7	, (1), (1)	7 () 2 1	Technological Infrastructure	57	58
_					Scientific Infrastructure	46	45
55	_ 5	— 5 —	<u> </u>	5	Health and Environment	53	53
					Education	62	62

STRENGTHS		WEAKNESSES	
Economic Performance	Rank	Economic Performance	Rank
1.4.08 Long-term unemployment	1	1.2.17 Export concentration by partner	63
1.4.09 Youth unemployment	7	1.2.13 Exports of commercial services (%)	60
1.2.08 Exports of goods (\$bn)	11	1.2.24 Terms of trade index	60
1.5.02 Cost-of-living index	13	1.1.18 Gross fixed capital formation - real growth	59
1.3.07 Direct investment stocks inward (\$bn)	15	1.3.13 Relocation threats of business	56
1.4.07 Unemployment rate	17	1.1.15 Real GDP growth per capita	56
1.3.05 Direct investment flows inward (\$bn)	17	1.5.01 Consumer price inflation	56
1.1.13 Economic complexity index	21	1.5.05 Food costs	54
1.2.09 Exports of goods (%)	22	1.1.14 Real GDP growth	54
1.3.03 Direct investment stocks abroad (\$bn)	23	1.1.19 Resilience of the economy	53
Government Efficiency	Rank	Government Efficiency	Rank
2.4.01 Tariff barriers	8	2.2.09 Employer social security tax rate	64
2.2.01 Collected total tax revenues	9	2.4.03 Public sector contracts	62
2.2.10 Employee social security tax rate	12	2.4.02 Protectionism	62
2.5.13 Unemployment rate - gender ratio	12	2.4.06 Investment incentives	62
2.1.02 Government budget surplus/deficit (%)	16	2.3.10 Adaptability of government policy	62
2.2.02 Collected personal income tax	23	2.5.02 Homicide	61
2.2.08 Consumption tax rate	23	2.3.14 Rule of law	61
2.3.05 Central bank policy	27	2.4.09 State ownership of enterprises	61
2.4.14 Start-up days	27	2.3.11 Transparency	61
2.1.04 Total general government debt (%)	31	2.4.11 Parallel economy	61
Business Efficiency	Rank	Business Efficiency	Rank
3.2.03 Remuneration in services professions	5	3.3.04 Access to financial services	61
3.1.08 Large corporations	9	3.5.05 Need for economic and social reforms	60
3.2.01 Compensation levels	9	3.3.05 Access to financial services - gender ratio	58
3.2.06 Working hours	10	3.2.17 Foreign labor force - migrant stock	58
3.2.23 International experience	17	3.3.01 Banking sector assets	57
3.4.11 Women in management	20	3.5.02 Image abroad or branding	57
3.4.14 Total early-stage Entrepreneurial Activity	21	3.2.16 Female labor force	55
3.1.07 Workforce productivity	22	3.3.06 Banking and financial services	54
3.5.01 Attitudes toward globalization	25	3.2.12 Labor force (%)	54
3.4.04 Credibility of managers	28	3.5.07 Value system	53
Infrastructure	Rank	Infrastructure	Rank
4.2.03 Mobile Telephone costs	15	4.2.17 ICT service exports	63
4.1.20 Electricity costs for industrial clients	19	4.3.20 Scientific research legislation	63
4.2.16 High-tech exports (%)	19	4.5.05 Pupil-teacher ratio (secondary education)	62
4.1.07 Population - growth	20	4.2.14 Funding for technological development	61
4.3.19 Medium- and high-tech value added	25	4.2.18 Cyber security	61
4.3.11 Graduates in Sciences	26	4.1.15 Energy infrastructure	60
4.2.11 Qualified engineers	28	4.5.09 Student mobility inbound	60
4.4.12 Energy intensity	32	4.4.27 Environmental laws	60

4.4.24 Environmental agreements	35	4.5.04 Pupil-teacher ratio (primary education)	59
		4.4.26 Pollution problems	59

1 · Economic Performance

1.1 · Domestic Economy	Value	Average R	ank `	Year
1.1.00 · Exchange Rate	21.486	859.762		2020
National currency per US\$ (average)				
1.1.01 · Gross Domestic Product (GDP)	1,076.2	1,235.5	15	2020
US\$ billions	,			
1.1.02 · GDP (PPP)	2,444.7	1,829.9	13	2020
Estimates ; US\$ billions at purchasing power parity	_,	.,		
1.1.03 · World GDP contribution	1.27	1.46	15	2020
Percentage share of world GDP in market prices	1127	1.10	1.5	
1.1.04 · Household consumption expenditure (\$bn)	685.3	673.9	15	2020
US\$ billions	003.3	0/3.7	13	
1.1.05 · Household consumption expenditure (%)	63.7	54.8	12	2020
Percentage of GDP	03.7	34.0	ΙZ	
•	427.2	240.7	40	2020
1.1.06 · Government consumption expenditure (\$bn)	137.2	219.7	18	2020
US\$ billions	10.0			2022
1.1.07 · Government consumption expenditure (%)	12.8	18.7	56	2020
Percentage of GDP				
1.1.08 · Gross fixed capital formation (\$bn)	202.2	317.6	16	2020
US\$ billions				
1.1.09 · Gross fixed capital formation (%)	18.8	22.2	50	2020
Percentage of GDP				
1.1.10 · Gross domestic savings (\$bn)	253.7	336.5	18	2020
US\$ billions				
1.1.11 · Gross domestic savings (%)	23.6	26.4	40	2020
Percentage of GDP				
1.1.12 · Economic sectors				2020
Breakdown of the economic sectors, percentage of GDP				
Economic sectors / Agriculture	4.2	3.8		2020
Economic Sectors / Agriculture	4.2	3.0		
Economic sectors / Industry	31.7	27.6		2020
				2022
Economic sectors / Services	64.1	68.2		2020
1.1.13 · Economic complexity index	1.29	0.91	21	2019
Measures knowledge intensity, by considering exports				
1.1.14 · Real GDP growth	-8.2	-5.1	54	2020
Percentage change, based on national currency in constant prices				
1.1.15 · Real GDP growth per capita	-9.14	-5.54	56	2020
Percentage change, based on national currency in constant prices	,,,,	0.0	-	
1.1.16 · Household consumption expenditure - real growth	-10.26	-5.11	57	2020
Percentage change, based on constant prices	10.20	3.11	3,	
1.1.17 · Government consumption expenditure - real growth	2.32	3.55	26	2020
Percentage change, based on constant prices	2.32	3.33	30	
	10.06	E 7E	ΕO	2020
1.1.18 · Gross fixed capital formation - real growth	-18.06	-5.75	29	2020
Percentage change, based on constant prices	1.01	F F0		2024
1.1.19 · Resilience of the economy	4.04	5.59	53	2021
Resilience of the economy to economic cycles is strong				
1.1.20 · GDP per capita	8,439	29,214	51	2020
US\$ per capita				
1.1.21 · GDP (PPP) per capita	19,171	39,600	51	2020
Estimates; US\$ per capita at purchasing power parity				
1.1.22 · Forecast: Real GDP growth	3.9	4.2	37	2021
Percentage change, based on national currency in constant prices				
1.1.23 · Forecast: Inflation	3.9	88.8	54	2021
	3.7	00.0	J .	

Percentage change				
1.1.24 · Forecast: Unemployment	4.2	8.0	10	202
Percentage of total labor force	0.0	0.0	27	202
1.1.25 · Forecast: Current account balance Percentage of GDP	0.0	0.9	3/	202
1.2 · International Trade	Value	Average R	ank '	Year
1.2.01 · Current account balance (\$bn)	26.6	9.3	16	2020
US\$ billions (minus sign = deficit)				
1.2.02 · Current account balance Percentage of GDP	2.47	1.65	27	2020
1.2.03 · Balance of trade (\$bn)	24.4	0.7	19	202
US\$ billions (minus sign = deficit)				
1.2.04 · Balance of trade (%)	2.27	0.35	29	202
Percentage of GDP				
1.2.05 · Balance of commercial services (\$bn)	-10.10	4.81	53	202
US\$ billions (minus sign = deficit)				
1.2.06 · Balance of commercial services (%)	-0.94	1.21	49	202
Percentage of GDP				200
1.2.07 · World exports contribution	1.93	1.47	15	202
Percentage share of world exports (goods and commercial services)				
1.2.08 · Exports of goods (\$bn)	417.67	257.28	11	202
US\$ billions	20.04	27.44	22	202
1.2.09 · Exports of goods (%)	38.81	37.14	22	202
Percentage of GDP	2.275	44 553	47	202
1.2.10 · Exports of goods per capita	3,2/5	11,553	4/	202
US\$ per capita	0.24	0.7/	40	202
1.2.11 · Exports of goods - growth	-9.34	-8.76	42	202
Percentage change, based on US\$ values	1/ 0/	72 44	40	202
1.2.12 · Exports of commercial services (\$bn) USS billions	16.94	73.11	40	202
	4 57	42.20	(0	202
1.2.13 · Exports of commercial services (%)	1.57	13.39	OU	202
Percentage of GDP 1.2.14 · Exports of commercial services - growth	44 27	25 42		202
Percentage change, based on US\$ values	-40.27	-25.43	22	202
1.2.15 · Exports of goods & commercial services	434.61	332.15	16	202
US\$ billions				
1.2.16 · Exports breakdown by economic sector				201
Percentage of total exports				
Exports breakdown by economic sector / Agriculture	8.1	10.3		2019
Exports breakdown by economic sector / Industry	85.5	62.7		2019
Funanta husalidasun hu acanamia acatau / Camiaca	, A	27.0		201
Exports breakdown by economic sector / Services	6.4	27.0		201
1.2.17 · Export concentration by partner	89.5	54.2	63	201
Exports to top 5 countries, percentage of total exports				
1.2.18 · Export concentration by product	59.5	55.1	42	201
Top 5 products, percentage of total exports				
1.2.19 · Imports of goods & commercial services (\$bn)	420.3	325.6	50	202
US\$ billions				
1.2.20 · Imports of goods & commercial services (%) Percentage of GDP	39.1	48.8	33	202
1.2.21 · Imports of goods & commercial services - growth	-17.11	-10.93	10	202
Percentage change, based on US\$ values				201
1.2.22 · Imports breakdown by economic sector Percentage of total imports				201
Imports breakdown by economic sector / Agriculture	6.2	8.0		2019
Imports breakdown by economic sector / Industry	86.0	67.1		2019
imports breakdomi by economic sector / industry	00.0	07.1		

Imports breakdown by economic sector / Services	7.8	25.0		2019
1.2.23 · Trade to GDP ratio	79.42	106.04	36	2019
(Exports + Imports) / GDP				
1.2.24 · Terms of trade index	85.6	97.1	60	2019
Unit value of exports over unit value of imports				
1.2.25 · Tourism receipts	1.95	3.79	40	2019
International tourism receipts as a percentage of GDP				
1.3 · International Investment	Value	Average R	ank `	Year
1.3.01 · Direct investment flows abroad (\$bn)	6.26	20.75	30	2019
US\$ billions	0.50	2.24	45	2019
1.3.02 · Direct investment flows abroad (% of GDP)	0.50	3.34	45	2013
Percentage of GDP	220.4	F3F 9		2040
1.3.03 · Direct investment stocks abroad (\$bn) USS billions	230.4	535.2	23	2019
1.3.04 · Direct investment stocks abroad (% of GDP)	18.31	81.76	39	2019
Percentage of GDP	20.20	24.42	47	2044
1.3.05 · Direct investment flows inward (\$bn) USS billions	29.38	24.48	1/	2019
1.3.06 · Direct investment flows inward (% of GDP)	2.33	5.03	31	2019
Percentage of GDP				
1.3.07 · Direct investment stocks inward (\$bn)	628.5	536.5	15	2019
US\$ billions				
1.3.08 · Direct investment stocks inward (% of GDP)	49.95	96.59	27	2019
Percentage of GDP 1.2.00 Palance of direct investment flows (Chn)	-23.11	2 72	54	2019
1.3.09 · Balance of direct investment flows (\$bn) US\$ billions (flows abroad minus flows inward)	- 23.11	-3.73	20	201
1.3.10 · Balance of direct investment flows (%)	-1.84	-1.69	40	2019
Percentage of GDP (flows abroad minus flows inward)				
1.3.11 · Net position in direct investment stocks (\$bn)	-398.1	-1.3	61	2019
US\$ billions (stocks abroad minus stocks inward)				
1.3.12 \cdot Net position in direct investment stocks (%)	-31.64	-14.83	47	2019
Percentage of GDP (stocks abroad minus stocks inward)				
1.3.13 · Relocation threats of business	4.58	5.38	56	2021
Relocation of business is not a threat to the future of your economy				
1.3.14 · Portfolio investment assets	3.52	31.19	35	2019
U\$\$ billions				
1.3.15 · Portfolio investment liabilities USS billions	9.59	29.61	25	2019
1.4 · Employment	Value	Average R	ank `	Year
1.4.01 · Employment	53.33	38.49	8	2020
Total employment in millions			-	
1.4.02 · Employment (%)	41.82	46.43	48	2020
Percentage of population				
1.4.03 · Employment - growth	-4.22	-2.20	52	2020
Estimates: percentage change				
1.4.04 · Employment - long-term growth	-1.52	-0.60	42	2020
Estimates: % of population, percentage change in 4 years				2024
1.4.05 · Employment by sector				2020
	12.6	8.2		2020
Percentage of total employment Fmployment by sector / Agriculture	12.0	0.2		
Employment by sector / Agriculture				2020
	25.2	23.4		
Employment by sector / Agriculture	25.2 62.2	68.4		2020
Employment by sector / Agriculture Employment by sector / Industry			4	2020

Percentage of total employment				
1.4.07 · Unemployment rate	4.56	8.49	17	2020
Percentage of labor force				
1.4.08 · Long-term unemployment	0.01	2.17	1	2020
Percentage of labor force				
1.4.09 · Youth unemployment	7.23	17.16	7	2019
Percentage of youth labor force (under the age of 25)				
1.4.10 · Youth exclusion	18.3	13.6	50	2019
Share of youth population (15-24) not in education, employment or training				
1.5 · Prices	Value	Average I	≀ank `	Year
1.5.01 · Consumer price inflation	3.40	38.79	56	2020
Average annual rate				
1.5.02 · Cost-of-living index	64.70	76.02	13	2019
Index of a basket of goods & services in the main city, including housing (New York City = 100)				
1.5.03 · Apartment rent	1,110	1,525	24	2018
3-room apartment monthly rent in major cities, US\$				
1.5.04 · Office rent	678	664	44	2019
Total occupation cost in the main city (US\$/Sq.M. per year)				
1.5.05 · Food costs	28.18	18.82	54	2020
Percentage of household final consumption expenditures				
1.5.06 · Gasoline prices	1.01	1.13	25	2018
Premium unleaded gasoline (95 Ron) US\$ per litre				

2 · Government Efficiency

2.1 · Public Finance	Value	Average R	Rank Y	 'ear
2.1.01 · Government budget surplus/deficit (\$bn)	-49.10	-131.03	50	2020
US\$ billions				
2.1.02 · Government budget surplus/deficit (%)	-4.56	-7.12	16	2020
Percentage of GDP				
2.1.03 · Total general government debt (\$bn)	652.04	1,251.77	50	2020
US\$ billions				
2.1.04 · Total general government debt (%)	60.59	70.60	31	2020
Percentage of GDP	4.00	47.42		2020
2.1.05 · Total general government debt-real growth Percentage change, based on national currency in constant prices	4.00	16.13	6	2020
	0.70	E 70	EΛ	2020
2.1.06 · Interest payment (%) Percentage of current revenue	9.78	5.79	50	2020
2.1.07 · Public finances	2.65	4.52	54	2021
Public finances are being efficiently managed	2.03	4.32	34	
2.1.08 · Tax evasion	3.56	4.66	47	2021
Tax evasion is not a threat to your economy	3.30	7.00	77	
2.1.09 • Pension funding	2.37	4.32	57	2021
Pension funding is adequately addressed for the future	2.37	1.32	<i>31</i>	
2.1.10 · General government expenditure	25.9	40.8	13	2020
Percentage of GDP	23.7	70.0	13	
2.2 · Tax Policy	Value	Average R	Rank Y	'ear
2.2.01 · Collected total tax revenues	14.75	27.57	9	2019
Percentage of GDP				
2.2.02 · Collected personal income tax	3.42	5.95	23	2019
On profits, income and capital gains, as a percentage of GDP				
2.2.03 · Collected corporate taxes	3.32	3.07	40	2019
On profits, income and capital gains, as a percentage of GDP				
2.2.04 · Collected indirect tax revenues	7.79	9.82	20	2019
Taxes on goods and services as a percentage of GDP				2212
2.2.05 · Collected capital and property taxes	0.33	1.34	14	2018
Percentage of GDP	2.20	7 42	17	2019
2.2.06 · Collected social security contribution	2.28	7.13	17	2017
Compulsory contribution of employees and employers as a percentage of GDP 2.2.07 · Corporate tax rate on profit	30.00	22.00	E A	2020
Maximum tax rate, calculated on profit before tax	30.00	22.80	34	2020
2.2.08 · Consumption tax rate	16.00	16.43	23	2020
Standard rate of VAT/GST	10.00	10.43	23	
2.2.09 · Employer social security tax rate	51.2	16.4	64	2020
%	31.2	10.1	0.	
2.2.10 · Employee social security tax rate	2.8	10.4	12	2020
% 2.2.44 P. J.	2.50	F 03	- 4	2024
2.2.11 · Real personal taxes	3.50	5.03	54	2021
Real personal taxes do not discourage people from working or seeking advancement				
2.3 · Institutional Framework	Value	Average R	Rank Y	'ear
2.3.01 · Real short-term interest rate	1.97	-0.04	54	2020
Real discount / bank rate				
2.3.02 · Cost of capital	3.58	5.53	55	2021
Cost of capital encourages business development				
2.3.03 · Interest rate spread	4.88	3.53	53	2020
Lending rate minus deposit rate				

2.3.04 · Country credit rating	35.3	42.8	46	2020
Index (0-60) of three country credit ratings: Fitch, Moody's and S&P	33.3	72.0	70	
2.3.05 · Central bank policy	6.80	6.31	27	2021
Central bank policy has a positive impact on the economy	0.00	0.51		
2.3.06 · Foreign currency reserves	199.06	209.20	16	2020
US\$ billions		0.054	40	2020
2.3.07 · Foreign currency reserves per capita US\$ per capita	1,561	8,256	48	2020
2.3.08 · Exchange rate stability	0.098	0.089	50	2020
Parity change from national currency to SDR, 2020 / 2018	0.070	0.007	30	
2.3.09 · Legal and regulatory framework	3.25	4.89	52	2021
The legal and regulatory framework encourages the competitiveness of enterprises	5,25			
2.3.10 · Adaptability of government policy	1.48	4.36	62	2021
Adaptability of government policy to changes in the economy is high				
2.3.11 · Transparency	1.48	4.36	61	2021
Transparency of government policy is satisfactory				
2.3.12 · Bureaucracy	1.90	3.31	48	2021
Bureaucracy does not hinder business activity				
2.3.13 · Bribery and corruption	1.65	4.43	54	2021
Bribery and corruption do not exist				
2.3.14 · Rule of law	27.40	71.01	61	2019
Rule of Law Index				
2.3.15 · Sustainable Development Goals	70.4	74.6	49	2020
Country performance on the 17 SDGs		7.00	- 4	2020
2.3.16 · Democracy Index	6.07	7.00	51	2020
EIU Overall Democracy Index, © The Economist Intelligence Unit Limited 2020				
2.4 · Business Legislation	Value	Avorago P	lank '	Voor
2, 1 Dusiness Legislation	value	Average R	alik	ıcaı
2.4.01 · Tariff barriers	1.21	2.89	8	2018
Tariffs on imports: Applied weighted mean tariff rate for all products				
2.4.02 · Protectionism	2.52	5.55	62	2021
Protectionism of your government does not impair the conduct of your business				
2.4.03 · Public sector contracts	2.92	5.79	62	2021
Public sector contracts are sufficiently open to foreign bidders	F 07	(70	Ε0	2021
2.4.04 · Foreign investors	5.07	6.70	58	2021
Foreign investors are free to acquire control in domestic companies 2.4.05 · Capital markets	4.87	6.38	56	2021
Capital markets (foreign and domestic) are easily accessible	4.07	0.30	50	
2.4.06 · Investment incentives	3.15	5.79	62	2021
Investment incentives are attractive to foreign investors	3.13	3.17	UZ	
2.4.07 · Government subsidies	2.28	1.94	42	2020
To private and public companies as a percentage of GDP	_,			
2.4.08 · Subsidies	3.46	5.22	56	2021
Subsidies do not distort fair competition and economic development				
2.4.09 · State ownership of enterprises	3.03	5.73	61	2021
State ownership of enterprises is not a threat to business activities				
2.4.10 · Competition legislation	4.10	5.57	53	2021
Competition legislation is efficient in preventing unfair competition				
2.4.11 · Parallel economy	2.00	4.67	61	2021
Parallel (black-market, unrecorded) economy does not impair economic development				
2.4.12 · New business density	1.0	6.0	52	2018
Registered new businesses per 1'000 people aged 15-64				
2.4.13 · Creation of firms	3.96	6.43	60	2021
Creation of firms is supported by legislation				00:-
2.4.14 · Start-up days	8.0	14.9	27	2019
Number of days to start a business	0.0		40	2010
2.4.15 · Start-up procedures Number of procedures to start a business	8.0	6.0	49	2019
2.4.16 · Labor regulations	3.92	5.24	5 1	2021
Labor regulations (hiring/firing practices, minimum wages, etc.) do not hinder business activities	3.92	5.24	JI	
East regulations (mining rining produces, minimum mages, etc.) at not minute business activities				

2.4.17 · Unemployment legislation	3.71	4.86	51	2021
Unemployment legislation provides an incentive to look for work				
2.4.18 · Immigration laws	5.42	5.93	45	2021
Immigration laws do not prevent your company from employing foreign labor				
2.4.19 · Redundancy costs	22.0	9.5	54	2019
Number of weeks of salary				
2.5 · Societal Framework	Value	Average F	Rank \	Year
2.5.01 · Justice	2.45	5.43	54	2021
Justice is fairly administered				
2.5.02 · Homicide	29.07	4.53	61	2018
Intentional homicide, rate per 100'000 population				
2.5.03 · Ageing of population	7.6	14.8	12	2020
Population over 65, percentage of total population				
2.5.04 · Risk of political instability	2.72	5.60	56	2021
The risk of political instability is very low				
2.5.05 · Social cohesion	2.96	5.28	57	202
Social cohesion is high				
2.5.06 · Gini coefficient	45.40	35.59	59	2018
Equal distribution of income scale: 0 (absolute equality) to 100 (absolute inequality)				
2.5.07 · Income distribution - lowest 10%	2.00	2.76		2018
Percentage of household incomes going to lowest 10% of households				
2.5.08 · Income distribution - highest 10%	36.40	27.05		2018
Percentage of household incomes going to highest 10% of households				
2.5.09 · Income distribution - lowest 40%	14.90	18.77	48	2018
Percentile going to the lowest 40% of households				
2.5.09 · Income share held by lowest 60% - growth	-	0.00		
Percentage change of household incomes going to lowest 60% of households				
2.5.10 · Income distribution - lowest 40% growth	-	0.54		
Percentile going to the lowest 40% of households - growth				
2.5.11 · Equal opportunity	3.83	5.93	59	202
Equal opportunity legislation in your economy encourages economic development				
2.5.12 · Females in parliament	48.20	28.00	2	202
Percentage of total seats in Parliament				
2.5.13 · Unemployment rate - gender ratio	0.91	1.26	12	202
Ratio of the female and male unemployement rates				
2.5.14 · Gender inequality	0.322	0.184	51	2019
Gender Inequality Index (UNDP)				
2.5.15 · Disposable Income	74.8	71.5	31	202
Female / male ratio				
2.5.16 · Freedom of the Press	45.45	28.29	57	2020
Reporters Without Borders: World Press Freedom Score				

3 · Business Efficiency

3.1 · Productivity & Efficiency	Value	Average	Rank	Year
3.1.01 · Overall productivity (PPP)	47,490	81,620	50	2019
Estimates: GDP (PPP) per person employed, US\$	·	,		
3.1.02 · Overall productivity (PPP) - real growth	-2.46	0.53	61	2019
Estimates: Percentage change of GDP (PPP) per person employed				
3.1.03 · Labor productivity (PPP)	22.22	47.29	51	2019
Estimates: GDP (PPP) per person employed per hour, US\$				
3.1.04 · Agricultural productivity (PPP)	15,138	52,322	52	2020
Estimates: Related GDP (PPP) per person employed in agriculture, US\$				
3.1.05 · Productivity in industry (PPP)	57,721	100,324	50	2020
Estimates: Related GDP (PPP) per person employed in industry, US\$				
3.1.06 · Productivity in services (PPP)	47,248	82,232	50	2020
Estimates: Related GDP (PPP) per person employed in services, US\$				
3.1.07 · Workforce productivity	6.56	6.06	22	2021
Workforce productivity is competitive by international standards				
3.1.08 · Large corporations	7.67	6.64	9	2021
Large corporations are efficient by international standards				
3.1.09 · Small and medium-size enterprises	5.24	5.99	45	2021
Small and medium-size enterprises are efficient by international standards				
$3.1.10\cdot$ Use of digital tools and technologies	5.13	5.96	50	2021
Companies are very good at using digital tools and technologies to improve performance				
3.2 · Labor Market	Value	Average	Rank	Year
3.2.01 · Compensation levels	2.69	13.69	9	2020
Total hourly compensation in manufacturing (wages + supplementary benefits), US\$				
3.2.02 · Unit labor costs for total economy	0.26	2.04	10	2019
Percentage change				
3.2.03 · Remuneration in services professions	7,429	27,862	5	2018
Gross annual income including supplements such as bonuses, US\$				
Remuneration in services professions / Call center agent	3,939	18,772		2018
Remuneration in services professions / Nurse	3,915	18,706		2018
Remuneration in services professions / Primary school	6,097	30,039		2018
Remuneration in services professions / Product Manager	13,093	47,954		2018
Remuneration in services professions / Sales Assistant	8,571	29,313		2018
Remuneration in services professions / Secretary / Personal	8,956	22,391		2018
3.2.04 · Remuneration of management	200,980	165,956	42	2019
Total base salary plus bonuses and long-term incentives, US\$				
Remuneration of management / CEO	347,888	299,663		2019
Remuneration of management / Director manufacturing	210,828	146,459		2019
Remuneration of management / Engineer	65,834	78,229		2019
Remuneration of management / Human resources director	179,370	139,473		2019
3.2.05 · Remuneration spread	38.38	17.91	57	2018
Ratio of CEO to personal assistant remuneration				

3.2.06 · Working hours	2,137	1,837	10	2019
Average number of working hours per year				
3.2.07 ⋅ Worker motivation	5.57	5.79	37	2021
Worker motivation in companies is high				
3.2.08 ⋅ Industrial disputes	0.03	13.05	13	2019
Working days lost per 1,000 inhabitants per year (average 2017-2019)				
3.2.09 · Apprenticeships	5.12	5.08	30	2021
Apprenticeships are sufficiently implemented				
3.2.10 ⋅ Employee training	5.35	5.97	47	2021
Employee training is a high priority in companies				
3.2.11 · Labor force	55.88	41.25	8	2020
Employed and registered unemployed (millions)				
3.2.12 · Labor force (%)	43.82	49.90	54	2020
Percentage of population				
3.2.13 · Labor force growth	-3.03	-0.68	57	2020
Percentage change				
3.2.14 · Labor force long-term growth	-0.46	-0.53	34	2020
Estimates: % of population, percentage change in 4 years	51.15	0.00	•	
3.2.15 · Part-time employment	17.65	13.20	17	2019
Percentage of total employment	17.03	13.20	- 17	
3.2.16 · Female labor force	38.76	43.18	55	2020
Percentage of total labor force	30.70	73.10	33	
3.2.17 · Foreign labor force - migrant stock	0.56	17.11	58	2020
Migrant stock, age 20-64, % of population	0.30	17.11	30	
	E 01	F F4	22	2021
3.2.18 · Skilled labor	5.83	5.51	32	2021
Skilled labor is readily available	(10		20	2021
3.2.19 · Finance skills	6.12	6.27	39	2021
Finance skills are readily available				2024
3.2.20 · Attracting and retaining talents	6.21	6.76	45	2021
Attracting and retaining talents is a priority in companies				
3.2.21 · Brain drain	4.10	4.78	41	2021
Brain drain (well-educated and skilled people) does not hinder competitiveness in your economy				
3.2.22 · Foreign highly-skilled personnel	4.75	5.28	40	2021
Foreign highly-skilled personnel are attracted to your country's business environment				
3.2.23 · International experience	6.06	5.52	17	2021
International experience of senior managers is generally significant				
3.2.24 · Competent senior managers	5.29	5.51	38	2021
Competent senior managers are readily available				
competent senior managers are readily available				
competent serior managers are readily available				
3.3 · Finance	Value	Average F	ank Y	⁄ear
	Value	Average F	lank Y	/ear
		Average F	Rank Y	ear 2020
3.3 · Finance				
3.3 · Finance 3.3.01 · Banking sector assets				
3.3 • Finance 3.3.01 • Banking sector assets Percentage of GDP	61.19	161.34	57	2020
3.3 · Finance 3.3.01 · Banking sector assets Percentage of GDP 3.3.02 · Financial cards in circulation Number of cards per capita	61.19 2.44	3.36	57 30	2020
3.3.01 · Banking sector assets Percentage of GDP 3.3.02 · Financial cards in circulation Number of cards per capita 3.3.03 · Financial card transactions	61.19 2.44	161.34	57	2020
3.3.01 · Banking sector assets Percentage of GDP 3.3.02 · Financial cards in circulation Number of cards per capita 3.3.03 · Financial card transactions US\$ per capita	2.44 2,769	3.36 10,208	57 30 51	2020
3.3.01 · Banking sector assets Percentage of GDP 3.3.02 · Financial cards in circulation Number of cards per capita 3.3.03 · Financial card transactions US\$ per capita 3.3.04 · Access to financial services	61.19 2.44	3.36	57 30	2020 2020 2020
3.3.01 · Banking sector assets Percentage of GDP 3.3.02 · Financial cards in circulation Number of cards per capita 3.3.03 · Financial card transactions US\$ per capita 3.3.04 · Access to financial services Proportion of adults with a bank account or mobile-money-service provider	2.44 2,769 36.93	161.34 3.36 10,208 82.18	57 30 51 61	2020 2020 2020 2017
3.3.01 · Banking sector assets Percentage of GDP 3.3.02 · Financial cards in circulation Number of cards per capita 3.3.03 · Financial card transactions US\$ per capita 3.3.04 · Access to financial services Proportion of adults with a bank account or mobile-money-service provider 3.3.05 · Access to financial services - gender ratio	2.44 2,769	3.36 10,208	57 30 51	2020 2020 2020
3.3.01 · Banking sector assets Percentage of GDP 3.3.02 · Financial cards in circulation Number of cards per capita 3.3.03 · Financial card transactions US\$ per capita 3.3.04 · Access to financial services Proportion of adults with a bank account or mobile-money-service provider 3.3.05 · Access to financial services - gender ratio Ratio of the female and male access to a bank account or mobile-money-service provider	2.44 2,769 36.93 0.81	161.34 3.36 10,208 82.18 0.96	57 30 51 61 58	2020 2020 2020 2017
3.3.01 · Banking sector assets Percentage of GDP 3.3.02 · Financial cards in circulation Number of cards per capita 3.3.03 · Financial card transactions US\$ per capita 3.3.04 · Access to financial services Proportion of adults with a bank account or mobile-money-service provider 3.3.05 · Access to financial services - gender ratio Ratio of the female and male access to a bank account or mobile-money-service provider 3.3.06 · Banking and financial services	2.44 2,769 36.93	161.34 3.36 10,208 82.18	57 30 51 61	2020 2020 2020 2017
3.3.01 · Banking sector assets Percentage of GDP 3.3.02 · Financial cards in circulation Number of cards per capita 3.3.03 · Financial card transactions US\$ per capita 3.3.04 · Access to financial services Proportion of adults with a bank account or mobile-money-service provider 3.3.05 · Access to financial services - gender ratio Ratio of the female and male access to a bank account or mobile-money-service provider 3.3.06 · Banking and financial services Banking and financial services do support business activities efficiently	2.44 2,769 36.93 0.81 5.02	161.34 3.36 10,208 82.18 0.96 6.09	57 30 51 61 58 54	2020 2020 2020 2017 2017 2021
3.3.01 · Banking sector assets Percentage of GDP 3.3.02 · Financial cards in circulation Number of cards per capita 3.3.03 · Financial card transactions US\$ per capita 3.3.04 · Access to financial services Proportion of adults with a bank account or mobile-money-service provider 3.3.05 · Access to financial services - gender ratio Ratio of the female and male access to a bank account or mobile-money-service provider 3.3.06 · Banking and financial services Banking and financial services do support business activities efficiently 3.3.07 · Regulatory compliance (banking laws)	2.44 2,769 36.93 0.81	161.34 3.36 10,208 82.18 0.96	57 30 51 61 58	2020 2020 2020 2017
3.3.01 · Banking sector assets Percentage of GDP 3.3.02 · Financial cards in circulation Number of cards per capita 3.3.03 · Financial card transactions US\$ per capita 3.3.04 · Access to financial services Proportion of adults with a bank account or mobile-money-service provider 3.3.05 · Access to financial services - gender ratio Ratio of the female and male access to a bank account or mobile-money-service provider 3.3.06 · Banking and financial services Banking and financial services do support business activities efficiently 3.3.07 · Regulatory compliance (banking laws) Regulatory compliance is sufficiently developed	2.44 2,769 36.93 0.81 5.02	161.34 3.36 10,208 82.18 0.96 6.09	57 30 51 61 58 54	2020 2020 2020 2017 2017 2021
3.3.01 · Banking sector assets Percentage of GDP 3.3.02 · Financial cards in circulation Number of cards per capita 3.3.03 · Financial card transactions USS per capita 3.3.04 · Access to financial services Proportion of adults with a bank account or mobile-money-service provider 3.3.05 · Access to financial services - gender ratio Ratio of the female and male access to a bank account or mobile-money-service provider 3.3.06 · Banking and financial services Banking and financial services do support business activities efficiently 3.3.07 · Regulatory compliance (banking laws) Regulatory compliance is sufficiently developed 3.3.08 · Stock markets	2.44 2,769 36.93 0.81 5.02	161.34 3.36 10,208 82.18 0.96 6.09	57 30 51 61 58 54	2020 2020 2020 2017 2017 2021
3.3.01 · Banking sector assets Percentage of GDP 3.3.02 · Financial cards in circulation Number of cards per capita 3.3.03 · Financial card transactions US\$ per capita 3.3.04 · Access to financial services Proportion of adults with a bank account or mobile-money-service provider 3.3.05 · Access to financial services - gender ratio Ratio of the female and male access to a bank account or mobile-money-service provider 3.3.06 · Banking and financial services Banking and financial services do support business activities efficiently 3.3.07 · Regulatory compliance (banking laws) Regulatory compliance is sufficiently developed 3.3.08 · Stock markets Stock markets provide adequate financing to companies	61.19 2.44 2,769 36.93 0.81 5.02 6.48 5.04	161.34 3.36 10,208 82.18 0.96 6.09 6.77 5.62	57 30 51 61 58 54 41	2020 2020 2020 2017 2017 2021 2021
3.3.01 · Banking sector assets Percentage of GDP 3.3.02 · Financial cards in circulation Number of cards per capita 3.3.03 · Financial card transactions USS per capita 3.3.04 · Access to financial services Proportion of adults with a bank account or mobile-money-service provider 3.3.05 · Access to financial services - gender ratio Ratio of the female and male access to a bank account or mobile-money-service provider 3.3.06 · Banking and financial services Banking and financial services do support business activities efficiently 3.3.07 · Regulatory compliance (banking laws) Regulatory compliance is sufficiently developed 3.3.08 · Stock markets Stock markets provide adequate financing to companies 3.3.09 · Stock market capitalization (\$bn)	61.19 2.44 2,769 36.93 0.81 5.02 6.48 5.04	161.34 3.36 10,208 82.18 0.96 6.09	57 30 51 61 58 54	2020 2020 2020 2017 2017 2021
3.3.01 · Banking sector assets Percentage of GDP 3.3.02 · Financial cards in circulation Number of cards per capita 3.3.03 · Financial card transactions USS per capita 3.3.04 · Access to financial services Proportion of adults with a bank account or mobile-money-service provider 3.3.05 · Access to financial services - gender ratio Ratio of the female and male access to a bank account or mobile-money-service provider 3.3.06 · Banking and financial services Banking and financial services do support business activities efficiently 3.3.07 · Regulatory compliance (banking laws) Regulatory compliance is sufficiently developed 3.3.08 · Stock markets Stock markets provide adequate financing to companies 3.3.09 · Stock market capitalization (\$bn) USS billions	61.19 2.44 2,769 36.93 0.81 5.02 6.48 5.04 369.7	161.34 3.36 10,208 82.18 0.96 6.09 6.77 5.62 1,276.4	57 30 51 61 58 54 41 41 27	2020 2020 2017 2017 2021 2021
3.3.01 · Banking sector assets Percentage of GDP 3.3.02 · Financial cards in circulation Number of cards per capita 3.3.03 · Financial card transactions USS per capita 3.3.04 · Access to financial services Proportion of adults with a bank account or mobile-money-service provider 3.3.05 · Access to financial services - gender ratio Ratio of the female and male access to a bank account or mobile-money-service provider 3.3.06 · Banking and financial services Banking and financial services do support business activities efficiently 3.3.07 · Regulatory compliance (banking laws) Regulatory compliance is sufficiently developed 3.3.08 · Stock markets Stock markets provide adequate financing to companies 3.3.09 · Stock market capitalization (\$bn)	61.19 2.44 2,769 36.93 0.81 5.02 6.48 5.04 369.7	161.34 3.36 10,208 82.18 0.96 6.09 6.77 5.62	57 30 51 61 58 54 41	2020 2020 2020 2017 2017 2021 2021

3.3.11 · Value traded on stock markets	670	15,149 41 ²⁰¹⁹
US\$ per capita	0,0	13,117 11
3.3.12 · Listed domestic companies	139	713 37 2019
Number of listed domestic companies		
3.3.13 · Stock market index	-9.00	-3.62 43 ²⁰²⁰
Percentage change on index in national currency		
3.3.14 · Shareholders' rights	6.33	6.70 43 2021
Shareholders' rights are sufficiently implemented		
3.3.15 · Initial Public Offerings	1,641.9	3,591.6 16 ²⁰²⁰
By acquiror nation (average 2018-2020) US\$ millions		
3.3.16 · Credit	4.73	5.95 51 ²⁰²¹
Credit is easily available for business		
3.3.17 · Venture capital	4.02	5.13 50 ²⁰²¹
Venture capital is easily available for business		
3.3.18 · M&A Activity	0.765	1.329 29 2019
Deals per listed company (average 2017-2019)		
3.3.19 · Corporate debt	5.35	5.83 40 ²⁰²¹
Corporate debt does not restrain the ability of enterprises to compete		
3.4 · Management Practices	Value	Average Rank Year
3.4.01 · Agility of companies	5.90	5.99 34 ²⁰²¹
Companies are agile		
3.4.02 · Changing market conditions	6.27	6.68 46 ²⁰²¹
Companies are generally extremely aware of changing market conditions		
3.4.03 · Opportunities and threats	5.98	6.23 43 ²⁰²¹
Companies are very good at responding quickly to opportunities and threats		
3.4.04 · Credibility of managers	6.39	5.96 28 ²⁰²¹
Credibility of managers in society is strong		
3.4.05 · Corporate boards	6.38	6.03 28 2021
Corporate boards do supervise the management of companies effectively		
3.4.06 · Auditing and accounting practices	6.85	7.15 41 ²⁰²¹
Auditing and accounting practices are adequately implemented in business		
3.4.07 · Use of big data and analytics	4.47	5.10 49 2021
Companies are very good at using big data and analytics to support decision-making		
3.4.08 · Customer satisfaction	6.67	6.91 43 2021
Customer satisfaction is emphasized in companies		
3.4.09 · Entrepreneurship	5.56	5.95 45 ²⁰²¹
Entrepreneurship of managers is widespread in business		
3.4.10 · Social responsibility	5.63	5.84 41 ²⁰²¹
Social responsibility of business leaders is high		
3.4.11 · Women in management	35.52	31.42 20 2019
Female share of senior and middle management (% of management)		
3.4.12 · Women on boards	9.00	21.73 50 ²⁰²⁰
Boardmembers of all companies analyzed by MSCI		
3.4.13 · Entrepreneurial fear of failure	47.74	40.12 45 2019
% indicating that fear of failure would prevent them from setting up a business	40.00	10 10 01 2010
3.4.14 · Total early-stage Entrepreneurial Activity	12.98	12.48 21 ²⁰¹⁹
% who are either a nascent entrepreneur or owner-manager of a new business		
3.5 · Attitudes and Values	Value	Average Rank Year
3.5.01 · Attitudes toward globalization	6.65	6.32 25 2021
Attitudes toward globalization are generally positive in your society	0.03	J.J2 23
3.5.02 ⋅ Image abroad or branding	3.94	6.18 57 2021
The image abroad of your country encourages business development		+ -,
3.5.03 · National culture	6.13	6.69 52 ²⁰²¹
The national culture is open to foreign ideas	05	
3.5.04 · Flexibility and adaptability	6.50	6.61 41 2021
Flexibility and adaptability of people are high when faced with new challenges	3.33	
3.5.05 · Need for economic and social reforms	3.94	5.77 60 ²⁰²¹
The need for economic and social reforms is generally well understood		

3.5.06 · Digital transformation in companies	5.04	5.75	47	2021
Digital transformation in companies is generally well implemented				
3.5.07 · Value system	4.93	6.11	53	2021

The value system in your society supports competitiveness

4 · Infrastructure

4.1 · Basic Infrastructure	Value	Average	Rank	Year
4.1.01 · Land area	1,964	1,462	11	2020
Square kilometers ('000)				
4.1.02 · Arable area	2,126	2,951	31	2018
Square meters per capita				
4.1.03 · Water resources	3,167	18,657	34	2017
Total internal renewable per capita in cubic meters	•			
4.1.04 · Access to water	5.81	7.94	58	2021
Access to water is adequately ensured and managed				
4.1.05 · Management of cities	5.40	6.52	53	2021
Management of cities supports business development				
4.1.06 · Population - market size	127.52	82.75	7	2020
Estimates in millions	121,792		-	
4.1.07 · Population - growth	0.91	0.55	20	2020
Percentage change		0.00		
4.1.08 · Dependent Population	33.8	33.5		2020
Percentage of total population	33.0	33.3		
Population over 65 years	7.6	14.8		2020
Fopulation over 65 years	7.0	14.0		
Danislation under 4E verse	27.2	10.0		2020
Population under 15 years	26.2	18.8		2020
4.1.09 · Dependency ratio	51.1	51.1	26	2020
Population under 15 and over 64 years old, divided by active population (15 to 64 years)	31.1	31.1	20	
4.1.10 · Roads	0.20	1.26	44	2015
Density of the network, km roads/square km land area	0.20	1.20	44	2010
	0.014	0.054	44	2019
4.1.11 · Railroads	0.014	0.051	41	2015
Density of the network, km per square km	(0.020	(7.074	20	2010
4.1.12 · Air transportation	69,938	67,271	20	2019
Number of passengers carried by main companies, thousands				
4.1.13 · Quality of air transportation	5.77	7.10	53	2021
Quality of air transportation encourages business development				
4.1.14 · Distribution infrastructure	5.88	7.21	54	2021
The distribution infrastructure of goods and services is generally efficient				
4.1.15 · Energy infrastructure	3.92	7.11	60	2021
Energy infrastructure is adequate and efficient				
4.1.16 · Total indigenous energy production	158.20	185.53	14	2018
Millions MTOE				
4.1.17 · Total indigenous energy production (%)	87.6	105.8	21	2018
Percentage of total requirements in tons of oil equivalent				
4.1.18 · Total final energy consumption	122.34	125.76	51	2017
Millions MTOE	1220		•	
4.1.19 · Total final energy consumption per capita	0.99	2.44	9	2017
MTOE per capita	0.77	2. 11		
4.1.20 · Electricity costs for industrial clients	0.090	0.103	10	2018
US\$ per kwh	0.070	0.103	17	
4.2 · Technological Infrastructure	Value	Average	Rank	Year
4.2.01 · Investment in Telecommunications	0.26	0.45	51	2020
0.000				
Percentage of GDP		63.4	49	2019
Percentage of GDP 4.2.02 · Mobile Broadband subscribers	45.9	05.7		
•	45.9	03.4	.,	
4.2.02 · Mobile Broadband subscribers	45.9	15.3		2019

				2004
4.2.04 · Communications technology Communications technology (voice and data) meets business requirements	6.14	7.65	56	2021
4.2.05 · Computers in use	1.97	1.36	11	2018
Worldwide share/ Source: Computer Industry Almanac	1.77	1.30	11	
4.2.06 · Computers per capita	406	719	48	201
Number of computers per 1000 people/ Source: Computer Industry Almanac	700	717	70	
4.2.07 · Internet users	613	793	56	2020
Number of internet users per 1000 people	•	.,,	-	
4.2.08 · Broadband subscribers	190	374	50	201
Number of subscriptions per 1000 inhabitants				
4.2.09 · Internet bandwidth speed	25.2	56.5	51	202
Average speed				
4.2.10 · Digital/Technological skills	6.00	6.88	51	202
Digital/Technological skills are readily available				
4.2.11 · Qualified engineers	6.98	6.55	28	202
Qualified engineers are available in your labor market				
4.2.12 · Public-private partnerships	5.38	5.95	45	202
Public and private sector ventures are supporting technological development				
4.2.13 · Development & application of tech.	4.76	6.35	57	202
Development and application of technology are supported by the legal environment				
4.2.14 · Funding for technological development	3.22	5.84	61	202
Funding for technological development is readily available				
4.2.15 · High-tech exports (\$)	75,234	46,556	13	201
US\$ millions		,		
4.2.16 · High-tech exports (%)	20.42	17.16	19	201
Percentage of manufactured exports				
4.2.17 · ICT service exports	0.3	9.3	63	201
Percentage of service exports		,,,		
4.2.18 · Cyber security	4.10	5.77	61	202
Cyber security is being adequately addressed by corporations 4.3 • Scientific Infrastructure			Rank	
4.3 · Scientific Infrastructure	Value	Average F		Year
4.3 · Scientific Infrastructure 4.3.01 · Total expenditure on R&D (\$)	Value			Year
4.3 • Scientific Infrastructure 4.3.01 • Total expenditure on R&D (\$) US\$ millions	Value 3,603	Average F	33	Year 201'
4.3 • Scientific Infrastructure 4.3.01 • Total expenditure on R&D (\$) US\$ millions 4.3.02 • Total expenditure on R&D (%)	Value	Average F	33	Year 201'
4.3 · Scientific Infrastructure 4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP	Value 3,603 0.29	Average F 29,862 1.53	33 55	Year 2019 2019
4.3 · Scientific Infrastructure 4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP 4.3.03 · Total expenditure on R&D per capita (\$)	Value 3,603	Average F	33 55	Year 201' 201'
4.3 · Scientific Infrastructure 4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP 4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita	Value 3,603 0.29 28.5	Average F 29,862 1.53 619.4	335553	Year 201' 201'
4.3 · Scientific Infrastructure 4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP 4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 · Business expenditure on R&D (\$)	Value 3,603 0.29 28.5	Average F 29,862 1.53	335553	Year 201 201 201
4.3 · Scientific Infrastructure 4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP 4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 · Business expenditure on R&D (\$) US\$ millions	Value 3,603 0.29 28.5 786	Average F 29,862 1.53 619.4 22,065	33555341	2011 2011 2011 2011
4.3 · Scientific Infrastructure 4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP 4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 · Business expenditure on R&D (\$) US\$ millions 4.3.05 · Business expenditure on R&D (%)	Value 3,603 0.29 28.5	Average F 29,862 1.53 619.4	33555341	201 201 201 201
4.3 · Scientific Infrastructure 4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP 4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 · Business expenditure on R&D (\$) US\$ millions 4.3.05 · Business expenditure on R&D (%) Percentage of GDP	Value 3,603 0.29 28.5 786 0.06	Average F 29,862 1.53 619.4 22,065 1.02	3355534156	2011 2011 2011 2011
4.3 · Scientific Infrastructure 4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP 4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 · Business expenditure on R&D (\$) US\$ millions 4.3.05 · Business expenditure on R&D (%) Percentage of GDP 4.3.06 · Total R&D personnel	Value 3,603 0.29 28.5 786	Average F 29,862 1.53 619.4 22,065	3355534156	201 201 201 201 201
4.3 · Scientific Infrastructure 4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP 4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 · Business expenditure on R&D (\$) US\$ millions 4.3.05 · Business expenditure on R&D (%) Percentage of GDP 4.3.06 · Total R&D personnel Full-time work equivalent (FTE thousands)	Value 3,603 0.29 28.5 786 0.06 67.0	Average F 29,862 1.53 619.4 22,065 1.02 221.6	335553415625	201 201 201 201 201 201
4.3 · Scientific Infrastructure 4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP 4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 · Business expenditure on R&D (\$) US\$ millions 4.3.05 · Business expenditure on R&D (%) Percentage of GDP 4.3.06 · Total R&D personnel Full-time work equivalent (FTE thousands) 4.3.07 · Total R&D personnel per capita	Value 3,603 0.29 28.5 786 0.06	Average F 29,862 1.53 619.4 22,065 1.02	3355534156	201 201 201 201 201 201
4.3 · Scientific Infrastructure 4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP 4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 · Business expenditure on R&D (\$) US\$ millions 4.3.05 · Business expenditure on R&D (%) Percentage of GDP 4.3.06 · Total R&D personnel Full-time work equivalent (FTE thousands) 4.3.07 · Total R&D personnel per capita Full-time work equivalent (FTE) per 1000 people	Value 3,603 0.29 28.5 786 0.06 67.0 0.53	Average F 29,862 1.53 619.4 22,065 1.02 221.6 5.01	33555341562552	2011 2011 2011 2011 2011 2011 2011
4.3 · Scientific Infrastructure 4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP 4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 · Business expenditure on R&D (\$) US\$ millions 4.3.05 · Business expenditure on R&D (%) Percentage of GDP 4.3.06 · Total R&D personnel Full-time work equivalent (FTE thousands) 4.3.07 · Total R&D personnel per capita Full-time work equivalent (FTE) per 1000 people 4.3.08 · Total R&D personnel in business enterprise	Value 3,603 0.29 28.5 786 0.06 67.0	Average F 29,862 1.53 619.4 22,065 1.02 221.6	33555341562552	2011 2011 2011 2011 2011 2011 2011
4.3 · Scientific Infrastructure 4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP 4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 · Business expenditure on R&D (\$) US\$ millions 4.3.05 · Business expenditure on R&D (%) Percentage of GDP 4.3.06 · Total R&D personnel Full-time work equivalent (FTE thousands) 4.3.07 · Total R&D personnel per capita Full-time work equivalent (FTE) per 1000 people 4.3.08 · Total R&D personnel in business enterprise Full-time work equivalent (FTE thousands)	Value 3,603 0.29 28.5 786 0.06 67.0 0.53 28.5	Average F 29,862 1.53 619.4 22,065 1.02 221.6 5.01 174.4	33 55 53 41 56 25 52 30	2011 2011 2011 2011 2011 2011 2011
4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP 4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 · Business expenditure on R&D (\$) US\$ millions 4.3.05 · Business expenditure on R&D (%) Percentage of GDP 4.3.06 · Total R&D personnel Full-time work equivalent (FTE thousands) 4.3.07 · Total R&D personnel per capita Full-time work equivalent (FTE) per 1000 people 4.3.08 · Total R&D personnel in business enterprise Full-time work equivalent (FTE thousands) 4.3.09 · Total R&D personnel in business per capita	Value 3,603 0.29 28.5 786 0.06 67.0 0.53	Average F 29,862 1.53 619.4 22,065 1.02 221.6 5.01	33 55 53 41 56 25 52 30	2011 2011 2011 2011 2011 2011 2011
4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP 4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 · Business expenditure on R&D (\$) US\$ millions 4.3.05 · Business expenditure on R&D (%) Percentage of GDP 4.3.06 · Total R&D personnel Full-time work equivalent (FTE thousands) 4.3.07 · Total R&D personnel per capita Full-time work equivalent (FTE thousands) 4.3.08 · Total R&D personnel in business enterprise Full-time work equivalent (FTE thousands) 4.3.09 · Total R&D personnel in business per capita Full-time work equivalent (FTE) per 1000 people	Value 3,603 0.29 28.5 786 0.06 67.0 0.53 28.5	Average F 29,862 1.53 619.4 22,065 1.02 221.6 5.01 174.4 3.14	33 55 53 41 56 25 52 30	2011 2011 2011 2011 2011 2011 2011 2011
4.3 • Scientific Infrastructure 4.3.01 • Total expenditure on R&D (\$) US\$ millions 4.3.02 • Total expenditure on R&D (%) Percentage of GDP 4.3.03 • Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 • Business expenditure on R&D (\$) US\$ millions 4.3.05 • Business expenditure on R&D (%) Percentage of GDP 4.3.06 • Total R&D personnel Full-time work equivalent (FTE thousands) 4.3.07 • Total R&D personnel per capita Full-time work equivalent (FTE) per 1000 people 4.3.08 • Total R&D personnel in business enterprise Full-time work equivalent (FTE thousands) 4.3.09 • Total R&D personnel in business per capita Full-time work equivalent (FTE) per 1000 people 4.3.10 • Researchers in R&D per capita	Value 3,603 0.29 28.5 786 0.06 67.0 0.53 28.5	Average F 29,862 1.53 619.4 22,065 1.02 221.6 5.01 174.4	33 55 53 41 56 25 52 30	201 201 201 201 201 201 201 201 201 201
4.3 • Scientific Infrastructure 4.3.01 • Total expenditure on R&D (\$) US\$ millions 4.3.02 • Total expenditure on R&D (%) Percentage of GDP 4.3.03 • Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 • Business expenditure on R&D (\$) US\$ millions 4.3.05 • Business expenditure on R&D (%) Percentage of GDP 4.3.06 • Total R&D personnel Full-time work equivalent (FTE thousands) 4.3.07 • Total R&D personnel per capita Full-time work equivalent (FTE) per 1000 people 4.3.08 • Total R&D personnel in business enterprise Full-time work equivalent (FTE thousands) 4.3.09 • Total R&D personnel in business per capita Full-time work equivalent (FTE) per 1000 people 4.3.10 • Researchers in R&D per capita Full-time work equivalent (FTE) per 1000 people	Value 3,603 0.29 28.5 786 0.06 67.0 0.53 28.5 0.23	Average F 29,862 1.53 619.4 22,065 1.02 221.6 5.01 174.4 3.14 3.3	33 55 53 41 56 25 52 30 51	Year 201 201 201 201 201 201 201 201 201 201
4.3 · Scientific Infrastructure 4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP 4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 · Business expenditure on R&D (\$) US\$ millions 4.3.05 · Business expenditure on R&D (%) Percentage of GDP 4.3.06 · Total R&D personnel Full-time work equivalent (FTE thousands) 4.3.07 · Total R&D personnel per capita Full-time work equivalent (FTE) per 1000 people 4.3.08 · Total R&D personnel in business enterprise Full-time work equivalent (FTE thousands) 4.3.09 · Total R&D personnel in business per capita Full-time work equivalent (FTE) per 1000 people 4.3.10 · Researchers in R&D per capita Full-time work equivalent (FTE) per 1000 people 4.3.11 · Graduates in Sciences	Value 3,603 0.29 28.5 786 0.06 67.0 0.53 28.5	Average F 29,862 1.53 619.4 22,065 1.02 221.6 5.01 174.4 3.14	33 55 53 41 56 25 52 30 51	2011 2011 2011 2011 2011 2011 2011 2011
4.3 · Scientific Infrastructure 4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP 4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 · Business expenditure on R&D (\$) US\$ millions 4.3.05 · Business expenditure on R&D (%) Percentage of GDP 4.3.06 · Total R&D personnel Full-time work equivalent (FTE thousands) 4.3.07 · Total R&D personnel per capita Full-time work equivalent (FTE) per 1000 people 4.3.08 · Total R&D personnel in business enterprise Full-time work equivalent (FTE thousands) 4.3.09 · Total R&D personnel in business per capita Full-time work equivalent (FTE) per 1000 people 4.3.10 · Researchers in R&D per capita Full-time work equivalent (FTE) per 1000 people 4.3.11 · Graduates in Sciences % of graduates in ICT, Engineering, Math & Natural Sciences	Value 3,603 0.29 28.5 786 0.06 67.0 0.53 28.5 0.23 0.3	Average F 29,862 1.53 619.4 22,065 1.02 221.6 5.01 174.4 3.14 3.3 24.82	33 55 53 41 56 25 52 30 51	2011 2011 2011 2011 2011 2011 2011 2011
4.3 • Scientific Infrastructure 4.3.01 • Total expenditure on R&D (\$) US\$ millions 4.3.02 • Total expenditure on R&D (%) Percentage of GDP 4.3.03 • Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 • Business expenditure on R&D (\$) US\$ millions 4.3.05 • Business expenditure on R&D (%) Percentage of GDP 4.3.06 • Total R&D personnel Full-time work equivalent (FTE thousands) 4.3.07 • Total R&D personnel per capita Full-time work equivalent (FTE) per 1000 people 4.3.08 • Total R&D personnel in business enterprise Full-time work equivalent (FTE thousands) 4.3.09 • Total R&D personnel in business per capita Full-time work equivalent (FTE) per 1000 people 4.3.10 • Researchers in R&D per capita Full-time work equivalent (FTE) per 1000 people 4.3.11 • Graduates in Sciences % of graduates in ICT, Engineering, Math & Natural Sciences 4.3.11 • Science degrees	Value 3,603 0.29 28.5 786 0.06 67.0 0.53 28.5 0.23	Average F 29,862 1.53 619.4 22,065 1.02 221.6 5.01 174.4 3.14 3.3	33 55 53 41 56 25 52 30 51	2019 2019 2019 2019 2019 2019 2019 2019
4.3 · Scientific Infrastructure 4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP 4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 · Business expenditure on R&D (\$) US\$ millions 4.3.05 · Business expenditure on R&D (%) Percentage of GDP 4.3.06 · Total R&D personnel Full-time work equivalent (FTE thousands) 4.3.07 · Total R&D personnel per capita Full-time work equivalent (FTE) per 1000 people 4.3.08 · Total R&D personnel in business enterprise Full-time work equivalent (FTE thousands) 4.3.09 · Total R&D personnel in business per capita Full-time work equivalent (FTE) per 1000 people 4.3.10 · Researchers in R&D per capita Full-time work equivalent (FTE) per 1000 people 4.3.11 · Graduates in Sciences % of graduates in ICT, Engineering, Math & Natural Sciences Percentage of total first university degrees in science and engineering	Value 3,603 0.29 28.5 786 0.06 67.0 0.53 28.5 0.23 0.3 25.97	Average F 29,862 1.53 619.4 22,065 1.02 221.6 5.01 174.4 3.14 3.3 24.82 0.00	33 55 53 41 56 25 52 30 51 52 26	2011 2011 2011 2011 2011 2011 2011 2011
4.3. • Scientific Infrastructure 4.3.01 • Total expenditure on R&D (\$) US\$ millions 4.3.02 • Total expenditure on R&D (%) Percentage of GDP 4.3.03 • Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 • Business expenditure on R&D (\$) US\$ millions 4.3.05 • Business expenditure on R&D (%) Percentage of GDP 4.3.06 • Total R&D personnel Full-time work equivalent (FTE thousands) 4.3.07 • Total R&D personnel per capita Full-time work equivalent (FTE) per 1000 people 4.3.08 • Total R&D personnel in business enterprise Full-time work equivalent (FTE thousands) 4.3.09 • Total R&D personnel in business per capita Full-time work equivalent (FTE) per 1000 people 4.3.10 • Researchers in R&D per capita Full-time work equivalent (FTE) per 1000 people 4.3.11 • Graduates in Sciences % of graduates in ICT, Engineering, Math & Natural Sciences 4.3.11 • Science degrees Percentage of total first university degrees in science and engineering 4.3.12 • Scientific articles	Value 3,603 0.29 28.5 786 0.06 67.0 0.53 28.5 0.23 0.3 25.97	Average F 29,862 1.53 619.4 22,065 1.02 221.6 5.01 174.4 3.14 3.3 24.82	33 55 53 41 56 25 52 30 51 52 26	
4.3 · Scientific Infrastructure 4.3.01 · Total expenditure on R&D (\$) US\$ millions 4.3.02 · Total expenditure on R&D (%) Percentage of GDP 4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita 4.3.04 · Business expenditure on R&D (\$) US\$ millions 4.3.05 · Business expenditure on R&D (%) Percentage of GDP 4.3.06 · Total R&D personnel Full-time work equivalent (FTE thousands) 4.3.07 · Total R&D personnel per capita Full-time work equivalent (FTE) per 1000 people 4.3.08 · Total R&D personnel in business enterprise Full-time work equivalent (FTE thousands) 4.3.09 · Total R&D personnel in business per capita Full-time work equivalent (FTE) per 1000 people 4.3.10 · Researchers in R&D per capita Full-time work equivalent (FTE) per 1000 people 4.3.11 · Graduates in Sciences % of graduates in ICT, Engineering, Math & Natural Sciences Percentage of total first university degrees in science and engineering	Value 3,603 0.29 28.5 786 0.06 67.0 0.53 28.5 0.23 0.3 25.97	Average F 29,862 1.53 619.4 22,065 1.02 221.6 5.01 174.4 3.14 3.3 24.82 0.00	33 55 53 41 56 25 52 30 51 52 26	2019 2019 2019 2019 2019 2019 2019 2019

Awarded in physics, chemistry, physiology or medicine and economics since 1950 $\,$

42.44 N.L.L. 's	0.00	0.40	20	2020
4.3.14 · Nobel prizes per capita Awarded in physics, chemistry, physiology or medicine and economics since 1950 per million people	0.00	0.19	29	2020
4.3.15 • Patent applications	2 534	51,785	32	2019
Number of applications filed by applicant's origin	2,331	31,703	32	
4.3.16 · Patent applications per capita Number of applications filed by applicant's origin, per 100,000 inhabitants	2.01	79.88	56	2019
4.3.17 • Patent grants	1 137	23,979	36	2019
Number of patents granted by applicant's origin (average 2017-2019)	1,137	23,777		
4.3.18 · Number of patents in force	8.4	459.6	52	2019
by applicant's origin, per 100,000 inhabitants				
4.3.19 · Medium- and high-tech value added	42.56	37.97	25	2018
Proportion of total manufacturing value added, expressed as a percentage				
4.3.20 · Scientific research legislation	2.89	5.84	63	2021
Laws relating to scientific research do encourage innovation				
4.3.21 · Intellectual property rights	5.20	6.45	52	2021
Intellectual property rights are adequately enforced				
4.3.22 · Knowledge transfer	4.58	5.36	43	2021
Knowledge transfer is highly developed between companies and universities				
4.4 · Health and Environment	Value	Average F	Rank '	Year
4.4.01 · Total health expenditure	5.4	7.4	48	2018
Percentage of GDP				
4.4.02 · Total health expenditure per capita	525	2,591	51	2018
US\$ per capita				
4.4.03 · Public expenditure on health (%)	50.07	64.56	55	2018
Percentage of total health expenditure				
4.4.04 · Health infrastructure	2.78	5.98	56	2021
Health infrastructure meets the needs of society				
4.4.05 · Universal health care coverage index	76	77	32	2017
Index (0-100) measuring coverage of essential health services				
4.4.06 · Life expectancy at birth	75.0	78.5	52	2019
Average estimate	// /	(0.4	F2	2020
4.4.07 · Healthy life expectancy	66.4	69.6	52	2020
Average estimate	14.2	8.1	56	2019
4.4.08 · Infant mortality Under five mortality rate per 1000 live births	14.2	0.1	36	2017
4.4.09 · Medical assistance			52	2020
Number of inhabitants per physician and per nurse			32	
Medical assistance / Per nurse	343.82	301.56		2020
medical assistance / Fer Harse	3 13.02	301.30		
Medical assistance / Per physician	415.81	568.09		2020
medical assistance / Let physician	113.01	300.07		
4.4.10 · Urban population	81	77		2020
Percentage of total population	<u> </u>			
4.4.11 · Human development index	0.779	0.861	50	2019
Combines economic - social - educational indicators/ Source: Human Development Report				
4.4.12 · Energy intensity	106	119	32	2017
Total energy consumed for each 1000 US\$ of GDP in MTOE				
4.4.13 · Safely treated waste water	51.1	71.7	44	2018
Percentage of waste water				
4.4.14 · Water use efficiency	13.00	86.77	52	2018
US\$ per cubic meter		.== .	_	22.5
4.4.15 · CO2 emissions	448.5	455.9	54	2018
Metric tons of carbon dioxide from fuel combustion	344	272 (4.4	2019
4.4.16 · CO2 emissions intensity	366.6	372.1	41	2018
CO2 emissions from fuel combustion in metric tons per one million US\$ of GDP	20.44	40.73	47	2019
4.4.17 • Exposure to particle pollution Mean population exposure to PM2.5, Micrograms per cubic metre	20.11	19.63	46	2017
	8.9	16.0	40	2017
4.4.18 · Renewable energies (%) Share of renewables in total energy requirements, %	6.9	10.0	40	
s.a. o o one mater an event energy requirements, m				

4.4.19 · Forest area growth	-0.9	0.4	52 2018	
Five year percentage change of hectares				
4.4.20 · Total biocapacity	1.14	3.44	43 2017	
Global hectares per capita of biologically productive space	-			
4.4.21 · Ecological footprint	2.6	4.9	9 2017	
Global hectares per person				
4.4.22 · Ecological balance (reserve/deficit)	-1.49	-1.45	28 2017	
Total biocapacity minus total footprint in global hectares per capita				
4.4.23 · Environment-related technologies	0.12	1.56	30 ²⁰¹⁸	
Development of environment-related technologies, % inventions worldwide				
4.4.24 · Environmental agreements	85.54	82.69	35 ²⁰¹⁵	
Multilateral agreements on hazardous waste, proportion fulfilled				
4.4.25 · Sustainable development	5.25	6.10	49 2021	
Sustainable development is a priority in companies				
4.4.26 · Pollution problems	3.79	5.71	59 2021	
Pollution problems do not seriously affect your economy				
4.4.27 · Environmental laws	4.95	6.21	60 2021	
Environmental laws and compliance do not hinder the competitiveness of businesses				
4.4.28 · Quality of life	5.18	6.67	46 2021	
Quality of life is high				
4.5 · Education	Value	Average F	Rank Year	
		•		
4.5.01 · Total public expenditure on education	3.1	4.7	58 ²⁰¹⁹	
Percentage of GDP				
4.5.02 · Total public expenditure on education per capita	304	1,502	53 2019	
US\$ per capita				
4.5.03 · Total public exp. on education per student	983	6,873	57 2018	
Spending per enrolled pupil/student, all levels				l
4.5.04 · Pupil-teacher ratio (primary education)	26.41	16.30	59 2018	
Ratio of students to teaching staff				l
4.5.05 · Pupil-teacher ratio (secondary education)	27.84	13.64	62 2018	
Ratio of students to teaching staff				ı
4.5.06 · Secondary school enrollment	83.0	92.5	54 2018	
Percentage of relevant age group receiving full-time education				1
4.5.07 · Higher education achievement	23.6	43.5	55 2019	ĺ
Percentage of population that has attained at least tertiary education for persons 25-34				1
4.5.08 · Women with degrees	17.7	40.1	52 2019	ĺ
Share of women who have a degree in the population 25-65				1
4.5.09 · Student mobility inbound	0.06	3.68	60 2018	,
Foreign tertiary-level students per 1000 inhabitants				1
4.5.10 · Student mobility outbound	0.27	2.55	58 ²⁰¹⁸	
National tertiary-level students studying abroad per 1000 inhabitants				
4.5.11 · Educational assessment - PISA	416	471	47 2018	
PISA survey of 15-year olds				
Educational assessment - PISA / Mathematics	409	472	2018	
Educational assessment - PISA / Reading	420	468	2018	
Educational assessment 113/17 Neading	.20	100		
Educational assessment - PISA / Sciences	419	472	2018	
Educational assessment Tish 7 selences	717	7/2		
4.5.12 · Students who are not low achievers - PISA	35.7	58.6	47 2018	
% of students who are not low achievers in maths, sciences and reading	33.7	50.0	77	
4.5.13 · English proficiency - TOEFL	87	89	43 2019	
TOEFL scores	07	0,	73	l,
4.5.14 · Primary and secondary education	4.10	6.01	53 2021	
Primary and secondary education Primary and secondary education meets the needs of a competitive economy	7.10	3.01	33	L
4.5.15 · University education	5.51	6.30	42 2021	
University education University education meets the needs of a competitive economy	3.31	0.30	74	L
4.5.16 · Management education	5.81	6.32	45 ²⁰²¹	
יוס ווס וומומצים ווכווג בטעכמנוטוו	J.01	0.32	40 2021	l.

Management education meets the needs of the business community

4.5.17 · University education index	1.87	15.03	51	2020
Country score calculated from Times Higher Education university ranking				
4.5.18 · Illiteracy	4.6	2.6	52	2018
Adult (over 15 years) illiteracy rate as a percentage of population				
4.5.19 · Language skills	5.04	6.28	45	2021

Language skills are meeting the needs of enterprises

About the Institute for Management Development (IMD)

The Institute for Management Development (IMD) is an independent academic institution with Swiss roots and global reach, founded 75 years ago by business leaders for business leaders. Since its creation, IMD has been a pioneering force in developing leaders who transform organizations and contribute to society.

Based in Lausanne (Switzerland) and Singapore, IMD has been ranked in the Top 3 of the annual FT's Executive Education Global Ranking for the last nine consecutive years and in the top five for 17 consecutive years. Our MBA and EMBA programs have repeatedly been singled out among the best in Europe and the world.

We believe that this consistency at the forefront of our industry is grounded in IMD's unique approach to creating "Real Learning. Real Impact". Led by an expert and diverse faculty, we strive to be the trusted learning partner of choice for ambitious individuals and organizations worldwide. Challenging what is and inspiring what could be.

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