



IMD World Competitiveness Yearbook 2022

COUNTRY
PROFILE

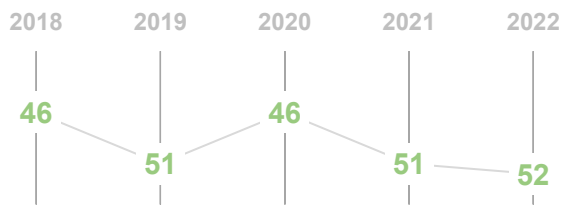
TURKEY



Turkey

Competitiveness Trends – Overall

OVERALL PERFORMANCE (63 countries)



CHALLENGES IN 2022

- Rising inflation and inadequate monetary policy.
- High external financing need.
- Russia-Ukraine war and supply disruptions.
- Political uncertainty.
- Uncertainty in legal framework.

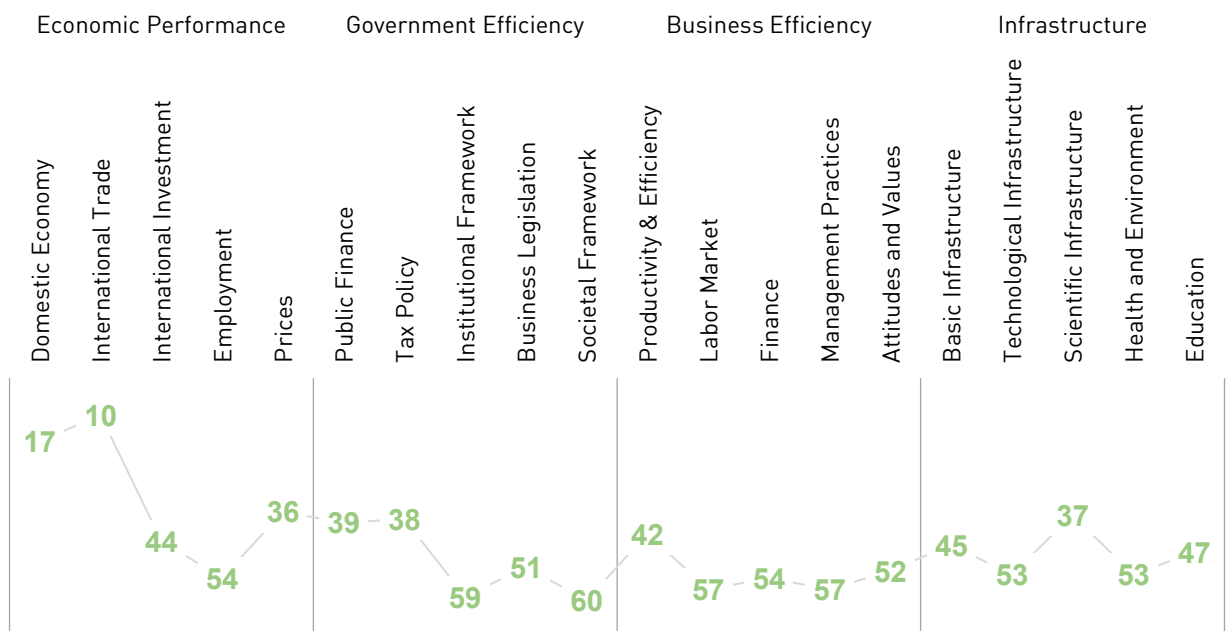
BASIC FACTS

Rank

| Indicator | Value | Year | Rank |
|--|--------|------|------|
| Capital | Ankara | | |
| Land area (square km '000) | 785 | 2021 | |
| Exchange Rate (per \$) | 8.867 | 2021 | |
| Population - market size (millions) | 84.68 | 2021 | 09 |
| Gross Domestic Product (GDP) (US\$ billions) | 813.0 | 2021 | 18 |
| GDP (PPP) per capita (US\$) | 34,755 | 2021 | 40 |
| Real GDP growth (%) | 11.0 | 2021 | 04 |
| Consumer price inflation (%) | 19.60 | 2021 | 61 |
| Unemployment rate (%) | 12.00 | 2021 | 55 |
| Labor force (millions) | 32.72 | 2021 | 12 |
| Current account balance (% of GDP) | -1.83 | 2021 | 45 |
| Direct investment stocks inward (\$bn) | 211.6 | 2020 | 30 |
| Direct investment flows inward (% of GDP) | 1.09 | 2020 | 40 |

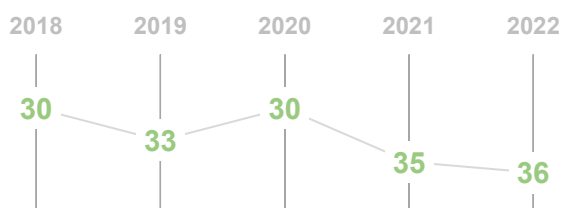
PROVIDED BY: TUSIAD, Turkish Industry and Business Association, Economic Research Department

COMPETITIVENESS LANDSCAPE

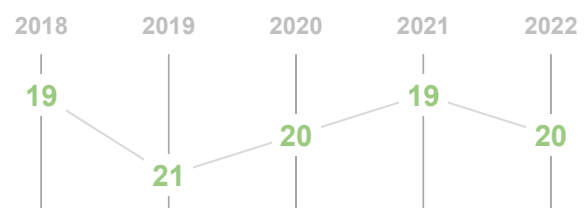


PEER GROUPS RANKINGS

EUROPE - MIDDLE EAST - AFRICA (40 countries)



POPULATIONS > 20 MILLION (27 countries)



Turkey

Competitiveness Evolution & Attractiveness Indicators

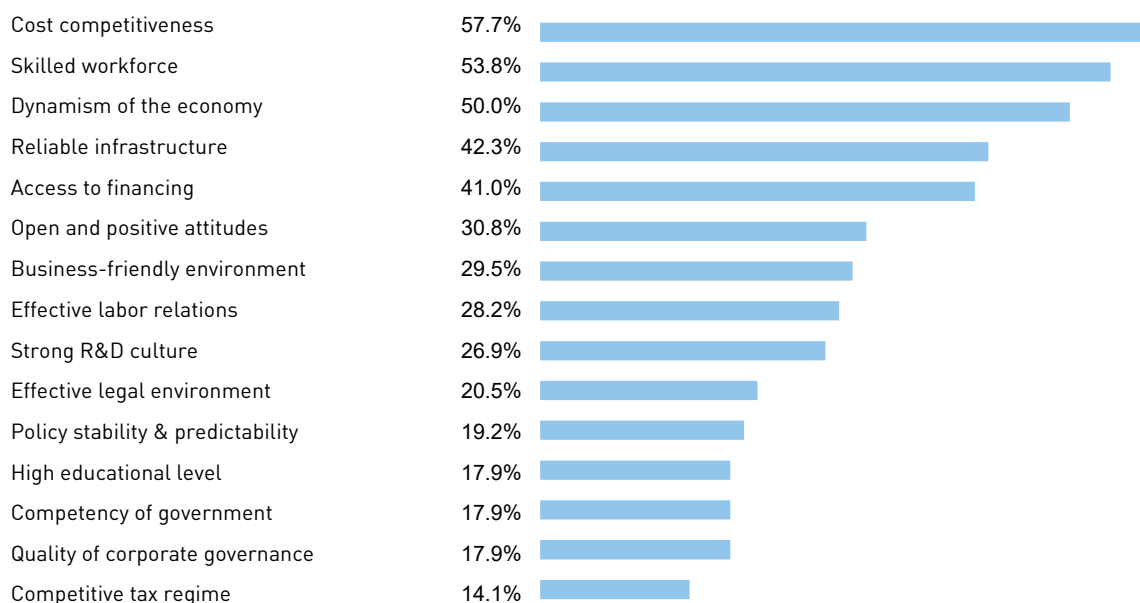
COMPETITIVENESS EVOLUTION

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 |
|--|-------------|-------------|--|-------------|-------------|
| 1.1.15 Real GDP growth per capita | 1.20 | 9.59 | 1.5.01 Consumer price inflation | 12.28 | 19.60 |
| 1.1.14 Real GDP growth | 1.8 | 11.0 | 1.2.25 Tourism receipts | 3.92 | 1.91 |
| 2.3.11 Transparency | 1.15 | 3.01 | 3.4.13 Entrepreneurial fear of failure | 28.10 | 39.84 |
| 4.1.07 Population - growth | 0.55 | 1.27 | 2.4.07 Government subsidies | 1.68 | 2.25 |
| 2.3.02 Cost of capital | 1.79 | 3.72 | 4.4.26 Pollution problems | 5.91 | 3.95 |
| 4.4.13 Safely treated waste water | 35.0 | 63.3 | 3.2.19 Finance skills | 6.43 | 4.63 |
| 2.1.07 Public finances | 2.09 | 3.57 | 3.2.18 Skilled labor | 6.13 | 4.48 |
| 1.2.12 Exports of commercial services (\$bn) | 34.34 | 56.47 | 3.1.07 Workforce productivity | 7.02 | 5.54 |
| 1.2.02 Current account balance | -5.10 | -1.83 | 4.2.10 Qualified engineers | 7.28 | 5.77 |
| 3.5.02 Image abroad or branding | 2.85 | 4.38 | 3.4.04 Credibility of managers | 6.68 | 5.34 |
| 2.1.09 Pension funding | 2.68 | 4.10 | 3.2.24 Competent senior managers | 5.66 | 4.53 |
| 2.3.09 Legal and regulatory framework | 2.38 | 3.51 | 3.5.04 Flexibility and adaptability | 7.45 | 5.97 |
| 2.5.01 Justice | 2.21 | 3.23 | 4.1.14 Distribution infrastructure | 7.49 | 6.05 |
| 1.2.13 Exports of commercial services (%) | 4.77 | 6.95 | 4.4.27 Environmental laws | 6.21 | 5.09 |
| 2.3.10 Adaptability of government policy | 2.51 | 3.65 | 1.2.18 Export concentration by product | 42.6 | 50.0 |

KEY ATTRACTIVENESS INDICATORS

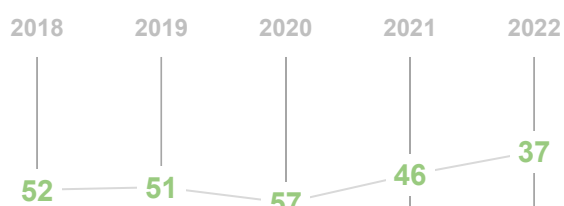
From a list of 15 indicators, respondents of the Executive Opinion Survey were asked to select 5 that they perceived as the key attractiveness factors of their economy. The chart shows the percentage of responses per indicator from the highest number of responses to the lowest.



Turkey

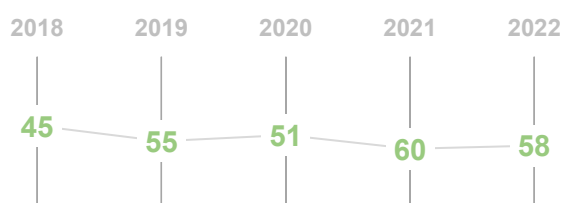
Competitiveness Trends – Factor Breakdown

ECONOMIC PERFORMANCE



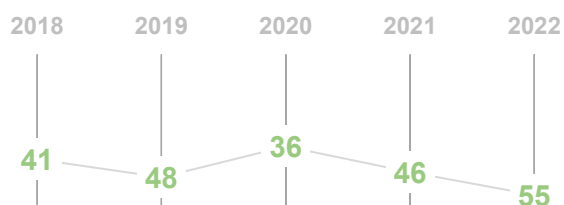
| SUB-FACTOR RANKINGS : | 2021 | 2022 |
|--------------------------|------|------|
| Domestic Economy | 17 | 17 |
| International Trade | 36 | 10 |
| International Investment | 43 | 44 |
| Employment | 60 | 54 |
| Prices | 30 | 36 |

GOVERNMENT EFFICIENCY



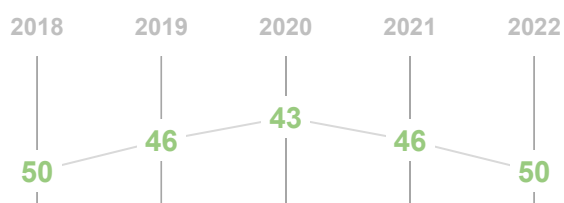
| SUB-FACTOR RANKINGS : | 2021 | 2022 |
|-------------------------|------|------|
| Public Finance | 46 | 39 |
| Tax Policy | 39 | 38 |
| Institutional Framework | 62 | 59 |
| Business Legislation | 48 | 51 |
| Societal Framework | 61 | 60 |

BUSINESS EFFICIENCY



| SUB-FACTOR RANKINGS : | 2021 | 2022 |
|---------------------------|------|------|
| Productivity & Efficiency | 26 | 42 |
| Labor Market | 55 | 57 |
| Finance | 51 | 54 |
| Management Practices | 46 | 57 |
| Attitudes and Values | 47 | 52 |

INFRASTRUCTURE



| SUB-FACTOR RANKINGS : | 2021 | 2022 |
|------------------------------|------|------|
| Basic Infrastructure | 42 | 45 |
| Technological Infrastructure | 53 | 53 |
| Scientific Infrastructure | 39 | 37 |
| Health and Environment | 48 | 53 |
| Education | 50 | 47 |

Turkey

Balance Sheet – Factor Breakdown

ECONOMIC PERFORMANCE

| STRENGTHS | | Rank | WEAKNESSES | | Rank |
|-----------|---------------------------------------|------|------------|--|------|
| 1.2.17 | Export concentration by partner | 01 | 1.5.01 | Consumer price inflation | 61 |
| 1.1.14 | Real GDP growth | 04 | 1.4.10 | Youth exclusion | 59 |
| 1.1.15 | Real GDP growth per capita | 06 | 1.4.02 | Employment (%) | 59 |
| 1.5.02 | Cost-of-living index | 06 | 1.4.07 | Unemployment rate | 55 |
| 1.1.09 | Gross fixed capital formation (%) | 10 | 1.5.05 | Food costs | 54 |
| 1.5.06 | Gasoline prices | 18 | 1.3.04 | Direct investment stocks abroad (% of GDP) | 53 |
| 1.5.04 | Office rent | 20 | 1.1.20 | GDP per capita | 51 |
| 1.2.25 | Tourism receipts | 20 | 1.4.08 | Long-term unemployment | 51 |
| 1.2.12 | Exports of commercial services (\$bn) | 25 | 1.4.09 | Youth unemployment | 51 |
| 1.2.18 | Export concentration by product | 27 | 1.3.08 | Direct investment stocks inward (% of GDP) | 51 |

GOVERNMENT EFFICIENCY

| STRENGTHS | | Rank | WEAKNESSES | | Rank |
|-----------|---------------------------------------|------|------------|--------------------------------|------|
| 2.1.04 | Total general government debt (%) | 14 | 2.3.08 | Exchange rate stability | 61 |
| 2.2.02 | Collected personal income tax | 23 | 2.1.08 | Tax evasion | 61 |
| 2.4.14 | Start-up days | 23 | 2.3.05 | Central bank policy | 60 |
| 2.2.01 | Collected total tax revenues | 25 | 2.3.04 | Country credit rating | 60 |
| 2.1.02 | Government budget surplus/deficit (%) | 26 | 2.5.11 | Equal opportunity | 59 |
| 2.3.03 | Interest rate spread | 27 | 2.5.15 | Disposable Income | 58 |
| 2.2.07 | Corporate tax rate on profit | 29 | 2.3.02 | Cost of capital | 58 |
| - | - | - | 2.3.14 | Rule of law | 57 |
| - | - | - | 2.5.16 | Freedom of the Press | 57 |
| - | - | - | 2.3.09 | Legal and regulatory framework | 57 |

BUSINESS EFFICIENCY

| STRENGTHS | | Rank | WEAKNESSES | | Rank |
|-----------|--|------|------------|---|------|
| 3.2.03 | Remuneration in services professions | 05 | 3.2.10 | Employee training | 63 |
| 3.2.01 | Compensation levels | 14 | 3.4.06 | Auditing and accounting practices | 62 |
| 3.4.14 | Total early-stage Entrepreneurial Activity | 14 | 3.3.19 | Corporate debt | 62 |
| 3.4.13 | Entrepreneurial fear of failure | 16 | 3.3.05 | Access to financial services - gender ratio | 60 |
| 3.1.03 | Labor productivity (PPP) | 22 | 3.2.20 | Attracting and retaining talents | 59 |
| 3.2.04 | Remuneration of management | 22 | 3.5.01 | Attitudes toward globalization | 59 |
| 3.1.01 | Overall productivity (PPP) | 26 | 3.2.12 | Labor force (%) | 59 |
| - | - | - | 3.3.14 | Shareholders' rights | 59 |
| - | - | - | 3.2.19 | Finance skills | 58 |
| - | - | - | 3.5.02 | Image abroad or branding | 57 |

INFRASTRUCTURE

| STRENGTHS | | Rank | WEAKNESSES | | Rank |
|-----------|--|------|------------|---------------------------------|------|
| 4.2.02 | Mobile Broadband subscribers | 04 | 4.2.08 | Internet bandwidth speed | 60 |
| 4.4.19 | Forest area growth | 08 | 4.3.21 | Intellectual property rights | 59 |
| 4.1.07 | Population - growth | 10 | 4.2.15 | High-tech exports (%) | 59 |
| 4.2.03 | Mobile Telephone costs | 12 | 4.4.28 | Quality of life | 58 |
| 4.1.09 | Dependency ratio | 18 | 4.5.15 | University education | 58 |
| 4.5.01 | Total public expenditure on education | 24 | 4.4.24 | Environmental agreements | 57 |
| 4.4.18 | Renewable energies (%) | 27 | 4.5.16 | Management education | 57 |
| 4.4.05 | Universal health coverage index | 30 | 4.2.16 | ICT service exports | 57 |
| 4.1.20 | Electricity costs for industrial clients | 30 | 4.5.14 | Primary and secondary education | 56 |
| 4.5.17 | University education index | 34 | 4.5.19 | Language skills | 56 |

TURKEY

Extended Country Profile

1 - Economic Performance

1.1 - Domestic Economy

| | Value | Average | Rank | Year |
|---|---------|------------|------|------|
| 1.1.00 - Exchange Rate National currency per US\$ (average) | 8.867 | 21,532.090 | | 2021 |
| 1.1.01 - Gross Domestic Product (GDP) US\$ billions | 813.0 | 1,394.4 | 18 | 2021 |
| 1.1.02 - GDP (PPP) Estimates ; US\$ billions at purchasing power parity | 2,943.1 | 1,981.9 | 10 | 2021 |
| 1.1.03 - World GDP contribution Percentage share of world GDP in market prices | 0.84 | 1.44 | 19 | 2021 |
| 1.1.04 - Household consumption expenditure (\$bn) US\$ billions | 447.7 | 735.2 | 16 | 2021 |
| 1.1.05 - Household consumption expenditure (%) Percentage of GDP | 55.1 | 53.4 | 28 | 2021 |
| 1.1.06 - Government consumption expenditure (\$bn) US\$ billions | 106.3 | 232.9 | 23 | 2021 |
| 1.1.07 - Government consumption expenditure (%) Percentage of GDP | 13.1 | 18.3 | 51 | 2021 |
| 1.1.08 - Gross fixed capital formation (\$bn) US\$ billions | 227.4 | 351.9 | 16 | 2021 |
| 1.1.09 - Gross fixed capital formation (%) Percentage of GDP | 28.0 | 22.7 | 10 | 2021 |
| 1.1.10 - Gross domestic savings (\$bn) US\$ billions | 259.0 | 379.1 | 21 | 2021 |
| 1.1.11 - Gross domestic savings (%) Percentage of GDP | 31.9 | 28.3 | 20 | 2021 |
| 1.1.12 - Economic sectors Breakdown of the economic sectors, percentage of GDP | | | | 2021 |
| Economic sectors / Agriculture | 9.2 | 3.7 | | 2021 |
| Economic sectors / Industry | 34.6 | 29.1 | | 2021 |
| Economic sectors / Services | 56.3 | 67.0 | | 2021 |
| 1.1.13 - Economic complexity index Measures knowledge intensity, by considering exports | 0.65 | 0.86 | 38 | 2019 |
| 1.1.14 - Real GDP growth Percentage change, based on national currency in constant prices | 11.0 | 5.6 | 4 | 2021 |
| 1.1.15 - Real GDP growth per capita Percentage change, based on national currency in constant prices | 9.59 | 5.35 | 6 | 2021 |
| 1.1.16 - Household consumption expenditure - real growth Percentage change, based on constant prices | 15.10 | 4.78 | 2 | 2021 |
| 1.1.17 - Government consumption expenditure - real growth Percentage change, based on constant prices | 2.08 | 4.01 | 46 | 2021 |
| 1.1.18 - Gross fixed capital formation - real growth Percentage change, based on constant prices | 6.37 | 6.32 | 31 | 2021 |
| 1.1.19 - Resilience of the economy Resilience of the economy to economic cycles is strong | 4.79 | 5.88 | 48 | 2022 |
| 1.1.20 - GDP per capita US\$ per capita | 9,601 | 34,279 | 51 | 2021 |
| 1.1.21 - GDP (PPP) per capita Estimates; US\$ per capita at purchasing power parity | 34,755 | 44,580 | 40 | 2021 |
| 1.1.22 - Forecast: Real GDP growth Percentage change, based on national currency in constant prices | 3.0 | 3.7 | 41 | 2022 |
| 1.1.23 - Forecast: Inflation Percentage change | 50.0 | 38.4 | 61 | 2022 |
| 1.1.24 - Forecast: Unemployment Percentage of total labor force | 14.0 | 6.3 | 56 | 2022 |
| 1.1.25 - Forecast: Current account balance Percentage of GDP | -4.4 | 1.7 | 55 | 2022 |

1.2 · International Trade

Value Average Rank Year

| | | | | |
|--|--------|--------|----|------|
| 1.2.01 · Current account balance (\$bn) US\$ billions (minus sign = deficit) | -14.9 | 10.4 | 55 | 2021 |
| 1.2.02 · Current account balance Percentage of GDP | -1.83 | 1.64 | 45 | 2021 |
| 1.2.03 · Balance of trade (\$bn) US\$ billions (minus sign = deficit) | -46.1 | -2.5 | 58 | 2021 |
| 1.2.04 · Balance of trade (%) Percentage of GDP | -5.67 | 0.27 | 45 | 2021 |
| 1.2.05 · Balance of commercial services (\$bn) US\$ billions (minus sign = deficit) | 25.87 | 8.39 | 9 | 2021 |
| 1.2.06 · Balance of commercial services (%) Percentage of GDP | 3.18 | 1.84 | 20 | 2021 |
| 1.2.07 · World exports contribution Percentage share of world exports (goods and commercial services) | 1.00 | 1.45 | 26 | 2021 |
| 1.2.08 · Exports of goods (\$bn) US\$ billions | 225.29 | 321.20 | 28 | 2021 |
| 1.2.09 · Exports of goods (%) Percentage of GDP | 27.71 | 41.98 | 40 | 2021 |
| 1.2.10 · Exports of goods per capita US\$ per capita | 2,660 | 15,049 | 52 | 2021 |
| 1.2.11 · Exports of goods - growth Percentage change, based on US\$ values | 32.81 | 27.30 | 14 | 2021 |
| 1.2.12 · Exports of commercial services (\$bn) US\$ billions | 56.47 | 88.34 | 25 | 2021 |
| 1.2.13 · Exports of commercial services (%) Percentage of GDP | 6.95 | 15.10 | 39 | 2021 |
| 1.2.14 · Exports of commercial services - growth Percentage change, based on US\$ values | 61.05 | 17.14 | 2 | 2021 |
| 1.2.15 · Exports of goods & commercial services US\$ billions | 281.76 | 408.43 | 26 | 2021 |
| 1.2.16 · Exports breakdown by economic sector Percentage of total exports | | | | 2020 |
| Exports breakdown by economic sector / Agriculture | 10.4 | 11.3 | | 2020 |
| Exports breakdown by economic sector / Industry | 72.5 | 64.4 | | 2020 |
| Exports breakdown by economic sector / Services | 17.1 | 24.3 | | 2020 |
| 1.2.17 · Export concentration by partner Exports to top 5 countries, percentage of total exports | 32.2 | 55.0 | 1 | 2020 |
| 1.2.18 · Export concentration by product Top 5 products, percentage of total exports | 50.0 | 57.6 | 27 | 2020 |
| 1.2.19 · Imports of goods & commercial services (\$bn) US\$ billions | 302.0 | 402.5 | 41 | 2021 |
| 1.2.20 · Imports of goods & commercial services (%) Percentage of GDP | 37.1 | 54.7 | 26 | 2021 |
| 1.2.21 · Imports of goods & commerc. services growth Percentage change, based on US\$ values | 24.57 | 24.33 | 31 | 2021 |
| 1.2.22 · Imports breakdown by economic sector Percentage of total imports | | | | 2020 |
| Imports breakdown by economic sector / Agriculture | 8.1 | 9.0 | | 2020 |
| Imports breakdown by economic sector / Industry | 82.4 | 67.7 | | 2020 |
| Imports breakdown by economic sector / Services | 9.5 | 23.3 | | 2020 |
| 1.2.23 · Trade to GDP ratio (Exports + Imports) / GDP | 62.10 | 102.61 | 40 | 2020 |
| 1.2.24 · Terms of trade index Unit value of exports over unit value of imports | 99.6 | 99.4 | 34 | 2020 |
| 1.2.25 · Tourism receipts International tourism receipts as a percentage of GDP | 1.91 | 1.54 | 20 | 2020 |

1.3 · International Investment

Value Average Rank Year

| | | | | |
|---|--------|--------|----|------|
| 1.3.01 · Direct investment flows abroad (\$bn) US\$ billions | 3.24 | 14.96 | 31 | 2020 |
| 1.3.02 · Direct investment flows abroad (% of GDP) Percentage of GDP | 0.45 | 4.62 | 40 | 2020 |
| 1.3.03 · Direct investment stocks abroad (\$bn) US\$ billions | 52.5 | 612.1 | 41 | 2020 |
| 1.3.04 · Direct investment stocks abroad (% of GDP) Percentage of GDP | 7.29 | 109.57 | 53 | 2020 |
| 1.3.05 · Direct investment flows inward (\$bn) US\$ billions | 7.83 | 16.61 | 25 | 2020 |
| 1.3.06 · Direct investment flows inward (% of GDP) Percentage of GDP | 1.09 | 4.86 | 40 | 2020 |
| 1.3.07 · Direct investment stocks inward (\$bn) US\$ billions | 211.6 | 613.9 | 30 | 2020 |
| 1.3.08 · Direct investment stocks inward (% of GDP) Percentage of GDP | 29.38 | 122.21 | 51 | 2020 |
| 1.3.09 · Balance of direct investment flows (\$bn) US\$ billions (flows abroad minus flows inward) | -4.59 | -1.64 | 45 | 2020 |
| 1.3.10 · Balance of direct investment flows (%) Percentage of GDP (flows abroad minus flows inward) | -0.64 | -0.24 | 29 | 2020 |
| 1.3.11 · Net position in direct investment stocks (\$bn) US\$ billions (stocks abroad minus stocks inward) | -159.1 | -1.8 | 55 | 2020 |
| 1.3.12 · Net position in direct investment stocks (%) Percentage of GDP (stocks abroad minus stocks inward) | -22.09 | -12.64 | 38 | 2020 |
| 1.3.13 · Relocation threats of business Relocation of business is not a threat to the future of your economy | 5.44 | 5.36 | 27 | 2022 |
| 1.3.14 · Portfolio investment assets US\$ billions | 2.89 | 38.51 | 40 | 2020 |
| 1.3.15 · Portfolio investment liabilities US\$ billions | -6.66 | 34.92 | 54 | 2020 |

1.4 · Employment

Value Average Rank Year

| | | | | |
|--|-------|-------|----|------|
| 1.4.01 · Employment Total employment in millions | 28.80 | 38.16 | 12 | 2021 |
| 1.4.02 · Employment (%) Percentage of population | 34.01 | 47.14 | 59 | 2021 |
| 1.4.03 · Employment - growth Estimates: percentage change | 7.40 | 1.54 | 4 | 2021 |
| 1.4.04 · Employment - long-term growth Estimates: five year percentage change | -4.22 | -0.41 | 50 | 2021 |
| 1.4.05 · Employment by sector Percentage of total employment | | | | 2021 |
| Employment by sector / Agriculture | 17.2 | 7.7 | | 2021 |
| Employment by sector / Industry | 27.5 | 23.5 | | 2021 |
| Employment by sector / Services | 55.3 | 68.8 | | 2021 |
| 1.4.06 · Employment in the public sector Percentage of total employment | 16.63 | 17.83 | 28 | 2020 |
| 1.4.07 · Unemployment rate Percentage of labor force | 12.00 | 8.00 | 55 | 2021 |
| 1.4.08 · Long-term unemployment Percentage of labor force | 3.73 | 2.81 | 51 | 2021 |
| 1.4.09 · Youth unemployment Percentage of youth labor force (under the age of 25) | 22.60 | 17.13 | 51 | 2021 |
| 1.4.10 · Youth exclusion Share of youth population (15-24) not in education, employment or training | 28.3 | 14.6 | 59 | 2020 |

1.5 · Prices

Value Average Rank Year

| | | | | |
|---|-------|-------|----|------|
| 1.5.01 · Consumer price inflation | 19.60 | 29.25 | 61 | 2021 |
| Average annual rate | | | | |
| 1.5.02 · Cost-of-living index | 57.40 | 78.37 | 6 | 2021 |
| Index of a basket of goods & services in the main city, including housing (New York City = 100) | | | | |
| 1.5.03 · Apartment rent | 699 | 1,530 | 8 | 2018 |
| 3-room apartment monthly rent in major cities, US\$ | | | | |
| 1.5.04 · Office rent | 360 | 656 | 20 | 2021 |
| Total occupation cost in the main city (US\$/Sq.M. per year) | | | | |
| 1.5.05 · Food costs | 27.46 | 17.58 | 54 | 2021 |
| Percentage of household final consumption expenditures | | | | |
| 1.5.06 · Gasoline prices | 0.99 | 1.26 | 18 | 2021 |
| Premium unleaded gasoline (95 Ron) US\$ per litre | | | | |

TURKEY

Extended Country Profile

2 · Government Efficiency

2.1 · Public Finance

| | Value | Average | Rank | Year |
|--|--------|----------|------|------|
| 2.1.01 · Government budget surplus/deficit (\$bn) US\$ billions | -28.29 | -91.93 | 47 | 2021 |
| 2.1.02 · Government budget surplus/deficit (%) Percentage of GDP | -3.48 | -4.00 | 26 | 2021 |
| 2.1.03 · Total general government debt (\$bn) US\$ billions | 336.00 | 1,436.31 | 39 | 2021 |
| 2.1.04 · Total general government debt (%) Percentage of GDP | 41.33 | 71.59 | 14 | 2021 |
| 2.1.05 · Total general government debt-real growth Percentage change, based on national currency in constant prices | 24.90 | 8.58 | 60 | 2021 |
| 2.1.06 · Interest payment (%) Percentage of current revenue | 12.85 | 5.98 | 52 | 2021 |
| 2.1.07 · Public finances Public finances are being efficiently managed | 3.57 | 4.92 | 51 | 2022 |
| 2.1.08 · Tax evasion Tax evasion is not a threat to your economy | 2.43 | 5.05 | 61 | 2022 |
| 2.1.09 · Pension funding Pension funding is adequately addressed for the future | 4.10 | 4.77 | 44 | 2022 |
| 2.1.10 · General government expenditure Percentage of GDP | 22.2 | 38.2 | 9 | 2021 |

2.2 · Tax Policy

| | Value | Average | Rank | Year |
|--|-------|---------|------|------|
| 2.2.01 · Collected total tax revenues Percentage of GDP | 23.86 | 27.09 | 25 | 2020 |
| 2.2.02 · Collected personal income tax On profits, income and capital gains, as a percentage of GDP | 3.15 | 6.00 | 23 | 2020 |
| 2.2.03 · Collected corporate taxes On profits, income and capital gains, as a percentage of GDP | 2.08 | 2.70 | 15 | 2020 |
| 2.2.04 · Collected indirect tax revenues Taxes on goods and services as a percentage of GDP | 10.25 | 9.41 | 33 | 2020 |
| 2.2.05 · Collected capital and property taxes Percentage of GDP | 1.06 | 1.47 | 30 | 2020 |
| 2.2.06 · Collected social security contribution Compulsory contribution of employees and employers as a percentage of GDP | 7.08 | 7.28 | 32 | 2020 |
| 2.2.07 · Corporate tax rate on profit Maximum tax rate, calculated on profit before tax | 22.00 | 22.34 | 29 | 2021 |
| 2.2.08 · Consumption tax rate Standard rate of VAT/GST | 18.00 | 16.37 | 30 | 2021 |
| 2.2.09 · Employer social security tax rate % | 22.5 | 16.0 | 48 | 2021 |
| 2.2.10 · Employee social security tax rate % | 15.0 | 10.4 | 50 | 2021 |
| 2.2.11 · Real personal taxes Real personal taxes do not discourage people from working or seeking advancement | 3.92 | 5.12 | 49 | 2022 |

2.3 · Institutional Framework

Value Average Rank Year

| | | | | |
|---|-------|--------|----|------|
| 2.3.01 · Real short-term interest rate Real discount / bank rate | -3.22 | -3.07 | 14 | 2021 |
| 2.3.02 · Cost of capital Cost of capital encourages business development | 3.72 | 5.63 | 58 | 2022 |
| 2.3.03 · Interest rate spread Lending rate minus deposit rate | 2.62 | 3.49 | 27 | 2021 |
| 2.3.04 · Country credit rating Index (0-60) of three country credit ratings: Fitch, Moody's and S&P | 19.0 | 43.0 | 60 | 2021 |
| 2.3.05 · Central bank policy Central bank policy has a positive impact on the economy | 2.63 | 6.31 | 60 | 2022 |
| 2.3.06 · Foreign currency reserves US\$ billions | 93.20 | 216.77 | 26 | 2020 |
| 2.3.07 · Foreign currency reserves per capita US\$ per capita | 1,115 | 9,199 | 54 | 2020 |
| 2.3.08 · Exchange rate stability Parity change from national currency to SDR, 2021 / 2019 | 0.428 | 0.072 | 61 | 2020 |
| 2.3.09 · Legal and regulatory framework The legal and regulatory framework encourages the competitiveness of enterprises | 3.51 | 5.37 | 57 | 2022 |
| 2.3.10 · Adaptability of government policy Adaptability of government policy to changes in the economy is high | 3.65 | 4.83 | 49 | 2022 |
| 2.3.11 · Transparency Transparency of government policy is satisfactory | 3.01 | 4.87 | 55 | 2022 |
| 2.3.12 · Bureaucracy Bureaucracy does not hinder business activity | 3.44 | 3.72 | 39 | 2022 |
| 2.3.13 · Bribery and corruption Bribery and corruption do not exist | 3.19 | 4.77 | 44 | 2022 |
| 2.3.14 · Rule of law Rule of Law Index | 40.38 | 72.47 | 57 | 2020 |
| 2.3.15 · Sustainable Development Goals Country performance on the 17 SDGs | 70.4 | 75.1 | 47 | 2021 |
| 2.3.16 · Democracy Index EIU Overall Democracy Index, © The Economist Intelligence Unit Limited 2021 | 4.35 | 6.97 | 55 | 2021 |

2.4 · Business Legislation

Value Average Rank Year

| | | | | |
|--|------|------|----|------|
| 2.4.01 · Tariff barriers | 2.85 | 2.32 | 50 | 2020 |
| Tariffs on imports: Applied weighted mean tariff rate for all products | | | | |
| 2.4.02 · Protectionism | 4.33 | 5.74 | 52 | 2022 |
| Protectionism of your government does not impair the conduct of your business | | | | |
| 2.4.03 · Public sector contracts | 4.56 | 5.96 | 57 | 2022 |
| Public sector contracts are sufficiently open to foreign bidders | | | | |
| 2.4.04 · Foreign investors | 6.56 | 6.82 | 36 | 2022 |
| Foreign investors are free to acquire control in domestic companies | | | | |
| 2.4.05 · Capital markets | 5.44 | 6.57 | 48 | 2022 |
| Capital markets (foreign and domestic) are easily accessible | | | | |
| 2.4.06 · Investment incentives | 5.67 | 5.93 | 42 | 2022 |
| Investment incentives are attractive to foreign investors | | | | |
| 2.4.07 · Government subsidies | 2.25 | 2.02 | 39 | 2020 |
| To private and public companies as a percentage of GDP | | | | |
| 2.4.08 · Subsidies | 5.04 | 5.52 | 45 | 2022 |
| Subsidies do not distort fair competition and economic development | | | | |
| 2.4.09 · State ownership of enterprises | 5.28 | 6.04 | 47 | 2022 |
| State ownership of enterprises is not a threat to business activities | | | | |
| 2.4.10 · Competition legislation | 4.56 | 5.84 | 57 | 2022 |
| Competition legislation is efficient in preventing unfair competition | | | | |
| 2.4.11 · Parallel economy | 3.01 | 5.14 | 56 | 2022 |
| Parallel (black-market, unrecorded) economy does not impair economic development | | | | |
| 2.4.12 · New business density | 1.5 | 5.8 | 49 | 2019 |
| Registered new businesses per 1'000 people aged 15-64 | | | | |
| 2.4.13 · Creation of firms | 5.90 | 6.63 | 50 | 2022 |
| Creation of firms is supported by legislation | | | | |
| 2.4.14 · Start-up days | 7.0 | 15.1 | 23 | 2019 |
| Number of days to start a business | | | | |
| 2.4.15 · Start-up procedures | 7.0 | 6.0 | 39 | 2019 |
| Number of procedures to start a business | | | | |
| 2.4.16 · Labor regulations | 5.22 | 5.50 | 38 | 2022 |
| Labor regulations (hiring/firing practices, minimum wages, etc.) do not hinder business activities | | | | |
| 2.4.17 · Unemployment legislation | 4.66 | 4.99 | 40 | 2022 |
| Unemployment legislation provides an incentive to look for work | | | | |
| 2.4.18 · Immigration laws | 4.91 | 5.83 | 50 | 2022 |
| Immigration laws do not prevent your company from employing foreign labor | | | | |
| 2.4.19 · Redundancy costs | 23.1 | 9.4 | 54 | 2019 |
| Number of weeks of salary | | | | |

2.5 · Societal Framework

Value Average Rank Year

| | | | | |
|--|-------|-------|----|------|
| 2.5.01 · Justice Justice is fairly administered | 3.23 | 5.72 | 53 | 2022 |
| 2.5.02 · Homicide Intentional homicide, rate per 100'000 population | 2.40 | 4.28 | 43 | 2019 |
| 2.5.03 · Ageing of population Population over 65, percentage of total population | 9.5 | 14.8 | 18 | 2021 |
| 2.5.04 · Risk of political instability The risk of political instability is very low | 2.92 | 5.80 | 55 | 2022 |
| 2.5.05 · Social cohesion Social cohesion is high | 3.77 | 5.68 | 54 | 2022 |
| 2.5.06 · Gini coefficient Equal distribution of income scale: 0 (absolute equality) to 100 (absolute inequality) | 41.90 | 35.03 | 52 | 2019 |
| 2.5.07 · Income distribution - lowest 10% Percentage of household incomes going to lowest 10% of households | 2.20 | 2.75 | | 2018 |
| 2.5.08 · Income distribution - highest 10% Percentage of household incomes going to highest 10% of households | 32.60 | 26.98 | | 2018 |
| 2.5.09 · Income distribution - lowest 40% Percentile going to the lowest 40% of households | 15.90 | 18.99 | 43 | 2018 |
| 2.5.10 · Income distribution - lowest 40% growth Percentile going to the lowest 40% of households - growth | -0.63 | 0.34 | 26 | 2018 |
| 2.5.11 · Equal opportunity Equal opportunity legislation in your economy encourages economic development | 3.85 | 6.17 | 59 | 2022 |
| 2.5.12 · Females in parliament Percentage of total seats in Parliament | 17.33 | 29.11 | 51 | 2021 |
| 2.5.13 · Unemployment rate - gender ratio Ratio of the female and male unemployment rates | 1.37 | 1.25 | 56 | 2021 |
| 2.5.14 · Gender inequality Gender Inequality Index (UNDP) | 0.306 | 0.183 | 49 | 2019 |
| 2.5.15 · Disposable Income Female / male ratio | 46.3 | 72.2 | 58 | 2021 |
| 2.5.16 · Freedom of the Press Reporters Without Borders: World Press Freedom Score | 46.14 | 27.85 | 57 | 2021 |

TURKEY

Extended Country Profile

3 · Business Efficiency

| 3.1 · Productivity & Efficiency | Value | Average | Rank | Year |
|---|---------|---------|------|------|
| 3.1.01 · Overall productivity (PPP) Estimates: GDP (PPP) per person employed, US\$ | 97,653 | 84,576 | 26 | 2021 |
| 3.1.02 · Overall productivity (PPP) - real growth Estimates: Percentage change of GDP (PPP) per person employed | 2.38 | 2.84 | 39 | 2021 |
| 3.1.03 · Labor productivity (PPP) Estimates: GDP (PPP) per person employed per hour, US\$ | 59.20 | 48.28 | 22 | 2021 |
| 3.1.04 · Agricultural productivity (PPP) Estimates: Related GDP (PPP) per person employed in agriculture, US\$ | 54,484 | 55,834 | 28 | 2021 |
| 3.1.05 · Productivity in industry (PPP) Estimates: Related GDP (PPP) per person employed in industry, US\$ | 128,462 | 107,180 | 20 | 2021 |
| 3.1.06 · Productivity in services (PPP) Estimates: Related GDP (PPP) per person employed in services, US\$ | 103,954 | 86,235 | 19 | 2021 |
| 3.1.07 · Workforce productivity Workforce productivity is competitive by international standards | 5.54 | 6.15 | 43 | 2022 |
| 3.1.08 · Large corporations Large corporations are efficient by international standards | 5.80 | 6.67 | 53 | 2022 |
| 3.1.09 · Small and medium-size enterprises Small and medium-size enterprises are efficient by international standards | 4.66 | 6.12 | 54 | 2022 |
| 3.1.10 · Use of digital tools and technologies Companies are very good at using digital tools and technologies to improve performance | 5.39 | 6.29 | 51 | 2022 |

| | | | | |
|--|---------|---------|----|------|
| 3.2.01 · Compensation levels | 4.12 | 15.09 | 14 | 2021 |
| Total hourly compensation in manufacturing (wages + supplementary benefits), US\$ | | | | |
| 3.2.02 · Unit labor costs for total economy | 8.70 | 1.59 | 53 | 2021 |
| Percentage change | | | | |
| 3.2.03 · Remuneration in services professions | 8,368 | 28,619 | 5 | 2018 |
| Gross annual income including supplements such as bonuses, US\$ | | | | |
| Remuneration in services professions / Call center agent | 4,888 | 19,099 | | 2018 |
| Remuneration in services professions / Nurse | 9,557 | 30,277 | | 2018 |
| Remuneration in services professions / Primary school | 9,467 | 30,970 | | 2018 |
| Remuneration in services professions / Product Manager | 12,688 | 49,302 | | 2018 |
| Remuneration in services professions / Sales Assistant | 6,386 | 19,165 | | 2018 |
| Remuneration in services professions / Secretary / Personal | 7,224 | 22,903 | | 2018 |
| 3.2.04 · Remuneration of management | 128,492 | 169,169 | 22 | 2019 |
| Total base salary plus bonuses and long-term incentives, US\$ | | | | |
| Remuneration of management / CEO | 285,596 | 306,535 | | 2019 |
| Remuneration of management / Director manufacturing | 85,527 | 149,356 | | 2019 |
| Remuneration of management / Engineer | 35,855 | 80,327 | | 2019 |
| Remuneration of management / Human resources director | 106,992 | 140,455 | | 2019 |
| 3.2.05 · Remuneration spread | 45.32 | 17.99 | 58 | 2018 |
| Ratio of CEO to personal assistant remuneration | | | | |
| 3.2.06 · Working hours | 1,649 | 1,843 | 43 | 2021 |
| Average number of working hours per year | | | | |
| 3.2.07 · Worker motivation | 4.67 | 5.87 | 56 | 2022 |
| Worker motivation in companies is high | | | | |
| 3.2.08 · Industrial disputes | 0.67 | 12.21 | 21 | 2020 |
| Working days lost per 1,000 inhabitants per year (average 2018-2020) | | | | |
| 3.2.09 · Apprenticeships | 3.67 | 5.20 | 57 | 2022 |
| Apprenticeships are sufficiently implemented | | | | |
| 3.2.10 · Employee training | 4.33 | 6.03 | 63 | 2022 |
| Employee training is a high priority in companies | | | | |
| 3.2.11 · Labor force | 32.72 | 40.47 | 12 | 2021 |
| Employed and registered unemployed (millions) | | | | |
| 3.2.12 · Labor force (%) | 38.63 | 50.09 | 59 | 2021 |
| Percentage of population | | | | |
| 3.2.13 · Labor force growth | 6.45 | 1.18 | 4 | 2021 |
| Percentage change | | | | |
| 3.2.14 · Labor force - long-term growth | -2.63 | -0.67 | 47 | 2021 |
| Estimates: five year percentage change | | | | |
| 3.2.15 · Part-time employment | 11.35 | 15.19 | 36 | 2020 |
| Percentage of total employment | | | | |
| 3.2.16 · Female labor force | 32.28 | 42.68 | 56 | 2021 |
| Percentage of total labor force | | | | |
| 3.2.17 · Foreign labor force - migrant stock | 8.63 | 17.76 | 38 | 2020 |
| Migrant stock, age 20-64, % of population | | | | |
| 3.2.18 · Skilled labor | 4.48 | 5.21 | 45 | 2022 |
| Skilled labor is readily available | | | | |
| 3.2.19 · Finance skills | 4.63 | 6.07 | 58 | 2022 |
| Finance skills are readily available | | | | |
| 3.2.20 · Attracting and retaining talents | 5.27 | 6.82 | 59 | 2022 |
| Attracting and retaining talents is a priority in companies | | | | |
| 3.2.21 · Brain drain | 3.31 | 4.93 | 52 | 2022 |
| Brain drain (well-educated and skilled people) does not hinder competitiveness in your economy | | | | |
| 3.2.22 · Foreign highly-skilled personnel | 3.80 | 5.39 | 52 | 2022 |
| Foreign highly-skilled personnel are attracted to your country's business environment | | | | |
| 3.2.23 · International experience | 5.09 | 5.62 | 43 | 2022 |
| International experience of senior managers is generally significant | | | | |
| 3.2.24 · Competent senior managers | 4.53 | 5.45 | 46 | 2022 |
| Competent senior managers are readily available | | | | |

3.3 · Finance

Value Average Rank Year

| | | | | |
|--|--------|---------|----|------|
| 3.3.01 · Banking sector assets Percentage of GDP | 92.77 | 157.54 | 45 | 2021 |
| 3.3.02 · Financial cards in circulation Number of cards per capita | 5.26 | 3.45 | 11 | 2021 |
| 3.3.03 · Financial card transactions US\$ per capita | 3,872 | 11,334 | 48 | 2021 |
| 3.3.04 · Access to financial services Proportion of adults with a bank account or mobile-money-service provider | 68.59 | 82.66 | 51 | 2017 |
| 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 | 0.65 | 0.96 | 60 | 2017 |
| 3.3.06 · Banking and financial services Banking and financial services do support business activities efficiently | 5.42 | 6.24 | 51 | 2022 |
| 3.3.07 · Regulatory compliance (banking laws) Regulatory compliance is sufficiently developed | 6.20 | 6.92 | 51 | 2022 |
| 3.3.08 · Stock markets Stock markets provide adequate financing to companies | 4.84 | 5.83 | 46 | 2022 |
| 3.3.09 · Stock market capitalization (\$bn) US\$ billions | 245.2 | 1,470.4 | 33 | 2021 |
| 3.3.10 · Stock market capitalization (%) Percentage of GDP | 30.16 | 105.47 | 48 | 2021 |
| 3.3.11 · Value traded on stock markets US\$ per capita | 10,388 | 23,478 | 21 | 2020 |
| 3.3.12 · Listed domestic companies Number of listed domestic companies | 371 | 718 | 22 | 2020 |
| 3.3.13 · Stock market index Percentage change on index in national currency | 33.20 | 26.39 | 15 | 2021 |
| 3.3.14 · Shareholders' rights Shareholders' rights are sufficiently implemented | 5.49 | 6.91 | 59 | 2022 |
| 3.3.15 · Initial Public Offerings By acquiror nation (average 2019-2021) US\$ millions | 539.8 | 4,258.5 | 32 | 2021 |
| 3.3.16 · Credit Credit is easily available for business | 4.73 | 6.05 | 53 | 2022 |
| 3.3.17 · Venture capital Venture capital is easily available for business | 3.95 | 5.34 | 55 | 2022 |
| 3.3.18 · M&A Activity Deals per listed company (average 2018-2020) | 0.420 | 1.193 | 33 | 2020 |
| 3.3.19 · Corporate debt Corporate debt does not restrain the ability of enterprises to compete | 3.74 | 5.83 | 62 | 2022 |

| 3.4 · Management Practices | Value | Average | Rank | Year |
|---|-------|---------|------|------|
| 3.4.01 · Agility of companies Companies are agile | 5.59 | 6.08 | 46 | 2022 |
| 3.4.02 · Changing market conditions Companies are generally extremely aware of changing market conditions | 6.41 | 6.69 | 45 | 2022 |
| 3.4.03 · Opportunities and threats Companies are very good at responding quickly to opportunities and threats | 5.90 | 6.29 | 47 | 2022 |
| 3.4.04 · Credibility of managers Credibility of managers in society is strong | 5.34 | 6.15 | 51 | 2022 |
| 3.4.05 · Corporate boards Corporate boards do supervise the management of companies effectively | 5.08 | 6.17 | 57 | 2022 |
| 3.4.06 · Auditing and accounting practices Auditing and accounting practices are adequately implemented in business | 5.54 | 7.25 | 62 | 2022 |
| 3.4.07 · Use of big data and analytics Companies are very good at using big data and analytics to support decision-making | 4.82 | 5.33 | 40 | 2022 |
| 3.4.08 · Customer satisfaction Customer satisfaction is emphasized in companies | 6.15 | 6.95 | 56 | 2022 |
| 3.4.09 · Entrepreneurship Entrepreneurship of managers is widespread in business | 5.31 | 6.07 | 54 | 2022 |
| 3.4.10 · Social responsibility Social responsibility of business leaders is high | 5.38 | 6.16 | 50 | 2022 |
| 3.4.11 · Women in management Female share of senior and middle management (% of management) | 17.46 | 31.46 | 50 | 2019 |
| 3.4.12 · Women on boards Boardmembers of all companies analyzed by MSCI | 18.80 | 24.22 | 35 | 2021 |
| 3.4.13 · Entrepreneurial fear of failure % indicating that fear of failure would prevent them from setting up a business | 39.84 | 42.81 | 16 | 2021 |
| 3.4.14 · Total early-stage Entrepreneurial Activity % who are either a nascent entrepreneur or owner-manager of a new business | 15.69 | 12.11 | 14 | 2021 |

| 3.5 · Attitudes and Values | Value | Average | Rank | Year |
|---|-------|---------|------|------|
| 3.5.01 · Attitudes toward globalization Attitudes toward globalization are generally positive in your society | 5.10 | 6.47 | 59 | 2022 |
| 3.5.02 · Image abroad or branding The image abroad of your country encourages business development | 4.38 | 6.44 | 57 | 2022 |
| 3.5.03 · National culture The national culture is open to foreign ideas | 6.23 | 6.82 | 50 | 2022 |
| 3.5.04 · Flexibility and adaptability Flexibility and adaptability of people are high when faced with new challenges | 5.97 | 6.63 | 49 | 2022 |
| 3.5.05 · Need for economic and social reforms The need for economic and social reforms is generally well understood | 5.13 | 5.88 | 47 | 2022 |
| 3.5.06 · Digital transformation in companies Digital transformation in companies is generally well implemented | 5.42 | 5.95 | 39 | 2022 |
| 3.5.07 · Value system The value system in your society supports competitiveness | 5.31 | 6.23 | 52 | 2022 |

TURKEY

Extended Country Profile

4 · Infrastructure

4.1 · Basic Infrastructure

| | Value | Average | Rank | Year |
|---|--------|---------|------|------|
| 4.1.01 · Land area Square kilometers ('000) | 785 | 1,207 | 17 | 2021 |
| 4.1.02 · Arable area Square meters per capita | 2,778 | 2,704 | 22 | 2019 |
| 4.1.03 · Water resources Total internal renewable per capita in cubic meters | 2,757 | 18,375 | 37 | 2018 |
| 4.1.04 · Access to water Access to water is adequately ensured and managed | 7.41 | 7.90 | 43 | 2022 |
| 4.1.05 · Management of cities Management of cities supports business development | 5.67 | 6.61 | 50 | 2022 |
| 4.1.06 · Population - market size Estimates in millions | 84.68 | 81.51 | 9 | 2021 |
| 4.1.07 · Population - growth Percentage change | 1.27 | 0.30 | 10 | 2021 |
| 4.1.08 · Dependent Population Percentage of total population | 32.3 | 33.6 | | 2021 |
| Population over 65 years | 9.5 | 14.8 | | 2021 |
| Population under 15 years | 22.8 | 18.7 | | 2021 |
| 4.1.09 · Dependency ratio Population under 15 and over 64 years old, divided by active population (15 to 64 years) | 47.7 | 51.2 | 18 | 2021 |
| 4.1.10 · Roads Density of the network, km roads/square km land area | 0.34 | 1.39 | 39 | 2019 |
| 4.1.11 · Railroads Density of the network, km per square km | 0.013 | 0.049 | 41 | 2020 |
| 4.1.12 · Air transportation Number of passengers carried by main companies, thousands | 44,723 | 27,297 | 7 | 2020 |
| 4.1.13 · Quality of air transportation Quality of air transportation encourages business development | 7.23 | 7.07 | 36 | 2022 |
| 4.1.14 · Distribution infrastructure The distribution infrastructure of goods and services is generally efficient | 6.05 | 7.12 | 50 | 2022 |
| 4.1.15 · Energy infrastructure Energy infrastructure is adequate and efficient | 5.87 | 6.81 | 49 | 2022 |
| 4.1.16 · Total indigenous energy production Millions MTOE | 45.70 | 169.14 | 26 | 2019 |
| 4.1.17 · Total indigenous energy production (%) Percentage of total requirements in tons of oil equivalent | 31.2 | 106.4 | 48 | 2019 |
| 4.1.18 · Total final energy consumption Millions MTOE | 104.39 | 122.04 | 49 | 2019 |
| 4.1.19 · Total final energy consumption per capita MTOE per capita | 1.26 | 2.46 | 13 | 2019 |
| 4.1.20 · Electricity costs for industrial clients US\$ per kwh | 0.103 | 0.107 | 30 | 2020 |

4.2 · Technological Infrastructure

Value Average Rank Year

| | | | | |
|---|-------|--------|----|------|
| 4.2.01 · Investment in Telecommunications Percentage of GDP | 0.28 | 0.42 | 48 | 2021 |
| 4.2.02 · Mobile Broadband subscribers 4G & 5G market, % of mobile market | 94.9 | 71.5 | 4 | 2020 |
| 4.2.03 · Mobile Telephone costs Monthly Blended Average Revenue per User | 5.7 | 15.7 | 12 | 2020 |
| 4.2.04 · Communications technology Communications technology (voice and data) meets business requirements | 6.18 | 7.67 | 54 | 2022 |
| 4.2.05 · Secure internet servers publicly-trusted TLS/SSL certificates, Netcraft Secure Server Survey. | 6,760 | 36,109 | 42 | 2020 |
| 4.2.06 · Internet users Number of internet users per 1000 people | 805 | 839 | 45 | 2021 |
| 4.2.07 · Broadband subscribers Number of subscriptions per 1000 inhabitants | 191 | 381 | 50 | 2020 |
| 4.2.08 · Internet bandwidth speed Average speed | 25.3 | 93.5 | 60 | 2021 |
| 4.2.09 · Digital/Technological skills Digital/Technological skills are readily available | 5.95 | 6.79 | 50 | 2022 |
| 4.2.10 · Qualified engineers Qualified engineers are available in your labor market | 5.77 | 6.35 | 47 | 2022 |
| 4.2.11 · Public-private partnerships Public and private sector ventures are supporting technological development | 5.52 | 6.08 | 48 | 2022 |
| 4.2.12 · Development & application of tech. Development and application of technology are supported by the legal environment | 5.67 | 6.46 | 51 | 2022 |
| 4.2.13 · Funding for technological development Funding for technological development is readily available | 4.62 | 5.98 | 55 | 2022 |
| 4.2.14 · High-tech exports (\$) US\$ millions | 4,173 | 47,160 | 36 | 2020 |
| 4.2.15 · High-tech exports (%) Percentage of manufactured exports | 3.15 | 18.12 | 59 | 2020 |
| 4.2.16 · ICT service exports Percentage of service exports | 2.4 | 9.7 | 57 | 2018 |
| 4.2.17 · Cyber security Cyber security is being adequately addressed by corporations | 5.01 | 5.89 | 49 | 2022 |

4.3 · Scientific Infrastructure

Value Average Rank Year

| | | | | |
|---|--------|--------|----|------|
| 4.3.01 · Total expenditure on R&D (\$) US\$ millions | 7,841 | 31,953 | 25 | 2020 |
| 4.3.02 · Total expenditure on R&D (%) Percentage of GDP | 1.09 | 1.63 | 39 | 2020 |
| 4.3.03 · Total expenditure on R&D per capita (\$) US\$ per capita | 93.8 | 647.1 | 46 | 2020 |
| 4.3.04 · Business expenditure on R&D (\$) US\$ millions | 5,083 | 24,238 | 24 | 2020 |
| 4.3.05 · Business expenditure on R&D (%) Percentage of GDP | 0.71 | 1.11 | 34 | 2020 |
| 4.3.06 · Total R&D personnel Full-time work equivalent (FTE thousands) | 199.4 | 233.3 | 12 | 2020 |
| 4.3.07 · Total R&D personnel per capita Full-time work equivalent (FTE) per 1000 people | 2.38 | 5.37 | 41 | 2020 |
| 4.3.08 · Total R&D personnel in business enterprise Full-time work equivalent (FTE thousands) | 130.3 | 183.3 | 12 | 2020 |
| 4.3.09 · Total R&D personnel in business per capita Full-time work equivalent (FTE) per 1000 people | 1.56 | 3.31 | 38 | 2020 |
| 4.3.10 · Researchers in R&D per capita Full-time work equivalent (FTE) per 1000 people | 1.8 | 3.6 | 40 | 2020 |
| 4.3.11 · Graduates in Sciences % of graduates in ICT, Engineering, Math & Natural Sciences | 18.36 | 24.75 | 55 | 2019 |
| 4.3.12 · Scientific articles Scientific articles published by origin of author | 37,430 | 39,473 | 14 | 2019 |
| 4.3.13 · Nobel prizes Awarded in physics, chemistry, physiology or medicine and economics since 1950 | 1 | 9 | 21 | 2021 |
| 4.3.14 · Nobel prizes per capita Awarded in physics, chemistry, physiology or medicine and economics since 1950 per million people | 0.01 | 0.19 | 25 | 2021 |
| 4.3.15 · Patent applications Number of applications filed by applicant's origin | 10,110 | 52,962 | 22 | 2020 |
| 4.3.16 · Patent applications per capita Number of applications filed by applicant's origin, per 100,000 inhabitants | 12.09 | 80.01 | 37 | 2020 |
| 4.3.17 · Patent grants Number of patents granted by applicant's origin (average 2018-2020) | 3,312 | 25,007 | 26 | 2020 |
| 4.3.18 · Number of patents in force by applicant's origin, per 100,000 inhabitants | 21.2 | 491.7 | 42 | 2020 |
| 4.3.19 · Medium- and high-tech value added Proportion of total manufacturing value added, expressed as a percentage | 33.72 | 38.63 | 40 | 2019 |
| 4.3.20 · Scientific research legislation Laws relating to scientific research do encourage innovation | 5.34 | 5.97 | 45 | 2022 |
| 4.3.21 · Intellectual property rights Intellectual property rights are adequately enforced | 4.97 | 6.59 | 59 | 2022 |
| 4.3.22 · Knowledge transfer Knowledge transfer is highly developed between companies and universities | 4.58 | 5.52 | 51 | 2022 |

4.4 · Health and Environment

Value Average Rank Year

| | | | | |
|---|--------|--------|----|------|
| 4.4.01 · Total health expenditure Percentage of GDP | 4.3 | 7.5 | 52 | 2019 |
| 4.4.02 · Total health expenditure per capita US\$ per capita | 397 | 2,614 | 54 | 2019 |
| 4.4.03 · Public expenditure on health (%) Percentage of total health expenditure | 77.92 | 65.44 | 14 | 2019 |
| 4.4.04 · Health infrastructure Health infrastructure meets the needs of society | 5.92 | 5.97 | 35 | 2022 |
| 4.4.05 · Universal health coverage index Coverage index for essential health services (0-100) | 79 | 78 | 30 | 2019 |
| 4.4.06 · Life expectancy at birth Average estimate | 77.9 | 78.4 | 35 | 2020 |
| 4.4.07 · Healthy life expectancy Average estimate | 68.5 | 68.3 | 33 | 2021 |
| 4.4.08 · Infant mortality Under five mortality rate per 1000 live births | 9.5 | 7.9 | 50 | 2020 |
| 4.4.09 · Medical assistance Number of inhabitants per physician and per nurse | | | 53 | 2021 |
| Medical assistance / Per nurse | 401.66 | 302.83 | | 2021 |
| Medical assistance / Per physician | 592.92 | 533.91 | | 2021 |
| 4.4.10 · Urban population Percentage of total population | 77 | 77 | | 2021 |
| 4.4.11 · Human development index Combines economic - social - educational indicators/ Source: Human Development Report | 0.820 | 0.862 | 47 | 2019 |
| 4.4.12 · Energy intensity Total energy consumed for each 1000 US\$ of GDP in MTOE | 132 | 102 | 51 | 2018 |
| 4.4.13 · Safely treated waste water Percentage of waste water | 63.3 | 76.7 | 47 | 2020 |
| 4.4.14 · Water use efficiency US\$ per cubic meter | 13.75 | 97.67 | 51 | 2019 |
| 4.4.15 · CO2 emissions Metric tons of carbon dioxide from fuel combustion | 366.1 | 420.2 | 50 | 2020 |
| 4.4.16 · CO2 emissions intensity CO2 emissions from fuel combustion in metric tons per one million US\$ of GDP | 508.4 | 354.2 | 52 | 2020 |
| 4.4.17 · Exposure to particle pollution Mean population exposure to PM2.5, Micrograms per cubic metre | 26.85 | 20.45 | 51 | 2019 |
| 4.4.18 · Renewable energies (%) Share of renewables in total energy requirements, % | 15.9 | 16.8 | 27 | 2019 |
| 4.4.19 · Forest area growth Five year percentage change of hectares | 2.7 | 0.4 | 8 | 2020 |
| 4.4.20 · Total biocapacity Global hectares per capita of biologically productive space | 1.30 | 3.26 | 35 | 2018 |
| 4.4.21 · Ecological footprint Global hectares per person | 3.3 | 5.0 | 13 | 2018 |
| 4.4.22 · Ecological balance (reserve/deficit) Total biocapacity minus total footprint in global hectares per capita | -2.04 | -1.73 | 30 | 2018 |
| 4.4.23 · Environment-related technologies Development of environment-related technologies, % inventions worldwide | 0.22 | 1.60 | 25 | 2019 |
| 4.4.24 · Environmental agreements Multilateral agreements on hazardous waste, proportion fulfilled | 52.45 | 83.34 | 57 | 2015 |
| 4.4.25 · Sustainable development Sustainable development is a priority in companies | 5.33 | 6.21 | 50 | 2022 |
| 4.4.26 · Pollution problems Pollution problems do not seriously affect your economy | 3.95 | 5.71 | 55 | 2022 |
| 4.4.27 · Environmental laws Environmental laws and compliance do not hinder the competitiveness of businesses | 5.09 | 6.17 | 53 | 2022 |
| 4.4.28 · Quality of life Quality of life is high | 4.08 | 6.76 | 58 | 2022 |

4.5 · Education

Value Average Rank Year

| | | | | |
|---|-------|-------|----|------|
| 4.5.01 · Total public expenditure on education Percentage of GDP | 5.4 | 5.0 | 24 | 2020 |
| 4.5.02 · Total public expenditure on education per capita US\$ per capita | 462 | 1,562 | 49 | 2020 |
| 4.5.03 · Total public exp. on education per student Spending per enrolled pupil/student, all levels | 1,306 | 6,944 | 52 | 2019 |
| 4.5.04 · Pupil-teacher ratio (primary education) Ratio of students to teaching staff | 17.52 | 15.95 | 46 | 2019 |
| 4.5.05 · Pupil-teacher ratio (secondary education) Ratio of students to teaching staff | 13.37 | 13.74 | 44 | 2019 |
| 4.5.06 · Secondary school enrollment Percentage of relevant age group receiving full-time education | 89.2 | 92.7 | 50 | 2019 |
| 4.5.07 · Higher education achievement Percentage of population that has attained at least tertiary education for persons 25-34 | 35.3 | 44.2 | 43 | 2019 |
| 4.5.08 · Women with degrees Share of women who have a degree in the population 25-65 | 20.8 | 39.7 | 51 | 2019 |
| 4.5.09 · Student mobility inbound Foreign tertiary-level students per 1000 inhabitants | 1.86 | 4.01 | 41 | 2019 |
| 4.5.10 · Student mobility outbound National tertiary-level students studying abroad per 1000 inhabitants | 0.57 | 2.62 | 52 | 2019 |
| 4.5.11 · Educational assessment - PISA PISA survey of 15-year olds | 462 | 471 | 38 | 2018 |
| Educational assessment - PISA / Mathematics | 454 | 472 | | 2018 |
| Educational assessment - PISA / Reading | 466 | 468 | | 2018 |
| Educational assessment - PISA / Sciences | 468 | 472 | | 2018 |
| 4.5.12 · Students who are not low achievers - PISA % of students who are not low achievers in maths, sciences and reading | 56.9 | 58.5 | 36 | 2018 |
| 4.5.13 · English proficiency - TOEFL TOEFL scores | 87 | 92 | 50 | 2020 |
| 4.5.14 · Primary and secondary education Primary and secondary education meets the needs of a competitive economy | 3.72 | 6.10 | 56 | 2022 |
| 4.5.15 · University education University education meets the needs of a competitive economy | 4.46 | 6.40 | 58 | 2022 |
| 4.5.16 · Management education Management education meets the needs of the business community | 4.73 | 6.34 | 57 | 2022 |
| 4.5.17 · University education index Country score calculated from Times Higher Education university ranking | 7.16 | 14.07 | 34 | 2021 |
| 4.5.18 · Illiteracy Adult (over 15 years) illiteracy rate as a percentage of population | 3.3 | 2.4 | 49 | 2019 |
| 4.5.19 · Language skills Language skills are meeting the needs of enterprises | 4.41 | 6.41 | 56 | 2022 |

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.

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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.*

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