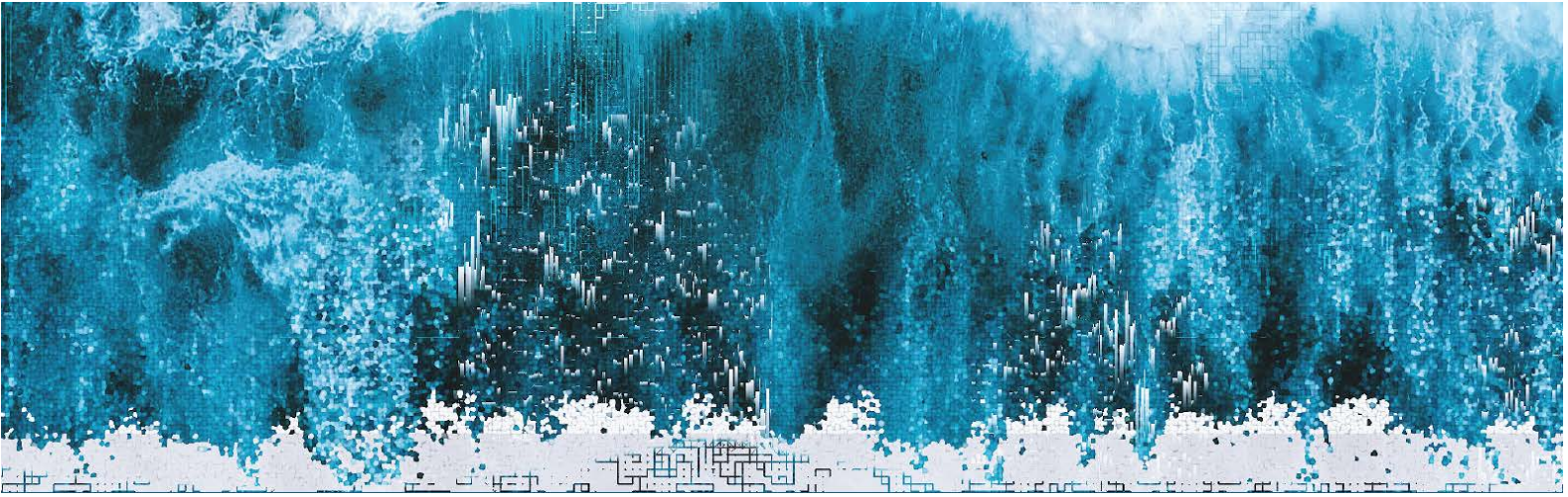


# GLOBAL INNOVATION INDEX 2018

# Oman

**69th** Oman is ranked 69th in the GII 2018, moving up 8 positions from last year.

The GII indicators are grouped into innovation inputs and outputs. The following table reflects Oman's ranking over time[1].

**Oman's ranking over time**

| | GII | Input | Output | Efficiency |
|---|---|---|---|---|
| **2018** | 69 | 57 | 75 | 92 |
| **2017** | 77 | 62 | 90 | 115 |
| **2016** | 73 | 63 | 86 | 103 |

- Oman performs better in innovation inputs than outputs.
- Oman improves its innovation inputs, reaching the 57th position this year, up 5 spots from 2017 and 6 from 2016.
- Innovation outputs gain 15 positions this year, taking the 75th position this year.
- The Innovation Efficiency Ratio, ranked 92nd in 2018, improves this year, up from the 115th and 103rd positions in the last two years. In this ratio Oman ranks lower than in the overall GII, showing that Oman could improve its efficiency in translating innovation inputs into outputs. This low rank is partly influenced by a higher ranking in inputs (57th) compared to outputs (75th).

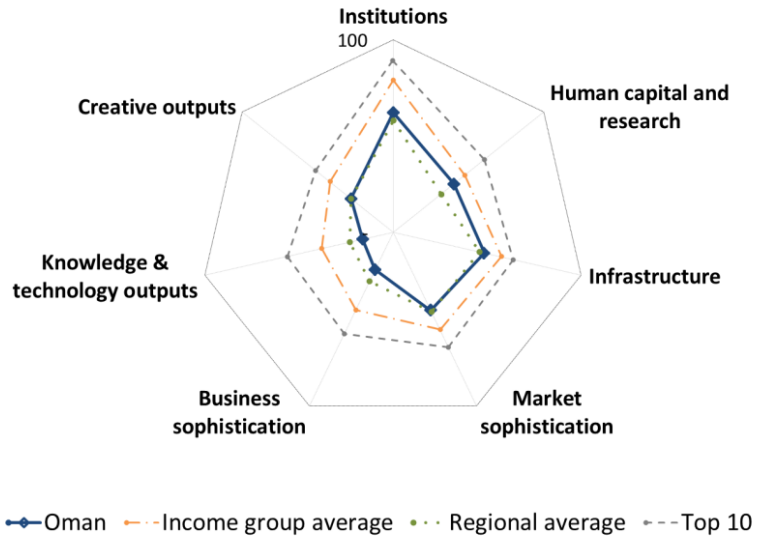
**45th** Oman is ranked 45th among the 47 high-income countries in the GII 2018.

**11th** Oman is ranked 11th among the 19 countries in Northern Africa and Western Asia.

[1] Note that year-on-year comparisons of the GII ranks are imperfect and influenced by changes in the GII model and data availability.

## Benchmarking Oman to other high-income countries and the Northern Africa and Western Asia region

Oman's scores by area




**High-income countries**

Oman scores below the average of the high-income group in all 7 GII areas.

**Northern Africa and Western Asia region**

Compared to other countries in the Northern Africa and Western Asia region, Oman performs above-average in 4 of the 7 GII areas: Institutions, Human Capital & Research, Infrastructure, and Creative Outputs.

## Oman's innovation profile

### Strengths

- Most of GII strengths for Oman are accrued in **innovation inputs**.
- Oman obtains great results in **Human Capital & Research** (39th), the top-ranked GII area, and the only GII area highlighted as a strength for the country. Within this area, Oman shows strong performance in the area *Tertiary education*, where it positions 4th. At the indicator level, GII strengths are shown in *Expenditure on education* (19th), *Government funding per pupil* (8th), and *Graduates in science & engineering*, which positions 1st globally.
- In **Infrastructure** (54th), GII strengths lie in the area *General infrastructure* (14th) as well as in the indicators *Electricity output* (29th) and *Gross capital formation* (12th).
- In **Institutions** (64th), Oman has strengths in the indicators *Political stability & safety* (27th) *and Ease of starting a business* (28th).
- In **Market Sophistication** (72nd), two indicators – *Domestic credit to private sector* (41st) and *Applied tariff rate* (18th) – are highlighted as Oman's strengths.
- Finally, on the input side of the GII, the indicator *Joint venture–strategic alliance deal* (38th) is marked as Oman's strength within **Business Sophistication** (110th).
- On the **innovation output** side, one strength is found in the area *Intangible assets* (33rd) within **Creative Outputs** (65th).

## Weaknesses

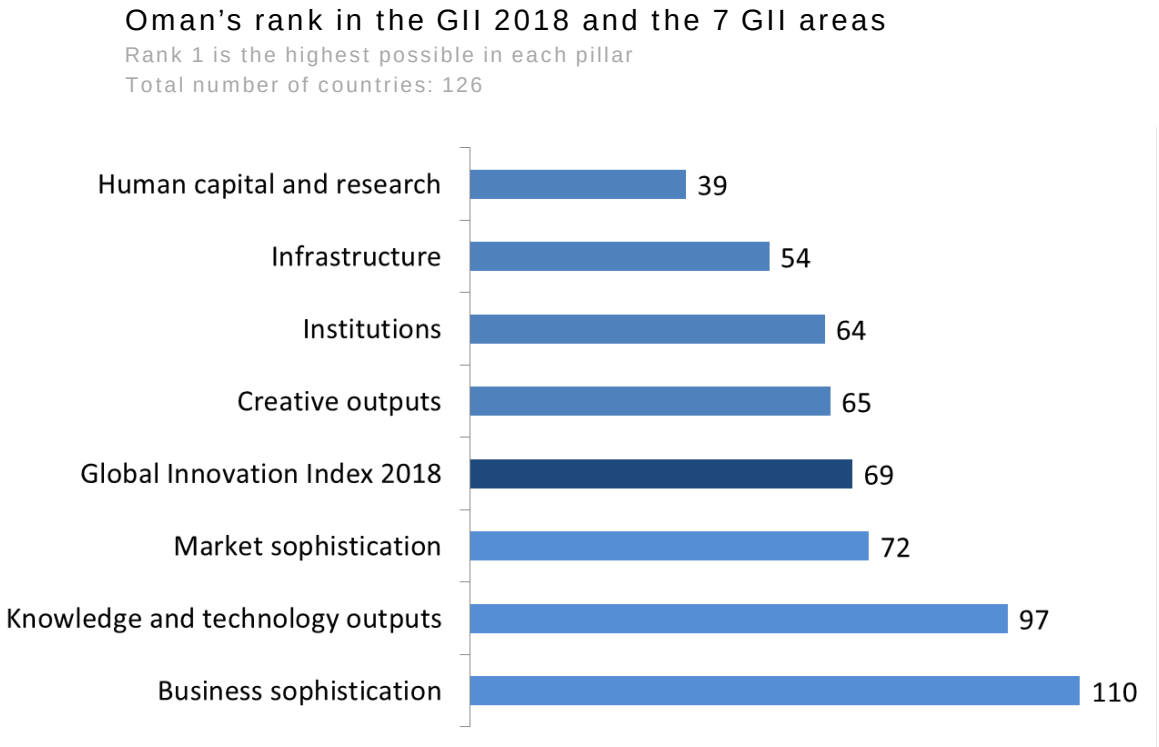
- Most of the relative weaknesses for Oman are exhibited within **Business Sophistication** (110th), the lowest ranking GII area for the country. Here Oman performs relatively weakly in the area *Knowledge absorption* (123rd) as well as in the indicators *R&D financed by abroad* (100th), *Patent families in 2 or more offices* (103rd), *High-tech imports* (112th), *ICT services imports* (114th), and *FDI inflows* (119th).

- Other GII weaknesses on the **innovation input** side are found in two indicators. *Global R&D companies' expenditure* (40th) is a relative weakness within **Human Capital & Research** (39th). *Intensity of local competition* (105th) is signaled as a GII weakness within **Market Sophistication** (72nd).

- On the **innovation output** side of the GII, in **Knowledge & Technology Outputs** (97th), Oman demonstrates relative weakness in two indicators: *PCT patents by origin* (101st) and *ICT services exports* (113th).

- In **Creative Outputs** (65th), one indicator – *National feature films* (103rd) – is relatively weak.

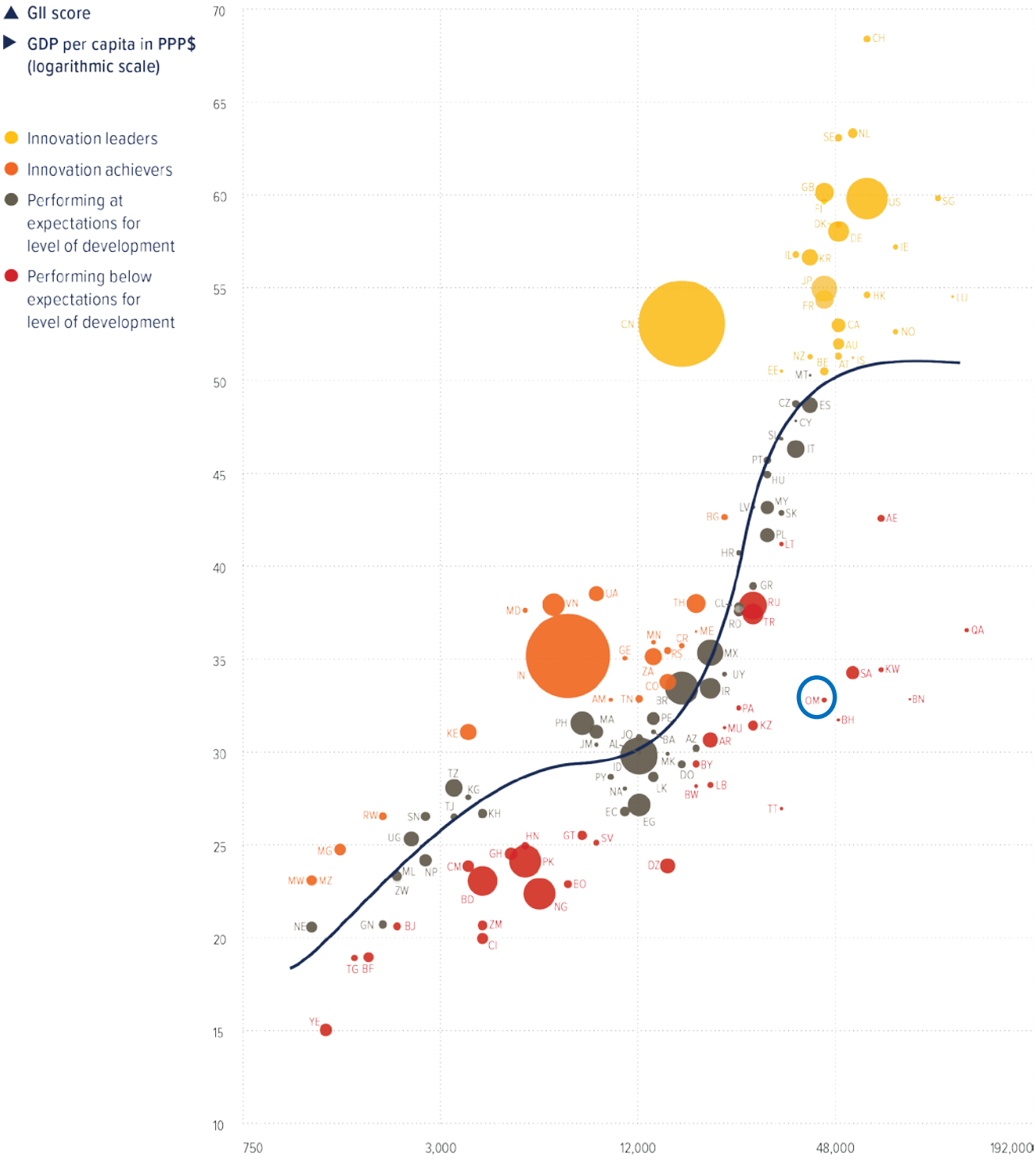
The following figure presents a summary of Oman's ranks in the 7 GII areas, as well as the overall rank in the GII 2018.



## Expected vs. Observed Innovation Performance

The GII bubble chart shows the relationship between income levels (GDP per capita) and innovation performance (GII score). The depicted trendline gives an indication of the expected innovation performance at different levels of income. Countries located above the trendline are performing better that what would be expected based on their income level. Countries below the line are Innovation Under-performers relative to GDP.

Relative to GDP, Oman performs below its expected level of development.



## Missing and Outdated Data

More and better data improves the ability of a country to understand its strengths and weaknesses and give policymakers greater capacity to plan and adapt public policies accordingly. The GII 2018 covers 126 countries that complied with the minimum indicator coverage of 35 indicators in the Innovation Input Sub-Index (66%) and 18 indicators in the Innovation Output Sub-Index (66%).

The following tables show data for Oman that is not available or that is outdated.

### Missing Data

| Code | Indicator | Country Year | Model Year | Source |
|---|---|---|---|---|
| 1.2.3 | Cost of redundancy dismissal, salary weeks | n/a | 2017 | World Bank, Ease of Doing Business |
| 2.1.4 | PISA scales in reading, maths & science | n/a | 2015 | OECD PISA |
| 2.1.5 | Pupil-teacher ratio, secondary | n/a | 2016 | UNESCO Institute for Statistics |
| 4.1.3 | Microfinance gross loans, % GDP | n/a | 2016 | Microfinance Information Exchange, Mix Market |
| 4.2.3 | Venture capital deals/bn PPP$ GDP | n/a | 2017 | Thomson Reuters, Thomson One Banker Private Equity, SDC Platinum |
| 5.1.2 | Firms offering formal training, % firms | n/a | 2013 | World Bank, Enterprise Surveys |
| 5.1.5 | Females employed w/advanced degrees, % | n/a | 2016 | ILO, ILOSTAT |
| 5.3.1 | Intellectual property payments, % total trade | n/a | 2016 | WTO, Trade in Commercial Services |
| 6.1.1 | Patents by origin/bn PPP$ GDP | n/a | 2016 | WIPO, Intellectual Property Statistics |
| 6.1.3 | Utility models by origin/bn PPP$ GDP | n/a | 2016 | WIPO, Intellectual Property Statistics |
| 6.3.1 | Intellectual property receipts, % total trade | n/a | 2016 | WTO, Trade in Commercial Services |
| 7.1.1 | Trademarks by origin/bn PPP$ GDP | n/a | 2016 | WIPO, Intellectual Property Statistics |
| 7.1.2 | Industrial designs by origin/bn PPP$ GDP | n/a | 2016 | WIPO, Intellectual Property Statistics |
| 7.2.1 | Cultural & creative services exports, % total trade | n/a | 2016 | WTO, Trade in Commercial Services |
| 7.3.4 | Mobile app creation/bn PPP$ GDP | n/a | 2017 | App Annie Intelligence |

### Outdated Data

| Code | Indicator | Country Year | Model Year | Source |
|---|---|---|---|---|
| 2.3.1 | Researchers, FTE/mn pop. | 2015 | 2016 | UNESCO Institute for Statistics |
| 2.3.2 | Gross expenditure on R&D, % GDP | 2015 | 2016 | UNESCO Institute for Statistics |
| 5.1.1 | Knowledge-intensive employment, % | 2008 | 2016 | ILO, ILOSTAT |
| 5.1.3 | GERD performed by business, % GDP | 2015 | 2016 | UNESCO Institute for Statistics |
| 5.2.3 | GERD financed by abroad, % | 2013 | 2015 | UNESCO Institute for Statistics |
| 5.3.2 | High-tech net imports, % total trade | 2015 | 2016 | UN COMTRADE |
| 5.3.3 | ICT services imports, % total trade | 2015 | 2016 | WTO, Trade in Commercial Services |
| 5.3.5 | Research talent, % in business enterprise | 2015 | 2016 | UNESCO Institute for Statistics |
| 6.3.2 | High-tech net exports, % total trade | 2015 | 2016 | UN COMTRADE |
| 6.3.3 | ICT services exports, % total trade | 2015 | 2016 | WTO, Trade in Commercial Services |
| 7.2.2 | National feature films/mn pop. 15–69 | 2009 | 2015 | UNESCO Institute for Statistics |
| 7.2.5 | Creative goods exports, % total trade | 2015 | 2016 | UN COMTRADE |
| 7.3.3 | Wikipedia edits/mn pop. 15–69 | 2014 | 2017 | Wikimedia Foundation |

# OMAN

GII 2018 rank **69**

| Output rank | Input rank | Income | Region | Efficiency ratio | Population (mn) | GDP, PPP$ | GDP per capita, PPP$ | GII 2017 rank |
|---|---|---|---|---|---|---|---|---|
| 75 | 57 | High | NAWA | 92 | 4.6 | 187.9 | 45,156.9 | 77 |

| | | Score/Value | Rank | |
|---|---|---|---|---|
| | **Institutions** | **62.1** | **64** | ◇ |
| 1.1 | Political environment | 61.0 | 47 | ◇ |
| 1.1.1 | Political stability & safety* | 83.2 | 27 | ● |
| 1.1.2 | Government effectiveness* | 49.9 | 57 | ◇ |
| 1.2 | Regulatory environment | 57.8 | 86 | ◇ |
| 1.2.1 | Regulatory quality* | 59.7 | 43 | ◇ |
| 1.2.2 | Rule of law* | 55.8 | 48 | ◇ |
| 1.2.3 | Cost of redundancy dismissal, salary weeks | n/a | n/a | |
| 1.3 | Business environment | 67.6 | 67 | ◇ |
| 1.3.1 | Ease of starting a business* | 92.9 | 28 | ● |
| 1.3.2 | Ease of resolving insolvency* | 42.4 | 87 | ◇ |
| | **Human capital & research** | **40.3** | **39** | ● |
| 2.1 | Education | 53.9 | 44 | |
| 2.1.1 | Expenditure on education, % GDP | 6.2 | 19 | ● |
| 2.1.2 | Government funding/pupil, secondary, % GDP/cap | 34.4 | 8 | ● ◆ |
| 2.1.3 | School life expectancy, years | 14.7 | 57 | ◇ |
| 2.1.4 | PISA scales in reading, maths & science | n/a | n/a | |
| 2.1.5 | Pupil-teacher ratio, secondary | n/a | n/a | |
| 2.2 | Tertiary education | 62.7 | 4 | ● ◆ |
| 2.2.1 | Tertiary enrolment, % gross | 44.6 | 63 | ◇ |
| 2.2.2 | Graduates in science & engineering, % | 44.8 | 1 | ● ◆ |
| 2.2.3 | Tertiary inbound mobility, % | 2.9 | 62 | ◇ |
| 2.3 | Research & development (R&D) | 4.3 | 82 | ◇ |
| 2.3.1 | Researchers, FTE/mn pop.[d] | 216.0 | 75 | ◇ |
| 2.3.2 | Gross expenditure on R&D, % GDP[d] | 0.2 | 84 | ◇ |
| 2.3.3 | Global R&D companies, top 3, mn US$ | 0.0 | 40 | ○ ◇ |
| 2.3.4 | QS university ranking, average score top 3* | 9.1 | 66 | ◇ |
| | **Infrastructure** | **48.3** | **54** | ◇ |
| 3.1 | Information & communication technologies (ICTs) | 61.4 | 61 | ◇ |
| 3.1.1 | ICT access* | 73.2 | 43 | ◇ |
| 3.1.2 | ICT use* | 57.1 | 50 | ◇ |
| 3.1.3 | Government's online service* | 59.4 | 67 | ◇ |
| 3.1.4 | E-participation* | 55.9 | 74 | ◇ |
| 3.2 | General infrastructure | 54.7 | 14 | ● |
| 3.2.1 | Electricity output, kWh/cap | 7,295.8 | 29 | ● |
| 3.2.2 | Logistics performance* | 54.2 | 47 | |
| 3.2.3 | Gross capital formation, % GDP | 34.0 | 12 | ● ◆ |
| 3.3 | Ecological sustainability | 28.9 | 100 | ◇ |
| 3.3.1 | GDP/unit of energy use | 6.5 | 88 | |
| 3.3.2 | Environmental performance* | 51.3 | 93 | ◇ |
| 3.3.3 | ISO 14001 environmental certificates/bn PPP$ GDP | 1.1 | 63 | |
| | **Market sophistication** | **44.9** | **72** | ◇ |
| 4.1 | Credit | 33.3 | 74 | ◇ |
| 4.1.1 | Ease of getting credit* | 35.0 | 106 | ◇ |
| 4.1.2 | Domestic credit to private sector, % GDP | 75.6 | 41 | ● |
| 4.1.3 | Microfinance gross loans, % GDP | n/a | n/a | |
| 4.2 | Investment | 38.0 | 79 | |
| 4.2.1 | Ease of protecting minority investors* | 46.7 | 101 | ◇ |
| 4.2.2 | Market capitalization, % GDP | 46.9 | 33 | |
| 4.2.3 | Venture capital deals/bn PPP$ GDP | n/a | n/a | |
| 4.3 | Trade, competition, & market scale | 63.4 | 56 | |
| 4.3.1 | Applied tariff rate, weighted mean, % | 1.5 | 18 | ● |
| 4.3.2 | Intensity of local competition† | 60.0 | 105 | ○ ◇ |
| 4.3.3 | Domestic market scale, bn PPP$ | 187.9 | 60 | |

| | | Score/Value | Rank | |
|---|---|---|---|---|
| | **Business sophistication** | **21.5** | **110** | ◇ |
| 5.1 | Knowledge workers | 27.0 | 85 | ◇ |
| 5.1.1 | Knowledge-intensive employment, %[d] | 24.6 | 62 | ◇ |
| 5.1.2 | Firms offering formal training, % firms | n/a | n/a | |
| 5.1.3 | GERD performed by business, % GDP[d] | 0.0 | 72 | ◇ |
| 5.1.4 | GERD financed by business, % | 21.4 | 62 | ◇ |
| 5.1.5 | Females employed w/advanced degrees, % | n/a | n/a | |
| 5.2 | Innovation linkages | 21.7 | 95 | ◇ |
| 5.2.1 | University/industry research collaboration† | 43.4 | 49 | |
| 5.2.2 | State of cluster development† | 45.7 | 67 | |
| 5.2.3 | GERD financed by abroad, %[d] | 0.0 | 100 | ○ ◇ |
| 5.2.4 | JV–strategic alliance deals/bn PPP$ GDP | 0.0 | 38 | ● |
| 5.2.5 | Patent families 2+ offices/bn PPP$ GDP | 0.0 | 103 | ○ |
| 5.3 | Knowledge absorption | 15.7 | 123 | ○ ◇ |
| 5.3.1 | Intellectual property payments, % total trade | n/a | n/a | |
| 5.3.2 | High-tech net imports, % total trade[d] | 4.8 | 112 | ○ ◇ |
| 5.3.3 | ICT services imports, % total trade[d] | 0.3 | 114 | ○ ◇ |
| 5.3.4 | FDI net inflows, % GDP | 0.3 | 119 | ○ |
| 5.3.5 | Research talent, % in business enterprise[d] | 10.6 | 65 | ◇ |
| | **Knowledge & technology outputs** | **16.3** | **97** | ◇ |
| 6.1 | Knowledge creation | 4.2 | 99 | ◇ |
| 6.1.1 | Patents by origin/bn PPP$ GDP | n/a | n/a | |
| 6.1.2 | PCT patents by origin/bn PPP$ GDP | 0.0 | 101 | ○ ◇ |
| 6.1.3 | Utility models by origin/bn PPP$ GDP | n/a | n/a | |
| 6.1.4 | Scientific & technical articles/bn PPP$ GDP | 2.7 | 101 | ◇ |
| 6.1.5 | Citable documents H index | 6.0 | 88 | ◇ |
| 6.2 | Knowledge impact | 28.1 | 93 | ◇ |
| 6.2.1 | Growth rate of PPP$ GDP/worker, % | 0.3 | 72 | |
| 6.2.2 | New businesses/th pop. 15–64 | 2.1 | 48 | |
| 6.2.3 | Computer software spending, % GDP | 0.1 | 98 | ◇ |
| 6.2.4 | ISO 9001 quality certificates/bn PPP$ GDP | 3.1 | 76 | |
| 6.2.5 | High- & medium-high-tech manufactures, % | 0.2 | 60 | |
| 6.3 | Knowledge diffusion | 16.5 | 85 | ◇ |
| 6.3.1 | Intellectual property receipts, % total trade | n/a | n/a | |
| 6.3.2 | High-tech net exports, % total trade[d] | 0.6 | 76 | ◇ |
| 6.3.3 | ICT services exports, % total trade[d] | 0.2 | 113 | ○ |
| 6.3.4 | FDI net outflows, % GDP | 0.9 | 52 | |
| | **Creative outputs** | **28.1** | **65** | ◇ |
| 7.1 | Intangible assets | 51.2 | 33 | ● |
| 7.1.1 | Trademarks by origin/bn PPP$ GDP | n/a | n/a | |
| 7.1.2 | Industrial designs by origin/bn PPP$ GDP | n/a | n/a | |
| 7.1.3 | ICTs & business model creation† | 55.3 | 86 | ◇ |
| 7.1.4 | ICTs & organizational model creation† | 47.0 | 92 | ◇ |
| 7.2 | Creative goods & services | 8.0 | 101 | ◇ |
| 7.2.1 | Cultural & creative services exports, % total trade | n/a | n/a | |
| 7.2.2 | National feature films/mn pop. 15–69[d] | 0.0 | 103 | ○ ◇ |
| 7.2.3 | Entertainment & Media market/th pop. 15–69 | 5.4 | 45 | ◇ |
| 7.2.4 | Printing & other media, % manufacturing | 0.8 | 73 | |
| 7.2.5 | Creative goods exports, % total trade[d] | 0.1 | 98 | ◇ |
| 7.3 | Online creativity | 1.9 | 89 | ◇ |
| 7.3.1 | Generic top-level domains (TLDs)/th pop. 15–69 | 1.8 | 79 | ◇ |
| 7.3.2 | Country-code TLDs/th pop. 15–69 | 0.1 | 109 | ◇ |
| 7.3.3 | Wikipedia edits/mn pop. 15–69[d] | 5.7 | 77 | ◇ |
| 7.3.4 | Mobile app creation/bn PPP$ GDP | n/a | n/a | |

**NOTES:** ● indicates a strength; ○ a weakness; ◆ an income group strength; ◇ an income group weakness; * an index; † a survey question.
[d] indicates that the country's data are older than the base year; see Appendix II for details, including the year of the data, at http://globalinnovationindex.org.
Square brackets indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level; see page 75 of this appendix for details.