

IMD World Competitiveness Yearbook 2022

COUNTRY PROFILE

AUSTRALIA



Competitiveness Trends – Overall

OVERALL PERFORMANCE (63 countries)



CHALLENGES IN 2022

- Sustaining strong growth without overheating the economy.
- Turning around lacklustre productivity growth.
- Addressing skills shortages, particularly in high valueadded technology-driven sectors.
- Speeding up progress in transition to net zero economy.
- Realising faster adoption of cutting-edge technologies by business.

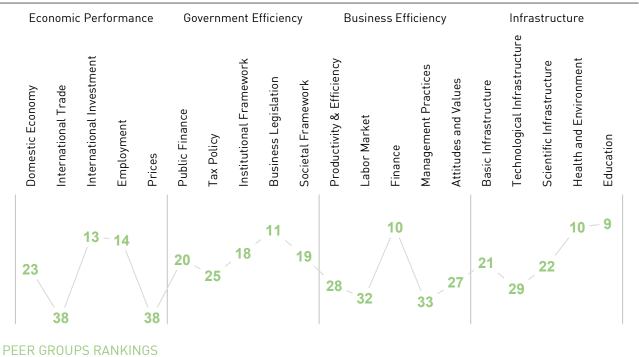
BASIC FACTS

Rank

| Capital | Canberra | |
|--|-------------------------|----|
| Land area (square km '000) | 7,741 ²⁰²¹ | |
| Exchange Rate (per \$) | 1.331 ²⁰²¹ | |
| Population - market size (millions) | 25.74 ²⁰²¹ | 26 |
| Gross Domestic Product (GDP) (US\$ billions) | 1,632.0 ²⁰²¹ | 11 |
| GDP (PPP) per capita (US\$) | 56,337 ²⁰²¹ | 18 |
| Real GDP growth (%) | 4.2 ²⁰²¹ | 44 |
| Consumer price inflation (%) | 2.82 ²⁰²¹ | 29 |
| Unemployment rate (%) | 5.10 ²⁰²¹ | 24 |
| Labor force (millions) | 13.84 ²⁰²¹ | 25 |
| Current account balance (% of GDP) | 3.55 ²⁰²¹ | 19 |
| Direct investment stocks inward (\$bn) | 790.7 ²⁰²⁰ | 13 |
| Direct investment flows inward (% of GDP) | 1.45 ²⁰²⁰ | 34 |

PROVIDED BY: CEDA - Committee for Economic Development of Australia

COMPETITIVENESS LANDSCAPE





Competitiveness Evolution & Attractiveness Indicators

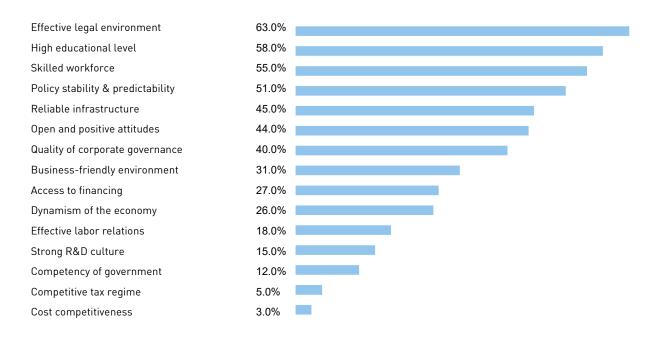
COMPETITIVENESS EVOLUTION

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 2021 | WCY 2022 | DECLINES | WCY 2021 | WCY 2022 |
|--|-------------|-------------|--|-------------|-------------|
| 1.1.18 Gross fixed capital formation - real growth | -3.00 | 9.22 | 1.5.01 Consumer price inflation | 0.90 | 2.82 |
| 1.1.14 Real GDP growth | -2.4 | 4.2 | 2.4.07 Government subsidies | 1.42 | 2.82 |
| 1.1.15 Real GDP growth per capita | -3.70 | 4.51 | 4.1.07 Population - growth | 1.31 | 0.18 |
| 3.4.10 Social responsibility | 3.98 | 6.26 | 2.1.02 Government budget surplus/deficit (%) | -4.33 | -6.18 |
| 2.3.13 Bribery and corruption | 4.23 | 6.40 | 1.2.25 Tourism receipts | 3.29 | 1.94 |
| 4.4.25 Sustainable development | 4.51 | 6.53 | 3.2.14 Labor force - long-term growth | 1.62 | 0.96 |
| 2.3.11 Transparency | 4.09 | 5.82 | 1.1.13 Economic complexity index | -0.14 | -0.19 |
| 1.2.02 Current account balance | 2.51 | 3.55 | 1.5.06 Gasoline prices | 0.92 | 1.15 |
| 3.4.05 Corporate boards | 4.43 | 6.26 | 1.2.13 Exports of commercial services (%) | 3.52 | 2.73 |
| 1.2.08 Exports of goods (\$bn) | 250.35 | 343.59 | 2.3.12 Bureaucracy | 5.64 | 4.46 |
| 3.4.04 Credibility of managers | 4.39 | 6.00 | 3.2.18 Skilled labor | 5.79 | 4.60 |
| 1.4.04 Employment - long-term growth | 0.86 | 1.16 | 2.4.16 Labor regulations | 7.11 | 5.74 |
| 4.2.17 Cyber security | 4.52 | 6.08 | 3.1.07 Workforce productivity | 6.89 | 5.64 |
| 2.3.07 Foreign currency reserves per capita | 1,674 | 2,247 | 3.2.01 Compensation levels | 27.18 | 31.47 |
| 2.1.08 Tax evasion | 4.32 | 5.78 | 2.2.11 Real personal taxes | 6.98 | 5.88 |

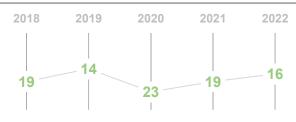
KEY ATTRACTIVENESS INDICATORS

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.



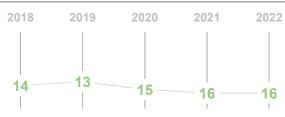
Competitiveness Trends – Factor Breakdown

ECONOMIC PERFORMANCE



| SUB-FACTOR RANKINGS : | 2021 | 2022 |
|--------------------------|------|------|
| Domestic Economy | 19 | 23 |
| International Trade | 44 | 38 |
| International Investment | 14 | 13 |
| Employment | 20 | 14 |
| Prices | 27 | 38 |
| | | |

GOVERNMENT EFFICIENCY



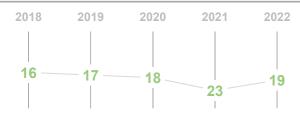
| SUB-FACTOR RANKINGS : | 2021 | 2022 |
|-------------------------|------|------|
| Public Finance | 25 | 20 |
| Tax Policy | 19 | 25 |
| Institutional Framework | 19 | 18 |
| Business Legislation | 13 | 11 |
| Societal Framework | 22 | 19 |

BUSINESS EFFICIENCY



| SUB-FACTOR RANKINGS : | 2021 | 2022 |
|---------------------------|------|------|
| Productivity & Efficiency | 23 | 28 |
| Labor Market | 29 | 32 |
| Finance | 17 | 10 |
| Management Practices | 58 | 33 |
| Attitudes and Values | 40 | 27 |
| | | |

INFRASTRUCTURE



| SUB-FACTOR RANKINGS : | 2021 | 2022 |
|------------------------------|------|------|
| Basic Infrastructure | 27 | 21 |
| Technological Infrastructure | 29 | 29 |
| Scientific Infrastructure | 22 | 22 |
| Health and Environment | 12 | 10 |
| Education | 17 | 09 |

Balance Sheet – Factor Breakdown

ECONOMIC PERFORMANCE

| STRENGTHS | Rank |
|---|------|
| 1.2.24 Terms of trade index | 01 |
| 1.5.05 Food costs | 08 |
| 1.3.13 Relocation threats of business | 09 |
| 1.1.20 GDP per capita | 10 |
| 1.1.19 Resilience of the economy | 10 |
| 1.3.07 Direct investment stocks inward (\$bn) | 13 |
| 1.3.03 Direct investment stocks abroad (\$bn) | 15 |
| 1.4.10 Youth exclusion | 15 |
| 1.4.09 Youth unemployment | 15 |
| 1.4.02 Employment (%) | 16 |

| WEAKNESSES | Rank |
|---|------|
| 1.1.13 Economic complexity index | 57 |
| 1.5.04 Office rent | 56 |
| 1.2.17 Export concentration by partner | 55 |
| 1.2.23 Trade to GDP ratio | 54 |
| 1.2.13 Exports of commercial services (%) | 52 |
| 1.2.18 Export concentration by product | 52 |
| 1.5.02 Cost-of-living index | 49 |
| 1.2.09 Exports of goods (%) | 46 |
| 1.1.14 Real GDP growth | 44 |
| 1.1.15 Real GDP growth per capita | 35 |

GOVERNMENT EFFICIENCY

| STRENGTHS | Rank |
|--|------|
| 2.3.04 Country credit rating | 01 |
| 2.4.14 Start-up days | 05 |
| 2.4.01 Tariff barriers | 05 |
| 2.5.01 Justice | 06 |
| 2.4.15 Start-up procedures | 06 |
| 2.4.12 New business density | 07 |
| 2.2.10 Employee social security tax rate | 07 |
| 2.4.02 Protectionism | 07 |
| 2.4.10 Competition legislation | 07 |
| 2.5.11 Equal opportunity | 07 |

| WEAKNESSES | Rank |
|--|------|
| 2.2.02 Collected personal income tax | 55 |
| 2.2.07 Corporate tax rate on profit | 55 |
| 2.5.09 Income distribution - lowest 40% | 51 |
| 2.3.03 Interest rate spread | 46 |
| 2.1.02 Government budget surplus/deficit (%) | 45 |
| 2.5.15 Disposable Income | 45 |
| 2.4.07 Government subsidies | 44 |
| 2.3.07 Foreign currency reserves per capita | 41 |
| 2.2.01 Collected total tax revenues | 30 |

BUSINESS EFFICIENCY

| STRENGTHS | Rank |
|--|------|
| 3.3.08 Stock markets | 06 |
| 3.3.04 Access to financial services | 07 |
| 3.3.19 Corporate debt | 08 |
| 3.2.17 Foreign labor force - migrant stock | 09 |
| 3.3.01 Banking sector assets | 11 |
| 3.2.22 Foreign highly-skilled personnel | 12 |
| 3.2.16 Female labor force | 12 |
| 3.3.14 Shareholders' rights | 13 |
| 3.2.20 Attracting and retaining talents | 14 |
| 3.2.12 Labor force (%) | 14 |

| WEAKNESSES | Rank |
|---|------|
| 3.4.09 Entrepreneurship | 61 |
| 3.2.01 Compensation levels | 57 |
| 3.2.03 Remuneration in services professions | 50 |
| 3.2.23 International experience | 49 |
| 3.2.09 Apprenticeships | 49 |
| 3.2.06 Working hours | 48 |
| 3.1.08 Large corporations | 48 |
| 3.2.10 Employee training | 44 |
| 3.2.18 Skilled labor | 42 |
| 3.1.07 Workforce productivity | 41 |

INFRASTRUCTURE

| STRENGTHS | Rank |
|---|------|
| 4.4.24 Environmental agreements | 01 |
| 4.5.09 Student mobility inbound | 02 |
| 4.4.05 Universal health coverage index | 03 |
| 4.2.01 Investment in Telecommunications | 04 |
| 4.4.06 Life expectancy at birth | 06 |
| 4.4.17 Exposure to particle pollution | 07 |
| 4.5.17 University education index | 07 |
| 4.5.08 Women with degrees | 07 |
| 4.2.02 Mobile Broadband subscribers | 08 |
| 4.4.11 Human development index | 08 |

| WEAKNESSES | Rank |
|--|------|
| 4.3.11 Graduates in Sciences | 52 |
| 4.2.03 Mobile Telephone costs | 49 |
| 4.2.04 Communications technology | 47 |
| 4.4.18 Renewable energies (%) | 47 |
| 4.2.08 Internet bandwidth speed | 45 |
| 4.3.19 Medium- and high-tech value added | 45 |
| 4.2.16 ICT service exports | 45 |
| 4.1.04 Access to water | 41 |
| 4.1.15 Energy infrastructure | 40 |
| 4.1.09 Dependency ratio | 39 |

Extended Country Profile

1 · Economic Performance

| 1.1 · Domestic Economy | Value | Average R | ank 'ear |
|--|---------|------------|-------------------|
| | | | |
| 1.1.00 · Exchange Rate | 1.331 : | 21,532.090 | 202 |
| National currency per US\$ (average) | 4 000 0 | 4 004 4 | 11 202 |
| 1.1.01 · Gross Domestic Product (GDP) | 1,632.0 | 1,394.4 | 11 -02 |
| US\$ billions 1.1.02 · GDP (PPP) | 1 450 4 | 1 001 0 | 18 ²⁰² |
| | 1,450.1 | 1,981.9 | 18 |
| Estimates ; US\$ billions at purchasing power parity 1.1.03 · World GDP contribution | 1 70 | 1 1 1 | 11 202 |
| Percentage share of world GDP in market prices | 1.70 | 1.44 | 11 . |
| 1.1.04 · Household consumption expenditure (\$bn) | 821.2 | 735.2 | 12 202 |
| US\$ billions | 021.2 | 755.2 | 12 |
| 1.1.05 · Household consumption expenditure (%) | 50.3 | 53.4 | 40 202 |
| Percentage of GDP | 50.5 | 55.4 | 40 |
| 1.1.06 · Government consumption expenditure (\$bn) | 345.0 | 232.9 | 10 202 |
| US\$ billions | 5-5.0 | 202.0 | 10 |
| 1.1.07 · Government consumption expenditure (%) | 21.1 | 18.3 | 22 202 |
| Percentage of GDP | 21.1 | 10.5 | 22 |
| 1.1.08 · Gross fixed capital formation (\$bn) | 373.1 | 351.9 | 11 202 |
| US\$ billions | 575.1 | 001.0 | |
| 1.1.09 · Gross fixed capital formation (%) | 22.9 | 22.7 | 33 202 |
| Percentage of GDP | 22.5 | 22.1 | 00 |
| 1.1.10 · Gross domestic savings (\$bn) | 465.8 | 379.1 | 11 202 |
| US\$ billions | 403.0 | 575.1 | |
| 1.1.11 · Gross domestic savings (%) | 28.5 | 28.3 | 29 ²⁰² |
| Percentage of GDP | 20.3 | 20.5 | 23 |
| 1.1.12 · Economic sectors | | | 202 |
| Breakdown of the economic sectors, percentage of GDP | | | |
| Economic sectors / Agriculture | 2.7 | 3.7 | 202 |
| | 2.1 | 5.7 | |
| Economic sectors / Industry | 24.7 | 29.1 | 202 |
| Economic sectors / Services | 72.7 | 67.0 | 202 |
| 1.1.13 · Economic complexity index | -0.19 | 0.86 | 57 ²⁰¹ |
| Measures knowledge intensity, by considering exports | | | |
| 1.1.14 · Real GDP growth | 4.2 | 5.6 | 44 202 |
| Percentage change, based on national currency in constant prices | | | |
| 1.1.15 · Real GDP growth per capita | 4.51 | 5.35 | 35 202 |
| Percentage change, based on national currency in constant prices | | | |
| 1.1.16 · Household consumption expenditure - real growth | 4.81 | 4.78 | 32 202 |
| Percentage change, based on constant prices | | | |
| 1.1.17 · Government consumption expenditure - real growth | 5.02 | 4.01 | 21 202 |
| Percentage change, based on constant prices | | | |
| 1.1.18 · Gross fixed capital formation - real growth | 9.22 | 6.32 | 23 202 |
| Percentage change, based on constant prices | | | |
| 1.1.19 · Resilience of the economy | 7.36 | 5.88 | 10 202 |
| Resilience of the economy to economic cycles is strong | | | |
| 1.1.20 · GDP per capita | 63,405 | 34,279 | 10 202 |
| US\$ per capita | , | , | |
| 1.1.21 · GDP (PPP) per capita | 56,337 | 44,580 | 18 ²⁰² |
| Estimates; US\$ per capita at purchasing power parity | , | , | |
| 1.1.22 · Forecast: Real GDP growth | 4.3 | 3.7 | 22 202 |
| Percentage change, based on national currency in constant prices | | | |
| 1.1.23 · Forecast: Inflation | 3.3 | 38.4 | 14 ²⁰² |
| Percentage change | 0.0 | 50 | |
| 1.1.24 · Forecast: Unemployment | 3.8 | 6.3 | 16 ²⁰² |
| Percentage of total labor force | 5.0 | 0.0 | |
| 1.1.25 · Forecast: Current account balance | -3.3 | 1.7 | 53 ²⁰² |
| | -0.0 | 1.7 | |

| 1.2 · International Trade | Value A | Average F | Rank 'ear |
|---|---------|-----------|---------------------------|
| 1.2.01 · Current account balance (\$bn) | 57.9 | 10.4 | 11 ²⁰²¹ |
| US\$ billions (minus sign = deficit) | | | |
| 1.2.02 · Current account balance | 3.55 | 1.64 | 19 ²⁰²¹ |
| Percentage of GDP | | | |
| 1.2.03 · Balance of trade (\$bn) | 82.3 | -2.5 | 5 ²⁰²¹ |
| US\$ billions (minus sign = deficit) | | | |
| 1.2.04 · Balance of trade (%) | 5.04 | 0.27 | 17 ²⁰²¹ |
| Percentage of GDP | | | |
| 1.2.05 · Balance of commercial services (\$bn) | 5.79 | 8.39 | 22 ²⁰²¹ |
| US\$ billions (minus sign = deficit) | | | |
| 1.2.06 · Balance of commercial services (%) | 0.35 | 1.84 | 33 ²⁰²¹ |
| Percentage of GDP | | | 0004 |
| 1.2.07 · World exports contribution | 1.38 | 1.45 | 22 ²⁰²¹ |
| Percentage share of world exports (goods and commercial services) | | | 2021 |
| 1.2.08 · Exports of goods (\$bn) | 343.59 | 321.20 | 20 2021 |
| US\$ billions | | | 46 2021 |
| 1.2.09 · Exports of goods (%) | 21.05 | 41.98 | 46 202 |
| Percentage of GDP | 10.010 | 15 0 10 | 25 ²⁰²¹ |
| 1.2.10 · Exports of goods per capita | 13,349 | 15,049 | 25 202 |
| US\$ per capita 1.2.11 · Exports of goods - growth | 20.00 | 07.00 | 11 ²⁰²¹ |
| | 36.99 | 27.30 | 11 |
| Percentage change, based on US\$ values | 44.57 | 00.04 | 27 ²⁰²¹ |
| 1.2.12 · Exports of commercial services (\$bn) | 44.57 | 88.34 | 27 |
| US\$ billions 1.2.13 · Exports of commercial services (%) | 2.73 | 15 10 | 52 ²⁰²¹ |
| Percentage of GDP | 2.13 | 15.10 | 52 |
| 1.2.14 · Exports of commercial services - growth | -8.50 | 17.14 | 59 ²⁰² |
| Percentage change, based on US\$ values | -8:50 | 17.14 | 59 |
| 1.2.15 · Exports of goods & commercial services | 388.17 | 408.43 | 22 ²⁰²¹ |
| US\$ billions | 500.17 | 400.40 | 22 |
| 1.2.16 · Exports breakdown by economic sector | | | 2020 |
| Percentage of total exports | | | |
| Exports breakdown by economic sector / Agriculture | 10.5 | 11.3 | 2020 |
| Exports breakdown by economic sector / Industry | 73.2 | 64.4 | 2020 |
| | | | |
| Exports breakdown by economic sector / Services | 16.3 | 24.3 | 2020 |
| 1.2.17 · Export concentration by partner | 69.5 | 55.0 | 55 ²⁰²⁰ |
| Exports to top 5 countries, percentage of total exports | | | |
| 1.2.18 · Export concentration by product | 71.4 | 57.6 | 52 ²⁰²⁰ |
| Top 5 products, percentage of total exports | | | |
| 1.2.19 · Imports of goods & commercial services (\$bn) | 300.0 | 402.5 | 40 202 |
| US\$ billions | | | |
| 1.2.20 · Imports of goods & commercial services (%) | 18.4 | 54.7 | 6 202 |
| Percentage of GDP | | | 000 |
| 1.2.21 · Imports of goods & commerc. services growth | 20.08 | 24.33 | 18 ²⁰² |
| Percentage change, based on US\$ values | | | 0000 |
| 1.2.22 · Imports breakdown by economic sector | | | 2020 |
| Percentage of total imports | | | 0000 |
| Imports breakdown by economic sector / Agriculture | 7.0 | 9.0 | 2020 |
| Imports breakdown by economic sector / Industry | 77.7 | 67.7 | 2020 |
| Imports breakdown by economic sector / Services | 15.2 | 23.3 | 2020 |
| 1.2.23 · Trade to GDP ratio | 40.61 | 102.61 | 54 ²⁰²⁰ |
| (Exports + Imports) / GDP | | | |
| 1.2.24 · Terms of trade index | 131.2 | 99.4 | 1 2020 |
| Unit value of exports over unit value of imports | | | |
| 1.2.25 · Tourism receipts | 1.94 | 1.54 | 18 2020 |
| International tourism receipts as a percentage of GDP | | | |

| 1.3 · International Investment | | /alue Average Rank 'ear | | |
|--|--------|-------------------------|--------------------|--|
| 1.3.01 · Direct investment flows abroad (\$bn) | 12.47 | 14.96 | 16 ²⁰²⁰ | |
| US\$ billions | | | 2020 | |
| 1.3.02 · Direct investment flows abroad (% of GDP) | 0.92 | 4.62 | 29 2020 | |
| Percentage of GDP | | | 2020 | |
| 1.3.03 · Direct investment stocks abroad (\$bn) | 627.3 | 612.1 | 15 ²⁰²⁰ | |
| US\$ billions | | 100 57 | 25 ²⁰²⁰ | |
| 1.3.04 · Direct investment stocks abroad (% of GDP) | 46.36 | 109.57 | 25 2020 | |
| Percentage of GDP | | | 18 ²⁰²⁰ | |
| 1.3.05 · Direct investment flows inward (\$bn) | 19.64 | 16.61 | 18 2020 | |
| US\$ billions 1.3.06 · Direct investment flows inward (% of GDP) | 4.45 | 4.00 | 34 2020 | |
| | 1.45 | 4.86 | 34 | |
| Percentage of GDP 1.3.07 · Direct investment stocks inward (\$bn) | 790.7 | 613.9 | 13 2020 | |
| US\$ billions | 790.7 | 015.9 | 15 | |
| 1.3.08 · Direct investment stocks inward (% of GDP) | 58.44 | 122.21 | 26 2020 | |
| Percentage of GDP | | | | |
| 1.3.09 · Balance of direct investment flows (\$bn) | -7.17 | -1.64 | 50 ²⁰²⁰ | |
| US\$ billions (flows abroad minus flows inward) | | | | |
| 1.3.10 · Balance of direct investment flows (%) | -0.53 | -0.24 | 28 2020 | |
| Percentage of GDP (flows abroad minus flows inward) | | | | |
| 1.3.11 · Net position in direct investment stocks (\$bn) | -163.4 | -1.8 | 56 ²⁰²⁰ | |
| US\$ billions (stocks abroad minus stocks inward) | | | | |
| 1.3.12 · Net position in direct investment stocks (%) | -12.08 | -12.64 | 29 ²⁰²⁰ | |
| Percentage of GDP (stocks abroad minus stocks inward) | | | | |
| 1.3.13 · Relocation threats of business | 6.24 | 5.36 | 9 2022 | |
| Relocation of business is not a threat to the future of your economy | | | | |
| 1.3.14 · Portfolio investment assets | 62.73 | 38.51 | 11 ²⁰²⁰ | |
| US\$ billions | | | | |
| 1.3.15 · Portfolio investment liabilities | 49.69 | 34.92 | 10 2020 | |
| US\$ billions | | | | |

| 1.4 · Employment | Value A | Value Average Rank | | |
|--|---------|--------------------|--------------------|--|
| 1.4.01 · Employment | 13.21 | 38.16 | 26 ²⁰²¹ | |
| Total employment in millions | | | | |
| 1.4.02 · Employment (%) | 51.32 | 47.14 | 16 2021 | |
| Percentage of population | | | | |
| 1.4.03 · Employment - growth | 2.82 | 1.54 | 18 ²⁰²¹ | |
| Estimates: percentage change | | | | |
| 1.4.04 · Employment - long-term growth | 1.16 | -0.41 | 29 ²⁰²¹ | |
| Estimates: five year percentage change | | | | |
| 1.4.05 · Employment by sector | | | 2021 | |
| Percentage of total employment | | | | |
| Employment by sector / Agriculture | 2.4 | 7.7 | 2021 | |
| Employment by sector / Industry | 18.3 | 23.5 | 2021 | |
| Employment by sector / Services | 79.3 | 68.8 | 2021 | |
| 1.4.06 · Employment in the public sector | 15.29 | 17.83 | 24 2020 | |
| Percentage of total employment | | | | |
| 1.4.07 · Unemployment rate | 5.10 | 8.00 | 24 ²⁰²¹ | |
| Percentage of labor force | | | | |
| 1.4.08 · Long-term unemployment | 1.07 | 2.81 | 21 2021 | |
| Percentage of labor force | | | | |
| 1.4.09 · Youth unemployment | 9.40 | 17.13 | 15 ²⁰²¹ | |
| Percentage of youth labor force (under the age of 25) | | | | |
| 1.4.10 · Youth exclusion | 8.4 | 14.6 | 15 ²⁰¹⁹ | |
| Share of youth population (15-24) not in education, employment or training | | | | |

| 1.5 · Prices | Value A | Value Average Ranl | | |
|---|---------|--------------------|--------------------|--|
| 1.5.01 · Consumer price inflation | 2.82 | 29.25 | 29 ²⁰²¹ | |
| Average annual rate | | | | |
| 1.5.02 · Cost-of-living index | 88.70 | 78.37 | 49 ²⁰²¹ | |
| Index of a basket of goods & services in the main city, including housing (New York City = 100) | | | | |
| 1.5.03 · Apartment rent | 2,788 | 1,530 | 55 ²⁰¹⁸ | |
| 3-room apartment monthly rent in major cities, US\$ | | | | |
| 1.5.04 · Office rent | 1,116 | 656 | 56 ²⁰²¹ | |
| Total occupation cost in the main city (US\$/Sq.M. per year) | | | | |
| 1.5.05 · Food costs | 10.12 | 17.58 | 8 2021 | |
| Percentage of household final consumption expenditures | | | | |
| 1.5.06 · Gasoline prices | 1.15 | 1.26 | 27 2021 | |
| Premium unleaded gasoline (95 Ron) US\$ per litre | | | | |

Extended Country Profile

2 · Government Efficiency

| 2.1 · Public Finance | Value Averag | | Rank 'ear | |
|---|--------------|----------|--------------------|--|
| 2.1.01 · Government budget surplus/deficit (\$bn) US\$ billions | -100.81 | -91.93 | 55 ²⁰² | |
| 2.1.02 · Government budget surplus/deficit (%) Percentage of GDP | -6.18 | -4.00 | 45 ²⁰² | |
| 2.1.03 · Total general government debt (\$bn) US\$ billions | 976.04 | 1,436.31 | 51 ²⁰² | |
| 2.1.04 · Total general government debt (%) Percentage of GDP | 59.81 | 71.59 | 31 ²⁰² | |
| 2.1.05 · Total general government debt-real growth Percentage change, based on national currency in constant prices | 11.16 | 8.58 | 44 ²⁰² | |
| 2.1.06 · Interest payment (%) Percentage of current revenue | 3.46 | 5.98 | 29 202 | |
| 2.1.07 · Public finances Public finances are being efficiently managed | 5.86 | 4.92 | 19 ²⁰²² | |
| 2.1.08 · Tax evasion Tax evasion is not a threat to your economy | 5.78 | 5.05 | 23 202 | |
| 2.1.09 · Pension funding Pension funding is adequately addressed for the future | 6.63 | 4.77 | 11 ^{202;} | |
| 2.1.10 · General government expenditure Percentage of GDP | 38.8 | 38.2 | 30 202 | |

2.2 · Tax Policy

| 2.2 · Tax Policy | Value A | e Average Rank 'ear | | |
|--|---------|---------------------|--------------------|--|
| 2.2.01 · Collected total tax revenues | 28.18 | 27.09 | 30 ²⁰²⁰ | |
| Percentage of GDP | | | | |
| 2.2.02 · Collected personal income tax | 11.76 | 6.00 | 55 ²⁰²⁰ | |
| On profits, income and capital gains, as a percentage of GDP | | | | |
| 2.2.03 · Collected corporate taxes | 4.85 | 2.70 | 60 2020 | |
| On profits, income and capital gains, as a percentage of GDP | | | | |
| 2.2.04 · Collected indirect tax revenues | 7.38 | 9.41 | 20 2020 | |
| Taxes on goods and services as a percentage of GDP | | | | |
| 2.2.05 · Collected capital and property taxes | 1.72 | 1.47 | 40 2020 | |
| Percentage of GDP | | | | |
| 2.2.06 · Collected social security contribution | 0.00 | 7.28 | 1 2020 | |
| Compulsory contribution of employees and employers as a percentage of GDP | | | | |
| 2.2.07 · Corporate tax rate on profit | 30.00 | 22.34 | 55 ²⁰²¹ | |
| Maximum tax rate, calculated on profit before tax | | | | |
| 2.2.08 · Consumption tax rate | 10.00 | 16.37 | 11 ²⁰²¹ | |
| Standard rate of VAT/GST | | | | |
| 2.2.09 · Employer social security tax rate | 10.0 | 16.0 | 20 2021 | |
| % | | | | |
| 2.2.10 · Employee social security tax rate | 2.0 | 10.4 | 7 2021 | |
| % | | | | |
| 2.2.11 · Real personal taxes | 5.88 | 5.12 | 21 2022 | |
| Real personal taxes do not discourage people from working or seeking advancement | | | | |

| 2.3 · Institutional Framework | | Value Average Rank 'ea | | |
|--|-------|------------------------|---------------------------|--|
| 2.3.01 · Real short-term interest rate | -2.64 | -3.07 | 25 ²⁰²¹ | |
| Real discount / bank rate | | | | |
| 2.3.02 · Cost of capital | 6.87 | 5.63 | 12 2022 | |
| Cost of capital encourages business development | | | | |
| 2.3.03 · Interest rate spread | 3.54 | 3.49 | 46 2019 | |
| Lending rate minus deposit rate | | | | |
| 2.3.04 · Country credit rating | 60.0 | 43.0 | 1 2021 | |
| Index (0-60) of three country credit ratings: Fitch, Moody's and S&P | | | | |
| 2.3.05 · Central bank policy | 7.52 | 6.31 | 9 2022 | |
| Central bank policy has a positive impact on the economy | | | | |
| 2.3.06 · Foreign currency reserves | 57.85 | 216.77 | 34 ²⁰²¹ | |
| US\$ billions | | | | |
| 2.3.07 · Foreign currency reserves per capita | 2,247 | 9,199 | 41 2021 | |
| US\$ per capita | | | | |
| 2.3.08 · Exchange rate stability | 0.046 | 0.072 | 43 2021 | |
| Parity change from national currency to SDR, 2021 / 2019 | | | | |
| 2.3.09 · Legal and regulatory framework | 6.62 | 5.37 | 13 ²⁰²² | |
| The legal and regulatory framework encourages the competitiveness of enterprises | | | | |
| 2.3.10 · Adaptability of government policy | 5.04 | 4.83 | 28 2022 | |
| Adaptability of government policy to changes in the economy is high | | | | |
| 2.3.11 · Transparency | 5.82 | 4.87 | 22 2022 | |
| Transparency of government policy is satisfactory | | | | |
| 2.3.12 · Bureaucracy | 4.46 | 3.72 | 20 2022 | |
| Bureaucracy does not hinder business activity | | | | |
| 2.3.13 · Bribery and corruption | 6.40 | 4.77 | 20 2022 | |
| Bribery and corruption do not exist | | | | |
| 2.3.14 · Rule of law | 92.31 | 72.47 | 13 ²⁰²⁰ | |
| Rule of Law Index | | | | |
| 2.3.15 · Sustainable Development Goals | 75.6 | 75.1 | 32 ²⁰²¹ | |
| Country performance on the 17 SDGs | | | | |
| 2.3.16 · Democracy Index | 8.90 | 6.97 | 9 2021 | |
| EIU Overall Democracy Index, © The Economist Intelligence Unit Limited 2021 | | | | |

| 2.4 · Business Legislation | Value A | verage R | lank 'ear |
|--|---------|----------|--------------------|
| 2.4.01 · Tariff barriers | 0.71 | 2.32 | 5 ²⁰²⁰ |
| Tariffs on imports: Applied weighted mean tariff rate for all products | | | |
| 2.4.02 · Protectionism | 7.52 | 5.74 | 7 2022 |
| Protectionism of your government does not impair the conduct of your business | | | |
| 2.4.03 · Public sector contracts | 7.00 | 5.96 | 18 ²⁰²² |
| Public sector contracts are sufficiently open to foreign bidders | | | |
| 2.4.04 · Foreign investors | 6.92 | 6.82 | 33 ²⁰²² |
| Foreign investors are free to acquire control in domestic companies | | | |
| 2.4.05 · Capital markets | 7.78 | 6.57 | 13 2022 |
| Capital markets (foreign and domestic) are easily accessible | | | |
| 2.4.06 · Investment incentives | 6.00 | 5.93 | 35 ²⁰²² |
| Investment incentives are attractive to foreign investors | | | |
| 2.4.07 · Government subsidies | 2.82 | 2.02 | 44 ²⁰²¹ |
| To private and public companies as a percentage of GDP | | | |
| 2.4.08 · Subsidies | 5.82 | 5.52 | 26 2022 |
| Subsidies do not distort fair competition and economic development | | | |
| 2.4.09 · State ownership of enterprises | 7.68 | 6.04 | 8 2022 |
| State ownership of enterprises is not a threat to business activities | | | |
| 2.4.10 · Competition legislation | 7.28 | 5.84 | 7 2022 |
| Competition legislation is efficient in preventing unfair competition | | | |
| 2.4.11 · Parallel economy | 7.30 | 5.14 | 13 ²⁰²² |
| Parallel (black-market, unrecorded) economy does not impair economic development | | | |
| 2.4.12 · New business density | 13.6 | 5.8 | 7 2019 |
| Registered new businesses per 1'000 people aged 15-64 | | | |
| 2.4.13 · Creation of firms | 7.62 | 6.63 | 17 2022 |
| Creation of firms is supported by legislation | | | |
| 2.4.14 · Start-up days | 2.0 | 15.1 | 5 ²⁰¹⁹ |
| Number of days to start a business | | | |
| 2.4.15 · Start-up procedures | 3.0 | 6.0 | 6 2019 |
| Number of procedures to start a business | | | |
| 2.4.16 · Labor regulations | 5.74 | 5.50 | 28 2022 |
| Labor regulations (hiring/firing practices, minimum wages, etc.) do not hinder business activities | | | |
| 2.4.17 · Unemployment legislation | 6.14 | 4.99 | 14 2022 |
| Unemployment legislation provides an incentive to look for work | | | |
| 2.4.18 · Immigration laws | 5.86 | 5.83 | 33 2022 |
| Immigration laws do not prevent your company from employing foreign labor | | | |
| 2.4.19 · Redundancy costs | 8.7 | 9.4 | 34 2019 |
| Number of weeks of salary | | | |

| 2.5 · Societal Framework Value | | Average Rank 'ear | | |
|--|-------|-------------------|--------------------|--|
| 2.5.01 · Justice | 8.46 | 5.72 | 6 2022 | |
| Justice is fairly administered | | | | |
| 2.5.02 · Homicide | 0.87 | 4.28 | 24 2020 | |
| Intentional homicide, rate per 100'000 population | | | | |
| 2.5.03 · Ageing of population | 16.8 | 14.8 | 33 2021 | |
| Population over 65, percentage of total population | | | | |
| 2.5.04 · Risk of political instability | 7.80 | 5.80 | 16 2022 | |
| The risk of political instability is very low | | | | |
| 2.5.05 · Social cohesion | 7.22 | 5.68 | 12 2022 | |
| Social cohesion is high | | | | |
| 2.5.06 · Gini coefficient | 34.30 | 35.03 | 32 2018 | |
| Equal distribution of income scale: 0 (absolute equality) to 100 (absolute inequality) | | | | |
| 2.5.07 · Income distribution - lowest 10% | 3.30 | 2.75 | 2017 | |
| Percentage of household incomes going to lowest 10% of households | | | | |
| 2.5.08 · Income distribution - highest 10% | 23.60 | 26.98 | 2017 | |
| Percentage of household incomes going to highest 10% of households | | | | |
| 2.5.09 · Income distribution - lowest 40% | 13.30 | 18.99 | 51 ²⁰¹⁸ | |
| Percentile going to the lowest 40% of households | | | | |
| 2.5.10 · Income distribution - lowest 40% growth | - | 0.34 | | |
| Percentile going to the lowest 40% of households - growth | | | | |
| 2.5.11 · Equal opportunity | 7.54 | 6.17 | 7 2022 | |
| Equal opportunity legislation in your economy encourages economic development | | | | |
| 2.5.12 · Females in parliament | 31.13 | 29.11 | 25 ²⁰²¹ | |
| Percentage of total seats in Parliament | | | | |
| 2.5.13 · Unemployment rate - gender ratio | 1.02 | 1.25 | 28 2021 | |
| Ratio of the female and male unemployement rates | | | | |
| 2.5.14 · Gender inequality | 0.097 | 0.183 | 27 2019 | |
| Gender Inequality Index (UNDP) | | | | |
| 2.5.15 · Disposable Income | 68.0 | 72.2 | 45 ²⁰²¹ | |
| Female / male ratio | | | | |
| 2.5.16 · Freedom of the Press | 19.79 | 27.85 | 21 2021 | |
| Reporters Without Borders: World Press Freedom Score | | | | |
| | | | | |

Extended Country Profile

3 · Business Efficiency

| 3.1 · Productivity & Efficiency | Productivity & Efficiency Value Average R | | Rank 'ear | |
|--|---|---------|--------------------|--|
| 3.1.01 · Overall productivity (PPP) | 103,602 | 84,576 | 22 ²⁰²¹ | |
| Estimates: GDP (PPP) per person employed, US\$ | | | | |
| 3.1.02 · Overall productivity (PPP) - real growth | 3.65 | 2.84 | 27 2021 | |
| Estimates: Percentage change of GDP (PPP) per person employed | | | | |
| 3.1.03 · Labor productivity (PPP) | 64.73 | 48.28 | 16 ²⁰²¹ | |
| Estimates: GDP (PPP) per person employed per hour, US\$ | | | | |
| 3.1.04 · Agricultural productivity (PPP) | 122,323 | 55,834 | 6 2021 | |
| Estimates: Related GDP (PPP) per person employed in agriculture, US\$ | | | | |
| 3.1.05 · Productivity in industry (PPP) | 147,905 | 107,180 | 13 ²⁰²¹ | |
| Estimates: Related GDP (PPP) per person employed in industry, US\$ | | | | |
| 3.1.06 · Productivity in services (PPP) | 100,605 | 86,235 | 22 2021 | |
| Estimates: Related GDP (PPP) per person employed in services, US\$ | | | | |
| 3.1.07 · Workforce productivity | 5.64 | 6.15 | 41 2022 | |
| Workforce productivity is competitive by international standards | | | | |
| 3.1.08 · Large corporations | 6.14 | 6.67 | 48 2022 | |
| Large corporations are efficient by international standards | | | | |
| 3.1.09 · Small and medium-size enterprises | 6.54 | 6.12 | 27 2022 | |
| Small and medium-size enterprises are efficient by international standards | | | | |
| 3.1.10 · Use of digital tools and technologies | 6.34 | 6.29 | 27 2022 | |
| Companies are very good at using digital tools and technologies to improve performance | | | | |

| 3.2 · Labor Market | Value | Average F | Rank 'ear |
|---|---------|-----------|--------------------|
| 3.2.01 · Compensation levels | 31.47 | 15.09 | 57 ²⁰²¹ |
| Total hourly compensation in manufacturing (wages + supplementary benefits), US\$ 3.2.02 · Unit labor costs for total economy | 0.40 | 1.59 | 17 2021 |
| Percentage change | | | 50 ²⁰¹⁸ |
| 3.2.03 · Remuneration in services professions Gross annual income including supplements such as bonuses, US\$ | 46,494 | 28,619 | 50 2010 |
| Remuneration in services professions / Call center agent | 35,702 | 19,099 | 2018 |
| Remuneration in services professions / Nurse | 54,672 | 30,277 | 2018 |
| Remuneration in services professions / Primary school | 55,553 | 30,970 | 2018 |
| Remuneration in services professions / Product Manager | 67,116 | 49,302 | 2018 |
| Remuneration in services professions / Sales Assistant | 35,030 | 19,165 | 2018 |
| | · | 19,100 | |
| Remuneration in services professions / Secretary / Personal | 30,889 | 22,903 | 2018 |
| 3.2.04 · Remuneration of management Total base salary plus bonuses and long-term incentives, US\$ | 156,674 | 169,169 | 28 ²⁰¹⁹ |
| Remuneration of management / CEO | 286,548 | 306,535 | 2019 |
| Remuneration of management / Director manufacturing | 148,296 | 149,356 | 2019 |
| Remuneration of management / Engineer | 72,555 | 80,327 | 2019 |
| Remuneration of management / Human resources director | 119 296 | 140,455 | 2019 |
| | | | 15 ²⁰¹⁸ |
| 3.2.05 · Remuneration spread Ratio of CEO to personal assistant remuneration | 9.87 | 17.99 | 15 2010 |
| 3.2.06 · Working hours | 1,600 | 1,843 | 48 2021 |
| Average number of working hours per year 3.2.07 · Worker motivation | 5.96 | 5.87 | 31 2022 |
| Worker motivation in companies is high | | 10.01 | 28 2020 |
| 3.2.08 · Industrial disputes Working days lost per 1,000 inhabitants per year (average 2018-2020) | 2.69 | 12.21 | 28 2020 |
| 3.2.09 · Apprenticeships | 4.48 | 5.20 | 49 ²⁰²² |
| Apprenticeships are sufficiently implemented 3.2.10 · Employee training | 5.55 | 6.03 | 44 2022 |
| Employee training is a high priority in companies 3.2.11 · Labor force | 13.84 | 40.47 | 25 ²⁰²¹ |
| Employed and registered unemployed (millions) | 10.01 | 10.11 | |
| 3.2.12 · Labor force (%) Percentage of population | 53.77 | 50.09 | 14 ²⁰²¹ |
| 3.2.13 · Labor force growth | 0.31 | 1.18 | 38 2021 |
| Percentage change 3.2.14 · Labor force - long-term growth | 0.96 | -0.67 | 24 2021 |
| Estimates: five year percentage change 3.2.15 · Part-time employment | 25.54 | 15.19 | 9 ²⁰¹⁹ |
| Percentage of total employment | 20.04 | 15.19 | |
| 3.2.16 · Female labor force Percentage of total labor force | 47.44 | 42.68 | 12 ²⁰²¹ |
| 3.2.17 · Foreign labor force - migrant stock | 35.99 | 17.76 | 9 2020 |
| Migrant stock, age 20-64, % of population 3.2.18 · Skilled labor | 4.60 | 5.21 | 42 2022 |
| Skilled labor is readily available | | | 24 2022 |
| 3.2.19 · Finance skills Finance skills are readily available | 6.56 | 6.07 | |
| 3.2.20 · Attracting and retaining talents | 7.70 | 6.82 | 14 ²⁰²² |
| Attracting and retaining talents is a priority in companies 3.2.21 · Brain drain | 5.66 | 4.93 | 22 2022 |
| Brain drain (well-educated and skilled people) does not hinder competitiveness in your economy 3.2.22 · Foreign highly-skilled personnel | 6.85 | 5.39 | 12 2022 |
| Foreign highly-skilled personnel are attracted to your country's business environment | 0.0 | 5.58 | |
| 3.2.23 · International experience International experience of senior managers is generally significant | 4.89 | 5.62 | 49 ²⁰²² |
| 3.2.24 · Competent senior managers | 5.46 | 5.45 | 32 2022 |
| Competent senior managers are readily available | | | |

| 3.3 · Finance | Value Average Rank 'e | | lank 'ear |
|--|-----------------------|---------|--------------------|
| 3.3.01 · Banking sector assets | 206.77 | 157.54 | 11 ²⁰²¹ |
| Percentage of GDP | | | |
| 3.3.02 · Financial cards in circulation | 5.55 | 3.45 | 10 2021 |
| Number of cards per capita | | | |
| 3.3.03 · Financial card transactions | 25,514 | 11,334 | 5 2021 |
| US\$ per capita | | | |
| 3.3.04 · Access to financial services | 99.52 | 82.66 | 7 2017 |
| Proportion of adults with a bank account or mobile-money-service provider | | | |
| 3.3.05 · Access to financial services - gender ratio | 0.99 | 0.96 | 27 2017 |
| Ratio of the female and male access to a bank account or mobile-money-service provider | | | |
| 3.3.06 · Banking and financial services | 6.92 | 6.24 | 19 ²⁰²² |
| Banking and financial services do support business activities efficiently | | | |
| 3.3.07 · Regulatory compliance (banking laws) | 7.48 | 6.92 | 21 2022 |
| Regulatory compliance is sufficiently developed | | | |
| 3.3.08 · Stock markets | 7.68 | 5.83 | 6 2022 |
| Stock markets provide adequate financing to companies | | | |
| 3.3.09 · Stock market capitalization (\$bn) | 1,954.4 | 1,470.4 | 14 2021 |
| US\$ billions | | | |
| 3.3.10 · Stock market capitalization (%) | 119.76 | 105.47 | 17 2021 |
| Percentage of GDP | | | |
| 3.3.11 · Value traded on stock markets | 47,723 | 23,478 | 7 2020 |
| US\$ per capita | | | |
| 3.3.12 · Listed domestic companies | 1,902 | 718 | 9 2020 |
| Number of listed domestic companies | | | |
| 3.3.13 · Stock market index | 17.40 | 26.39 | 43 2021 |
| Percentage change on index in national currency | | | |
| 3.3.14 · Shareholders' rights | 7.86 | 6.91 | 13 2022 |
| Shareholders' rights are sufficiently implemented | | | |
| 3.3.15 · Initial Public Offerings | 4,389.5 | 4,258.5 | 12 2021 |
| By acquiror nation (average 2019-2021) US\$ millions | | | |
| 3.3.16 · Credit | 7.06 | 6.05 | 16 2022 |
| Credit is easily available for business | | | |
| 3.3.17 · Venture capital | 5.94 | 5.34 | 23 2022 |
| Venture capital is easily available for business | | | |
| 3.3.18 · M&A Activity | 0.626 | 1.193 | 28 2020 |
| Deals per listed company (average 2018-2020) | | | |
| 3.3.19 · Corporate debt | 7.27 | 5.83 | 8 2022 |
| Corporate debt does not restrain the ability of enterprises to compete | | | |

| 3.4 · Management Practices | Value A | verage R | ank 'ear |
|--|---------|----------|--------------------|
| 3.4.01 · Agility of companies | 5.76 | 6.08 | 39 ²⁰²² |
| Companies are agile | | | |
| 3.4.02 · Changing market conditions | 6.88 | 6.69 | 29 ²⁰²² |
| Companies are generally extremely aware of changing market conditions | | | |
| 3.4.03 · Opportunities and threats | 6.06 | 6.29 | 41 2022 |
| Companies are very good at responding quickly to opportunities and threats | | | |
| 3.4.04 · Credibility of managers | 6.00 | 6.15 | 39 ²⁰²² |
| Credibility of managers in society is strong | | | |
| 3.4.05 · Corporate boards | 6.26 | 6.17 | 29 2022 |
| Corporate boards do supervise the management of companies effectively | | | |
| 3.4.06 · Auditing and accounting practices | 7.74 | 7.25 | 24 2022 |
| Auditing and accounting practices are adequately implemented in business | | | |
| 3.4.07 · Use of big data and analytics | 5.37 | 5.33 | 30 2022 |
| Companies are very good at using big data and analytics to support decision-making | | | |
| 3.4.08 · Customer satisfaction | 6.85 | 6.95 | 37 2022 |
| Customer satisfaction is emphasized in companies | | | |
| 3.4.09 · Entrepreneurship | 5.09 | 6.07 | 61 2022 |
| Entrepreneurship of managers is widespread in business | | | |
| 3.4.10 · Social responsibility | 6.26 | 6.16 | 30 2022 |
| Social responsibility of business leaders is high | | | |
| 3.4.11 · Women in management | 32.50 | 31.46 | 30 2020 |
| Female share of senior and middle management (% of management) | | | |
| 3.4.12 · Women on boards | 34.80 | 24.22 | 13 ²⁰²¹ |
| Boardmembers of all companies analyzed by MSCI | | | |
| 3.4.13 · Entrepreneurial fear of failure | 47.37 | 42.81 | 33 2019 |
| % indicating that fear of failure would prevent them from setting up a business | | | |
| 3.4.14 · Total early-stage Entrepreneurial Activity | 10.52 | 12.11 | 25 ²⁰¹⁹ |
| % who are either a nascent entrepreneur or owner-manager of a new business | | | |
| 3.5 · Attitudes and Values | Value A | verage R | ank 'ear |
| 3.5.01 · Attitudes toward globalization | 6.42 | 6.47 | 35 ²⁰²² |
| Attitudes toward globalization are generally positive in your society | | | |
| 3.5.02 · Image abroad or branding | 7.23 | 6.44 | 21 2022 |
| The image abroad of your country encourages business development | | | |
| 3.5.03 · National culture | 7.26 | 6.82 | 23 2022 |
| The national culture is open to foreign ideas | | | |
| 3.5.04 · Flexibility and adaptability | 7.02 | 6.63 | 24 2022 |
| Flexibility and adaptability of people are high when faced with new challenges | | | |
| 3.5.05 · Need for economic and social reforms | 5.78 | 5.88 | 34 2022 |
| The need for economic and social reforms is generally well understood | | | |
| 3.5.06 · Digital transformation in companies | 5.56 | 5.95 | 36 2022 |
| Digital transformation in companies is generally well implemented | | | |
| 3.5.07 · Value system | 6.88 | 6.23 | 20 2022 |

The value system in your society supports competitiveness

Extended Country Profile

4 · Infrastructure

| 4.1 · Basic Infrastructure | Value | Average F | Rank 'ear |
|--|--------|-----------|---------------------------|
| 4.1.01 · Land area | 7,741 | 1,207 | 5 ²⁰²¹ |
| Square kilometers ('000) | ., | .,201 | Ū |
| 4.1.02 · Arable area | 12,190 | 2,704 | 2 2019 |
| Square meters per capita | | | |
| 4.1.03 · Water resources | 19,761 | 18,375 | 10 2018 |
| Total internal renewable per capita in cubic meters | | | |
| 4.1.04 · Access to water | 7.58 | 7.90 | 41 2022 |
| Access to water is adequately ensured and managed | | | |
| 4.1.05 · Management of cities | 7.34 | 6.61 | 21 2022 |
| Management of cities supports business development | | | |
| 4.1.06 · Population - market size | 25.74 | 81.51 | 26 2021 |
| Estimates in millions | | | |
| 4.1.07 · Population - growth | 0.18 | 0.30 | 39 ²⁰²¹ |
| Percentage change | | | |
| 4.1.08 · Dependent Population | 35.4 | 33.6 | 2021 |
| Percentage of total population | | | |
| Population over 65 years | 16.8 | 14.8 | 2021 |
| Population under 15 years | 18.5 | 18.7 | 2021 |
| 4.1.09 · Dependency ratio | 54.7 | 51.2 | 39 ²⁰²¹ |
| Population under 15 and over 64 years old, divided by active population (15 to 64 years) | | | |
| 4.1.10 · Roads | 0.12 | 1.39 | 48 ²⁰¹⁵ |
| Density of the network, km roads/square km land area | | | |
| 4.1.11 · Railroads | 0.001 | 0.049 | 55 ²⁰²⁰ |
| Density of the network, km per square km | | | |
| 4.1.12 · Air transportation | 23,627 | 27,297 | 22 2020 |
| Number of passengers carried by main companies, thousands | | | |
| 4.1.13 · Quality of air transportation | 8.08 | 7.07 | 16 ²⁰²² |
| Quality of air transportation encourages business development | | | |
| 4.1.14 · Distribution infrastructure | 7.54 | 7.12 | 28 2022 |
| The distribution infrastructure of goods and services is generally efficient | | | |
| 4.1.15 · Energy infrastructure | 6.50 | 6.81 | 40 2022 |
| Energy infrastructure is adequate and efficient | | | |
| 4.1.16 · Total indigenous energy production | 444.80 | 169.14 | 7 2019 |
| Millions MTOE | | | |
| 4.1.17 · Total indigenous energy production (%) | 345.5 | 106.4 | 5 ²⁰¹⁹ |
| Percentage of total requirements in tons of oil equivalent | | | 0010 |
| 4.1.18 · Total final energy consumption | 82.34 | 122.04 | 46 ²⁰¹⁹ |
| Millions MTOE | | | |
| 4.1.19 · Total final energy consumption per capita | 3.25 | 2.46 | 49 ²⁰¹⁹ |
| MTOE per capita | | | |
| 4.1.20 · Electricity costs for industrial clients | - | 0.107 | |
| US\$ per kwh | | | |

| 4.2.01 · Investment in Telecommunications 0.72 0.42 4 2021 Percentage of GDP 93.3 71.5 8 2020 42.02 · Mobile Broadband subscribers 93.3 71.5 8 2020 42.03 · Mobile Telephone costs 22.1 15.7 49 2020 Monthly Blended Average Revenue per User 7.10 7.67 47 2022 Communications technology (voice and data) meets business requirements 39,804 36.109 18 2020 A2.06 · Communications technology (voice and data) meets business requirements 42.00 · 10 7.67 47 2022 Communications technology (voice and data) meets business requirements 42.00 · 10 7.70 7.67 47 2020 Autor of internet users per 1000 inhabitants 42.00 · 10 499 381 15 2020 Number of subscriptions per 1000 inhabitants 42.00 · Digital/Technological skills 6.59 6.77 39.2 2022 Qualified engineers are available in your labor market 42.10 · Qualified engineers are available in your labor market 42.10 · Qualified engineers are available in your labo | 4.2 · Technological Infrastructure | Technological Infrastructure Value Average F | | Rank 'ear | |
|--|--|--|--------|--------------------|--|
| 42.02 · Mobile Broadband subscribers 93.3 71.5 8 2020 46.8.50 market, % of mobile market 22.1 15.7 49 2020 42.03 · Mobile Telephone costs 22.1 15.7 49 2020 Monthy Blended Average Revenue per User 22.1 15.7 47 2022 Communications technology (voice and datal meets business requirements 20.0 7.10 7.67 47 2022 Communications technology (voice and datal meets business requirements 39,804 36,109 18 2020 publicly-trusted TLS/SSL certificates, Netcraft Secure Server Survey. 4.2.05 Secure internet users per 1000 people 42.07 Broadband subscribers 499 381 15 2020 Number of subscriptions per 1000 inhabitants 42.09 Number of subscriptions per 1000 inhabitants 42.09 93.5 45 2021 Logital/Technological skills 6.59 6.79 93 2022 Digital/Technological skills 6.59 6.79 39 2022 Qualified engineers 6.47 6.35 12 2022 Qualified engineers are available in your labor market <td< th=""><th>4.2.01 · Investment in Telecommunications</th><th>0.72</th><th>0.42</th><th>4 2021</th></td<> | 4.2.01 · Investment in Telecommunications | 0.72 | 0.42 | 4 2021 | |
| 46 & 56 market, % of mobile market 4.2.03 Mobile Telephone costs 22.1 15.7 49 2000 Monthly Blended Average Revenue per User 2.04 · Communications technology 7.10 7.67 47 2022 Communications technology 7.10 7.67 47 2022 Communications technology (voice and data) meets business requirements 39,004 36,109 18 2000 4.2.06 · Internet servers 39,004 36,109 18 2000 Number of internet users per 1000 people 42.07 · Broadband subscribers 499 381 15 2020 Number of subscriptions per 1000 inhabitants 42.09 · Digital/Technological skills are readily available 6.59 6.79 39 2022 20igital/Technological skills are readily available 6.47 6.35 31 2022 42.10 · Qualified engineers are available in your labor market 6.47 6.59 6.97 30 2022 Public and private sector ventures are supporting technological development 6.97 6.46 24 2022 Li Public-private partnerships | Percentage of GDP | | | | |
| 4.2.03 · Mobile Telephone costs 22.1 15.7 49 2020 Monthly Blended Average Revenue per User 7.10 7.67 47 2022 Communications technology 7.10 7.67 47 2022 Communications technology Voice and data) meets business requirements 39,804 36,109 18 2020 Publicly-trusted TLS/SSL certificates, Netcraft Secure Server Survey. 854 839 35 2021 4.2.06 · Internet users per 1000 people 854 839 35 2021 4.2.07 · Broadband subscribers 499 381 15 2020 Number of subscriptions per 1000 inhabitants 42.09 · Digital/Technological skills are readity available 57.7 93.5 45 2021 Average speed 57.7 93.5 45 2022 2021< | 4.2.02 · Mobile Broadband subscribers | 93.3 | 71.5 | 8 2020 | |
| Monthly Blended Average Revenue per User 4.2.04 Communications technology 7.10 7.67 47 2022 Communications technology (voice and data) meets business requirements 39,804 36,109 18 2000 2.2.05 Secure internet servers 39,804 36,109 18 2000 publicly-trusted TLS/SSL certificates, Netcraft Secure Server Survey. 4.2.05 854 839 35 2021 Number of internet users per 1000 people 4.2.07 Broadband subscribers 499 381 15 2020 Number of subscriptions per 1000 inhabitants 4.2.07 Broadband subscribers 499 381 15 2021 Average speed 4.2.07 Digital/Technological skills 6.59 6.79 39 2022 Digital/Technological skills are readily available 6.47 6.35 31 2022 Logital/Technological skills are readily available 6.18 6.08 30 2022 Digital/Technological development market 4.210 Public and private sector ventures are supporting technological development 4.24 2022 | 4G & 5G market, % of mobile market | | | | |
| 4.2.04 · Communications technology 7.10 7.67 47 2022 Communications technology (voice and data) meets business requirements 39,804 36,109 18 2020 4.2.05 · Secure internet servers 39,804 36,109 18 2020 4.2.06 · Internet users 854 839 35 2021 Number of internet users per 1000 people 42.07 Broadband subscribers 499 381 15 2020 Number of subscriptions per 1000 inhabitants 42.09 S181 15 2020 Average speed 57.7 93.5 45 2021 Average speed 6.59 6.79 39 2022 Qualified engineers are available 6.47 6.35 31 2022 Qualified engineers are available in your labor market 42.10 · Qualified engineers 6.47 6.35 31 2022 Public and private sector ventures are supporting technological development 6.97 6.46 24 2022 Public and private sector ventures are supported by the legal environment 42.13 · Funding for technological development 5.96 5.98 37 2020 <tr< td=""><td>4.2.03 · Mobile Telephone costs</td><td>22.1</td><td>15.7</td><td>49 ²⁰²⁰</td></tr<> | 4.2.03 · Mobile Telephone costs | 22.1 | 15.7 | 49 ²⁰²⁰ | |
| Communications technology (voice and data) meets business requirements 42.05 - Secure internet servers 39,804 36,109 18 2020 publicly-trusted TLS/SSL certificates, Netcraft Secure Server Survey. 8654 839 35 2021 Number of internet users per 1000 people 8654 839 35 2021 42.06 - Internet users per 1000 inhabitants 499 381 15 2020 Number of subscriptions per 1000 inhabitants 42.08 - Internet bandwidth speed 57.7 93.5 45 2021 Average speed | Monthly Blended Average Revenue per User | | | | |
| 4.2.05 · Secure internet servers 39,804 36,109 18 2020 publicly-trusted TLS/SSL certificates, Netcraft Secure Server Survey. 854 839 35 2021 Number of internet users 854 839 35 2021 Number of internet users per 1000 people 42.07 · Broadband subscribers 499 381 15 2020 Number of subscriptions per 1000 inhabitants 42.08 · Internet bandwidth speed 57.7 93.5 45 2021 Average speed 57.7 93.5 45 2021 42.09 · Digital/Technological skills are readily available 4.2.10 · Qualified engineers 6.47 6.35 31 2022 Qualified engineers are available in your labor market 6.18 6.08 30 2022 4.2.10 · Qualified engineers are supporting technological development 4.2.12 · Development & application of tech. 6.97 6.46 24 2022 Development and application of tech. 6.97 6.46 24 2022 Development and application of technological development 5.96 5.98 37 2022 Low of technological development 5.598 47.160 | 4.2.04 · Communications technology | 7.10 | 7.67 | 47 ²⁰²² | |
| publicly-trusted TLS/SSL certificates, Netcraft Secure Server Survey. 42.06 · Internet users 854 839 35 2021 Number of internet users per 1000 people 42.07 · Broadband subscribers 499 381 15 2020 Number of subscriptions per 1000 inhabitants 42.08 · Internet bandwidth speed 57.7 93.5 45 2021 Average speed 6.59 6.79 39 2022 Digital/Technological skills 6.59 6.79 39 2022 Digital/Technological skills are readily available 647 6.35 31 2022 42.10 · Qualified engineers 647 6.35 31 2022 Qualified engineers are available in your labor market 42.11 · Public-private partnerships 6.18 6.08 30 2022 Public and private sector ventures are supporting technological development 6.97 6.46 24 2022 Public and private sector ventures are supported by the legal environment 42.13 · Funding for technological development 5.96 5.98 37 2022 Usevelopment and application of tech. <td< td=""><td>Communications technology (voice and data) meets business requirements</td><td></td><td></td><td></td></td<> | Communications technology (voice and data) meets business requirements | | | | |
| 4.2.06 · Internet users 854 839 35 2021 Number of internet users per 1000 people 4.2.07 · Broadband subscribers 499 381 15 2020 Number of subscriptions per 1000 inhabitants 4.2.08 · Internet bandwidth speed 57.7 93.5 45 2021 Average speed | 4.2.05 · Secure internet servers | 39,804 | 36,109 | 18 ²⁰²⁰ | |
| Number of internet users per 1000 people 42.07 · Broadband subscribers 499 381 15 2020 Number of subscriptions per 1000 inhabitants 57.7 93.5 45 2021 Average speed 57.7 93.5 45 2021 Average speed 6.59 6.79 39 2022 Upital/Technological skills 6.59 6.79 39 2022 Qualified engineers 6.47 6.35 31 2022 Qualified engineers are available in your labor market 42.10 · Qualified engineers are available in your labor market 6.18 6.08 30 2022 Public and private sector ventures are supporting technological development 6.97 6.46 24 2022 Public and private sector ventures are supported by the legal environment 6.97 6.46 24 2022 A.21 · Development and application of technological development 5.96 5.98 37 2022 Funding for technological development 5.96 5.98 37 2022 Us\$ millions 21.49 18.12 | publicly-trusted TLS/SSL certificates, Netcraft Secure Server Survey. | | | | |
| 4.2.07 · Broadband subscribers 499 381 15 2020 Number of subscriptions per 1000 inhabitants 57.7 93.5 45 2021 Average speed 6.59 6.79 39 2022 Digital/Technological skills 6.59 6.79 39 2022 Qualified engineers 6.47 6.35 31 2022 Qualified engineers are available in your labor market 6.18 6.08 30 2022 Public and private sector ventures are supporting technological development 6.97 6.46 24 2022 Public and private sector ventures are supported by the legal environment 6.97 6.46 24 2022 Auding for technological development 5.96 5.98 37 2022 Public and private sector ventures are supported by the legal environment 4.2.13 · Funding for technological development 5.96 5.98 37 2022 4.2.14 · High-tech exports (\$) 5.96 5.98 37 2022 Us\$ millions 21.49 18.12 19 2020 4.2.16 · ICT service exports 4.7 9.7 45 20149 | 4.2.06 · Internet users | 854 | 839 | 35 ²⁰²¹ | |
| Number of subscriptions per 1000 inhabitants 4.2.08 · Internet bandwidth speed 57.7 93.5 45 2021 Average speed 6.59 6.79 39 2022 Digital/Technological skills are readily available 6.47 6.35 31 2022 Qualified engineers 6.47 6.35 31 2022 Qualified engineers are available in your labor market 6.18 6.08 30 2022 Public and private sector ventures are supporting technological development 6.18 6.08 30 2022 Public and private sector ventures are supporting technological development 6.18 6.08 30 2022 Action of technology are supported by the legal environment 6.97 6.46 24 2022 Development and application of technology are supported by the legal environment 5.96 5.98 37 2022 4.2.13 · Funding for technological development 5.96 5.98 37 2022 US\$ millions 1 4.2.15 · High-tech exports [\$] 21.49 18.12 19 2020 VS \$ | | | | | |
| 4.2.08 · Internet bandwidth speed 57.7 93.5 45 2021 Average speed 6.59 6.79 39 2022 Digital/Technological skills are readily available 6.47 6.35 31 2022 Qualified engineers are available in your labor market 6.47 6.35 31 2022 Qualified engineers are available in your labor market 6.18 6.08 30 2022 Public and private sector ventures are supporting technological development 6.97 6.46 24 2022 Development & application of technology are supported by the legal environment 6.97 6.46 24 2022 Funding for technological development 5.96 5.98 37 2022 4.2.14 · High-tech exports [\$] 5.598 47,160 34 2020 U\$\$ \$millions 21.49 18.12 19 2020 Percentage of manufactured exports 4.7 9.7 45 2018 4.2.16 · ICT service exports 4.7 9.7 45 2018 Percentage of service exports 4.7 9.7 45 2018 | 4.2.07 · Broadband subscribers | 499 | 381 | 15 ²⁰²⁰ | |
| Average speed 4.2.09 · Digital/Technological skills 6.59 6.79 39 2022 Digital/Technological skills are readily available 6.47 6.35 31 2022 Qualified engineers 6.47 6.35 31 2022 Qualified engineers are available in your labor market 6.18 6.08 30 2022 Public and private partnerships 6.18 6.08 30 2022 Public and private sector ventures are supporting technological development 6.97 6.46 24 2022 Development and application of technology are supported by the legal environment 6.97 6.46 24 2022 Levelopment and application of technology are supported by the legal environment 7 2022 2022 Funding for technological development 5.96 5.98 37 2022 VS millions 21.4 · High-tech exports (\$) 21.49 18.12 19 2020 VS millions 21.49 18.12 19 2020 2020 2020 2020 2020 2020 2020 | Number of subscriptions per 1000 inhabitants | | | | |
| 4.2.09 · Digital/Technological skills 6.59 6.79 39 2022 Digital/Technological skills are readily available 6.47 6.35 31 2022 Qualified engineers 6.47 6.35 31 2022 Qualified engineers are available in your labor market 6.18 6.08 30 2022 Qualified engineers are available in your labor market 6.18 6.08 30 2022 Public and private partnerships 6.18 6.08 30 2022 Public and private sector ventures are supporting technological development 6.97 6.46 24 2022 Development and application of technology are supported by the legal environment 6.97 6.46 24 2022 Levelopment and application of technology are supported by the legal environment 5.96 5.98 37 2022 Funding for technological development 5.96 5.98 37 2022 US\$ millions 21.49 18.12 19 2020 Percentage of manufactured exports 4.7 9.7 45 2018 Percentage of service exports 4.7 9.7 45 | 4.2.08 · Internet bandwidth speed | 57.7 | 93.5 | 45 ²⁰²¹ | |
| Digital/Technological skills are readily available4.2.10 · Qualified engineers Qualified engineers are available in your labor market4.2.11 · Public-private partnerships6.186.08302022Public and private sector ventures are supporting technological development6.186.08302022Public and private sector ventures are supporting technological development6.976.46242022Development and application of technology are supported by the legal environment6.976.46242022Levelopment and application of technological development5.965.98372022Funding for technological development5.965.98372022Vultich High-tech exports (\$)5.59847,160342020US\$ millions21.4918.12192020Percentage of manufactured exports4.79.7452018Percentage of service exports4.79.74520184.2.17 · Cyber security6.085.89312022 | 5 1 | | | | |
| 4.2.10 · Qualified engineers6.476.35312022Qualified engineers are available in your labor market6.186.08302022Public and private partnerships6.186.08302022Public and private sector ventures are supporting technological development6.976.46242022Development & application of tech.6.976.46242022Development and application of technology are supported by the legal environment5.965.98372022Funding for technological development5.965.98372022Funding for technological development5.59847,160342020US\$ millions18.12192020Percentage of manufactured exports4.79.7452018Percentage of service exports4.79.74520184.2.17 · Cyber security6.085.89312022 | 4.2.09 · Digital/Technological skills | 6.59 | 6.79 | 39 ²⁰²² | |
| Qualified engineers are available in your labor market 4.2.11 · Public-private partnerships 6.18 6.08 30 2022 Public and private sector ventures are supporting technological development 6.97 6.46 24 2022 Development & application of tech. 6.97 6.46 24 2022 Development and application of technology are supported by the legal environment 6.97 6.46 24 2022 Funding for technological development 5.96 5.98 37 2022 Funding for technological development 5.598 47,160 34 2020 US\$ millions | | | | | |
| 4.2.11 · Public-private partnerships 6.18 6.08 30 2022 Public and private sector ventures are supporting technological development 6.97 6.46 24 2022 Development & application of tech. 6.97 6.46 24 2022 Development and application of technology are supported by the legal environment 6.97 6.46 24 2022 Funding for technological development 5.96 5.98 37 2022 Funding for technological development is readily available 5,598 47,160 34 2020 US\$ millions 21.49 18.12 19 2020 Percentage of manufactured exports 4.7 9.7 45 2018 Percentage of service exports 4.2.17 · Cyber security 6.08 5.89 31 2022 | 4.2.10 · Qualified engineers | 6.47 | 6.35 | 31 ²⁰²² | |
| Public and private sector ventures are supporting technological development4.2.12 · Development & application of tech. Development and application of technology are supported by the legal environment6.976.462420224.2.13 · Funding for technological development Funding for technological development is readily available5.965.983720224.2.14 · High-tech exports (\$) US\$ millions5,59847,1603420204.2.15 · High-tech exports (%) Percentage of manufactured exports21.4918.121920204.2.16 · ICT service exports Percentage of service exports4.79.74520184.2.17 · Cyber security6.085.89312022 | Qualified engineers are available in your labor market | | | | |
| 4.2.12 · Development & application of tech. 6.97 6.46 24 2022 Development and application of technology are supported by the legal environment 5.96 5.98 37 2022 Funding for technological development 5.96 5.98 37 2022 Funding for technological development is readily available 5.598 47,160 34 2020 US\$ millions 21.49 18.12 19 2020 Percentage of manufactured exports 4.7 9.7 45 2018 Percentage of service exports 4.7 9.7 45 2018 4.2.17 · Cyber security 6.08 5.89 31 2022 | 4.2.11 · Public-private partnerships | 6.18 | 6.08 | 30 ²⁰²² | |
| Development and application of technology are supported by the legal environment 4.2.13 · Funding for technological development 5.96 5.98 37 ²⁰²² Funding for technological development is readily available | | | | | |
| 4.2.13 · Funding for technological development 5.96 5.98 37 2022 Funding for technological development is readily available | 4.2.12 · Development & application of tech. | 6.97 | 6.46 | 24 ²⁰²² | |
| Funding for technological development is readily available 4.2.14 · High-tech exports (\$) 5,598 47,160 34 ²⁰²⁰ US\$ millions | | | | | |
| 4.2.14 · High-tech exports (\$) 5,598 47,160 34 2020 US\$ millions | | 5.96 | 5.98 | 37 ²⁰²² | |
| US\$ millions 4.2.15 · High-tech exports (%) 21.49 18.12 19 2020 Percentage of manufactured exports 4.7 9.7 45 2018 Percentage of service exports 4.7 9.7 45 2018 Percentage of service exports 6.08 5.89 31 2022 | | | | | |
| 4.2.15 · High-tech exports (%) 21.49 18.12 19 2020 Percentage of manufactured exports 4.7 9.7 45 2018 Percentage of service exports 4.7 9.7 45 2018 Vercentage of service exports 6.08 5.89 31 2022 | | 5,598 | 47,160 | 34 ²⁰²⁰ | |
| Percentage of manufactured exports 4.2.16 · ICT service exports Percentage of service exports 4.2.17 · Cyber security 6.08 5.89 31 2022 | | | | | |
| 4.2.16 · ICT service exports 4.7 9.7 45 ²⁰¹⁸ Percentage of service exports 4.2.17 · Cyber security 6.08 5.89 31 ²⁰²² | | 21.49 | 18.12 | 19 ²⁰²⁰ | |
| Percentage of service exports 4.2.17 · Cyber security 6.08 5.89 31 ²⁰²² | 5 | | | | |
| 4.2.17 · Cyber security 6.08 5.89 31 ²⁰²² | 4.2.16 · ICT service exports | 4.7 | 9.7 | 45 ²⁰¹⁸ | |
| 4.2.17 Gyber Security 0.00 0.09 01 | Percentage of service exports | | | | |
| Cyber security is being adequately addressed by corporations | 4.2.17 · Cyber security | 6.08 | 5.89 | 31 ²⁰²² | |
| | Cyber security is being adequately addressed by corporations | | | | |

| 4.3 · Scientific Infrastructure | Value / | Average R | ank 'ear |
|---|---------|-----------|--------------------|
| 4.3.01 · Total expenditure on R&D (\$) | 24,749 | 31,953 | 10 ²⁰¹⁹ |
| US\$ millions | | | |
| 4.3.02 · Total expenditure on R&D (%) | 1.79 | 1.63 | 22 ²⁰¹⁹ |
| Percentage of GDP | | | |
| 4.3.03 · Total expenditure on R&D per capita (\$) | 975.7 | 647.1 | 19 ²⁰¹⁹ |
| US\$ per capita | | | |
| 4.3.04 · Business expenditure on R&D (\$) | 12,632 | 24,238 | 16 ²⁰¹⁹ |
| US\$ millions | | | |
| 4.3.05 · Business expenditure on R&D (%) | 0.91 | 1.11 | 26 ²⁰¹⁹ |
| Percentage of GDP | | | |
| 4.3.06 · Total R&D personnel | - | 233.3 | |
| Full-time work equivalent (FTE thousands) | | | |
| 4.3.07 · Total R&D personnel per capita | - | 5.37 | |
| Full-time work equivalent (FTE) per 1000 people | | | |
| 4.3.08 · Total R&D personnel in business enterprise | 77.7 | 183.3 | 18 ²⁰¹⁹ |
| Full-time work equivalent (FTE thousands) | | | |
| 4.3.09 · Total R&D personnel in business per capita | 3.06 | 3.31 | 28 ²⁰¹⁹ |
| Full-time work equivalent (FTE) per 1000 people | | | |
| 4.3.10 · Researchers in R&D per capita | - | 3.6 | |
| Full-time work equivalent (FTE) per 1000 people | | | |
| 4.3.11 · Graduates in Sciences | 18.63 | 24.75 | 52 ²⁰¹⁹ |
| % of graduates in ICT, Engineering, Math & Natural Sciences | | | |
| 4.3.12 · Scientific articles | 57,258 | 39,473 | 13 ²⁰¹⁹ |
| Scientific articles published by origin of author | | | |
| 4.3.13 · Nobel prizes | 8 | 9 | 10 ²⁰²¹ |
| Awarded in physics, chemistry, physiology or medicine and economics since 1950 | | | |
| 4.3.14 · Nobel prizes per capita | 0.31 | 0.19 | 15 ²⁰²¹ |
| Awarded in physics, chemistry, physiology or medicine and economics since 1950 per million people | | | |
| 4.3.15 · Patent applications | 11,907 | 52,962 | 20 2020 |
| Number of applications filed by applicant's origin | | | |
| 4.3.16 · Patent applications per capita | 46.34 | 80.01 | 25 ²⁰²⁰ |
| Number of applications filed by applicant's origin, per 100,000 inhabitants | | | |
| 4.3.17 · Patent grants | 5,768 | 25,007 | 21 ²⁰²⁰ |
| Number of patents granted by applicant's origin (average 2018-2020) | | | |
| 4.3.18 · Number of patents in force | 247.7 | 491.7 | 25 ²⁰²⁰ |
| by applicant's origin, per 100,000 inhabitants | | | |
| 4.3.19 · Medium- and high-tech value added | 28.48 | 38.63 | 45 ²⁰¹⁹ |
| Proportion of total manufacturing value added, expressed as a percentage | | | |
| 4.3.20 · Scientific research legislation | 6.69 | 5.97 | 24 2022 |
| Laws relating to scientific research do encourage innovation | | | |
| 4.3.21 · Intellectual property rights | 7.88 | 6.59 | 12 2022 |
| Intellectual property rights are adequately enforced | | | |
| 4.3.22 · Knowledge transfer | 5.52 | 5.52 | 29 ²⁰²² |
| Knowledge transfer is highly developed between companies and universities | | | |

| 4.4 · Health and Environment | Value A | Average F | Rank 'ear |
|---|---------|-----------|--------------------|
| 4.4.01 · Total health expenditure | 9.9 | 7.5 | 14 ²⁰¹⁹ |
| Percentage of GDP | | | |
| 4.4.02 · Total health expenditure per capita | 5,415 | 2,614 | 10 ²⁰¹⁹ |
| US\$ per capita | | | 2010 |
| 4.4.03 · Public expenditure on health (%) | 71.68 | 65.44 | 26 ²⁰¹⁹ |
| Percentage of total health expenditure | 0.00 | 5.07 | 25 2022 |
| 4.4.04 · Health infrastructure | 6.92 | 5.97 | 25 2022 |
| Health infrastructure meets the needs of society 4.4.05 · Universal health coverage index | 87 | 78 | 3 2019 |
| Coverage index for essential health services (0-100) | 07 | 70 | 3 |
| 4.4.06 · Life expectancy at birth | 83.2 | 78.4 | 6 2020 |
| Average estimate | 00.2 | 70.4 | 0 |
| 4.4.07 · Healthy life expectancy | 71.0 | 68.3 | 19 ²⁰²¹ |
| Average estimate | 11.0 | 00.0 | 10 |
| 4.4.08 · Infant mortality | 3.7 | 7.9 | 22 2020 |
| Under five mortality rate per 1000 live births | 0.1 | | |
| 4.4.09 · Medical assistance | | | 9 ²⁰²¹ |
| Number of inhabitants per physician and per nurse | | | |
| Medical assistance / Per nurse | 83.30 | 302.83 | 2021 |
| | | | |
| Medical assistance / Per physician | 263.25 | 533.91 | 2021 |
| | | | |
| 4.4.10 · Urban population | 86 | 77 | 2021 |
| Percentage of total population | | | |
| 4.4.11 · Human development index | 0.944 | 0.862 | 8 2019 |
| Combines economic - social - educational indicators/ Source: Human Development Report | | | |
| 4.4.12 · Energy intensity | 59 | 102 | 14 2018 |
| Total energy consumed for each 1000 US\$ of GDP in MTOE | | | |
| 4.4.13 · Safely treated waste water | 76.2 | 76.7 | 39 ²⁰²⁰ |
| Percentage of waste water | | | |
| 4.4.14 · Water use efficiency | 82.19 | 97.67 | 20 2019 |
| US\$ per cubic meter | | | |
| 4.4.15 · CO2 emissions | 376.0 | 420.2 | 51 ²⁰²⁰ |
| Metric tons of carbon dioxide from fuel combustion | | | |
| 4.4.16 · CO2 emissions intensity | 277.9 | 354.2 | 35 ²⁰²⁰ |
| CO2 emissions from fuel combustion in metric tons per one million US\$ of GDP | | | |
| 4.4.17 · Exposure to particle pollution | 6.75 | 20.45 | 7 ²⁰¹⁹ |
| Mean population exposure to PM2.5, Micrograms per cubic metre | | | |
| 4.4.18 · Renewable energies (%) | 7.3 | 16.8 | 47 ²⁰¹⁹ |
| Share of renewables in total energy requirements, % | | | 0000 |
| 4.4.19 · Forest area growth | 0.7 | 0.4 | 18 ²⁰²⁰ |
| Five year percentage change of hectares | | | . 2019 |
| 4.4.20 · Total biocapacity | 11.47 | 3.26 | 4 ²⁰¹⁸ |
| Global hectares per capita of biologically productive space | | | 52 ²⁰¹⁸ |
| 4.4.21 · Ecological footprint | 7.1 | 5.0 | 52 2010 |
| Global hectares per person | 4.00 | 4 70 | 5 ²⁰¹⁸ |
| 4.4.22 · Ecological balance (reserve/deficit) | 4.39 | -1.73 | 5 2010 |
| Total biocapacity minus total footprint in global hectares per capita | 0.07 | 4.00 | 17 ²⁰¹⁹ |
| 4.4.23 · Environment-related technologies | 0.67 | 1.60 | 17 |
| Development of environment-related technologies, % inventions worldwide 4.4.24 · Environmental agreements | 100.00 | 02.24 | 1 2015 |
| 5 | 100.00 | 83.34 | |
| Multilateral agreements on hazardous waste, proportion fulfilled 4.4.25 · Sustainable development | 6.53 | 6.21 | 23 2022 |
| Sustainable development is a priority in companies | 0.00 | 0.21 | 23 |
| 4.4.26 · Pollution problems | 6.83 | 5.71 | 12 2022 |
| Pollution problems do not seriously affect your economy | 0.03 | 5.71 | 14 |
| 4.4.27 · Environmental laws | 6.76 | 6.17 | 17 2022 |
| Environmental laws and compliance do not hinder the competitiveness of businesses | 0.70 | 0.17 | ., |
| 4.4.28 · Quality of life | 9.02 | 6.76 | 8 2022 |
| Quality of life is high | 0.02 | 0.10 | - |
| Guardy of the 13 mgm | | | |

| 4.5 · Education | Value A | verage R | ank 'ear |
|--|---------|----------|--------------------|
| 4.5.01 · Total public expenditure on education | 5.8 | 5.0 | 17 ²⁰²⁰ |
| Percentage of GDP | | | - 2020 |
| 4.5.02 · Total public expenditure on education per capita | 3,057 | 1,562 | 9 2020 |
| US\$ per capita | 0.000 | 0.044 | 18 ²⁰¹⁹ |
| 4.5.03 · Total public exp. on education per student | 9,699 | 6,944 | 18 2010 |
| Spending per enrolled pupil/student, all levels | 15.14 | 15.05 | 34 ²⁰¹⁹ |
| 4.5.04 · Pupil-teacher ratio (primary education) | 15.14 | 15.95 | 34 |
| Ratio of students to teaching staff 4.5.05 · Pupil-teacher ratio (secondary education) | 11.00 | 10 74 | 30 2018 |
| Ratio of students to teaching staff | 11.89 | 13.74 | 30 |
| | 95.9 | 92.7 | 27 2019 |
| 4.5.06 · Secondary school enrollment | 95.9 | 92.7 | 21 |
| Percentage of relevant age group receiving full-time education | E4 C | 44.0 | 15 ²⁰²⁰ |
| 4.5.07 · Higher education achievement | 54.6 | 44.2 | 15 |
| Percentage of population that has attained at least tertiary education for persons 25-34 | 54.4 | 20.7 | 7 2020 |
| 4.5.08 · Women with degrees | 54.4 | 39.7 | / |
| Share of women who have a degree in the population 25-65 | 00.07 | 4.04 | 2 2019 |
| 4.5.09 · Student mobility inbound | 20.07 | 4.01 | 2 2010 |
| Foreign tertiary-level students per 1000 inhabitants | 0.50 | 0.00 | 53 ²⁰¹⁹ |
| 4.5.10 · Student mobility outbound | 0.52 | 2.62 | 53 2010 |
| National tertiary-level students studying abroad per 1000 inhabitants 4.5.11 · Educational assessment - PISA | 400 | 474 | 20 2018 |
| | 499 | 471 | 20 2010 |
| PISA survey of 15-year olds Educational assessment - PISA / Mathematics | 491 | 472 | 2018 |
| Educational assessment - PISA / Reading | 503 | 468 | 2018 |
| Educational assessment - PISA / Sciences | 503 | 472 | 2018 |
| 4.5.12 · Students who are not low achievers - PISA | 69.5 | 58.5 | 25 ²⁰¹⁸ |
| % of students who are not low achievers in maths, sciences and reading | | | |
| 4.5.13 · English proficiency - TOEFL | 96 | 92 | 13 ²⁰²⁰ |
| TOEFL scores | | | |
| 4.5.14 · Primary and secondary education | 7.60 | 6.10 | 15 ²⁰²² |
| Primary and secondary education meets the needs of a competitive economy | | | |
| 4.5.15 · University education | 7.58 | 6.40 | 15 ²⁰²² |
| University education meets the needs of a competitive economy | | | |
| 4.5.16 · Management education | 7.06 | 6.34 | 17 ²⁰²² |
| Management education meets the needs of the business community | | | |
| 4.5.17 · University education index | 37.37 | 14.07 | 7 2021 |
| Country score calculated from Times Higher Education university ranking | | | |
| 4.5.18 · Illiteracy | 1.0 | 2.4 | 1 2020 |
| Adult (over 15 years) illiteracy rate as a percentage of population | | | |
| 4.5.19 · Language skills | 6.24 | 6.41 | 36 2022 |
| Language skills are meeting the needs of enterprises | | | |

About the International Institute for Management Development (IMD)

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 and Singapore, IMD has been ranked for more than 15 consecutive years in the top 5 of the FT's Executive Education Global Ranking and #1 in the world for open enrolment programs for nine consecutive years.

This consistency at the forefront of its industry is grounded in IMD's unique approach to creating "Real Learning. Real Impact". Led by an expert and diverse faculty, IMD strives to be the trusted learning partner of choice for ambitious individuals and organizations worldwide. *Challenging what is and inspiring what could be*.

www.imd.org

