### Output Rank

<table>
<thead>
<tr>
<th>Output rank</th>
<th>Input rank</th>
<th>Income</th>
<th>Population (mn)</th>
<th>GDP, PPP$</th>
<th>GDP per capita, PPP$</th>
</tr>
</thead>
<tbody>
<tr>
<td>79</td>
<td>73</td>
<td>High</td>
<td>NAWA</td>
<td>4.2</td>
<td>312.1</td>
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<td>60</td>
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### Institutions

<table>
<thead>
<tr>
<th>Score/Value Rank</th>
<th>Score/Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>56.7 88</td>
<td></td>
</tr>
</tbody>
</table>

#### 1.1 Political Environment
- Political and operational stability
- Government effectiveness

#### 1.2 Regulatory Environment
- Regulatory quality
- Rule of law
- Cost of redundancy dismissal, salary weeks

#### 1.3 Business Environment
- Ease of starting a business
- Ease of resolving insolvency

### Human Capital & Research

<table>
<thead>
<tr>
<th>Score/Value Rank</th>
<th>Score/Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.0 [63]</td>
<td></td>
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</tbody>
</table>

#### 2.1 Education
- Expenditure on education, % GDP
- Government funding/pupil, secondary, % GDP/cap.
- School life expectancy, years

#### 2.2 Tertiary Education
- Graduates in science & engineering, %
- Tertiary in-mobility, %

#### 2.3 Research & Development (R&D)
- Researchers, FTE/mn pop
- Global R&D companies, avg. exp. top 3, mn $US
- QS university ranking, average score top 3

### Infrastructure

<table>
<thead>
<tr>
<th>Score/Value Rank</th>
<th>Score/Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>44.7 55</td>
<td></td>
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</tbody>
</table>

#### 3.1 Information & Communication Technologies (ICTs)
- ICT access
- ICT use
- Government’s online service

#### 3.2 General Infrastructure
- Electricity output, kWh/mn pop
- Logistics performance
- Gross capital formation, % GDP

#### 3.3 Ecological Sustainability
- GDP/unit of energy use
- Environmental performance
- ISO 14001 environmental certificate/bn PPP$ GDP

### Market Sophistication

<table>
<thead>
<tr>
<th>Score/Value Rank</th>
<th>Score/Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>45.3 81</td>
<td></td>
</tr>
</tbody>
</table>

#### 4.1 Credit
- Ease of getting credit
- Domestic credit to private sector, % GDP
- Microfinance gross loans, % GDP

#### 4.2 Investment
- Ease of protecting minority investors
- Market capitalization, % GDP
- Venture capital deal/bn PPP$ GDP

#### 4.3 Trade, Competition, and Market Scale
- Applied tariff rate, weighted avg.
- Intensity of local competition
- Domestic market scale, bn PPP$

### Business Sophistication

<table>
<thead>
<tr>
<th>Score/Value Rank</th>
<th>Score/Value</th>
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</thead>
<tbody>
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</tbody>
</table>

#### 5.1 Knowledge Workers
- Knowledge workers

#### 5.2 Innovation Linkages
- University-industry research collaboration

#### 5.3 Knowledge Absorption
- Intellectual property payments, % total trade
- Creative goods and services

### Knowledge & Technology Outputs

<table>
<thead>
<tr>
<th>Score/Value Rank</th>
<th>Score/Value</th>
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</thead>
<tbody>
<tr>
<td>17.8 73</td>
<td></td>
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</tbody>
</table>

#### 6.1 Knowledge Creation
- Patents by origin/bn PPP$ GDP
- PCT patents by origin/bn PPP$ GDP
- Utility models by origin/bn PPP$ GDP

#### 6.2 Knowledge Impact
- Growth rate of PPP$ GDP/worker
- New businesses/ht pop. 15-64
- Computer software spending, % GDP

#### 6.3 Knowledge Diffusion
- Internet freedom
- ISO 9001 quality certificates/bn PPP$ GDP
- High- and medium-high tech manufacturing, %

### Creative Outputs

<table>
<thead>
<tr>
<th>Score/Value Rank</th>
<th>Score/Value</th>
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</thead>
<tbody>
<tr>
<td>16.5 88</td>
<td></td>
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</tbody>
</table>

#### 7.1 Intangible Assets
- Trademarks by origin/bn PPP$ GDP
- Global brand value, top 50, % GDP
- Industrial designs by origin/bn PPP$ GDP

#### 7.2 Creative Goods and Services
- Cultural & creative services exports, % total trade
- National feature films/ mn pop
- Printing and other media, % manufacturing

#### 7.3 Online Creativity
- Generic top-level domains (TLDs)/ht pop. 15-69
- Country-code TLDs/ht pop. 15-69
- Wikipedia edits/mn pop. 15-69
- Mobile app creation/bn PPP$ GDP

### Notes
- [ ] indicates a strength; ◇ a weakness; * an income group strength; ◇ an income group weakness; * an index; [ ] a survey question
- Indicates that the country’s economy is more modern 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 (ERM) requirements were not met at the sub-pillar or pillar level.