WORLD COMPETITIVENESS RANKING 2019

All data are available from the World Competitiveness Online.

Visit our eShop
BRAZIL

OVERALL PERFORMANCE (63 countries)

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rank</td>
<td>56</td>
<td>57</td>
<td>61</td>
<td>60</td>
<td>59</td>
</tr>
</tbody>
</table>

CHALLENGES IN 2019
- Political articulation to lead pension reforms.
- Productivity gains in the public sector.
- Develop basic infrastructure.
- Digital upskilling.
- Prioritize sustainability.

Provided by:
Fundação Dom Cabral, Innovation and Entrepreneurship Center

BASIC FACTS

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital</td>
<td>Brasília</td>
</tr>
<tr>
<td>Land area (square km '000)</td>
<td>8,516</td>
</tr>
<tr>
<td>Exchange Rate (per $)</td>
<td>3.654</td>
</tr>
<tr>
<td>Population - market size (millions)</td>
<td>209.18</td>
</tr>
<tr>
<td>Gross Domestic Product (GDP) (US$ billions)</td>
<td>1,868.6</td>
</tr>
<tr>
<td>GDP (PPP) per capita (US$)</td>
<td>16,088</td>
</tr>
<tr>
<td>Real GDP growth (%)</td>
<td>1.1</td>
</tr>
<tr>
<td>Consumer price inflation (%)</td>
<td>3.67</td>
</tr>
<tr>
<td>Unemployment rate (%)</td>
<td>14.05</td>
</tr>
<tr>
<td>Labor force (millions)</td>
<td>105.39</td>
</tr>
<tr>
<td>Current account balance (% of GDP)</td>
<td>-0.78</td>
</tr>
<tr>
<td>Direct investment stocks inward ($bn)</td>
<td>778.3</td>
</tr>
<tr>
<td>Direct investment flows inward (% of GDP)</td>
<td>4.73</td>
</tr>
</tbody>
</table>

COMPETITIVENESS LANDSCAPE

PEER GROUPS RANKINGS

THE AMERICAS (9 countries)

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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<th>2019</th>
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<tbody>
<tr>
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<td>8</td>
<td>8</td>
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</table>

POPULATIONS > 20 MILLION (29 countries)

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rank</td>
<td>25</td>
<td>26</td>
<td>28</td>
<td>28</td>
<td>27</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Criteria</th>
<th>WCY 2018</th>
<th>WCY 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.18 Gross fixed capital formation - real growth</td>
<td>0.99</td>
<td>4.13</td>
</tr>
<tr>
<td>1.1.15 Real GDP growth per capita</td>
<td>0.22</td>
<td>0.38</td>
</tr>
<tr>
<td>4.3.07 Total R&amp;D personnel per capita</td>
<td>0.97</td>
<td>1.71</td>
</tr>
<tr>
<td>2.4.14 Start-up days</td>
<td>79.5</td>
<td>20.5</td>
</tr>
<tr>
<td>2.1.09 Public finances</td>
<td>1.40</td>
<td>2.25</td>
</tr>
<tr>
<td>2.3.11 Transparency</td>
<td>1.81</td>
<td>2.84</td>
</tr>
<tr>
<td>2.3.13 Bribery and corruption</td>
<td>0.71</td>
<td>1.08</td>
</tr>
<tr>
<td>4.3.10 Researchers in R&amp;D per capita</td>
<td>0.6</td>
<td>0.9</td>
</tr>
<tr>
<td>2.5.04 Risk of political instability</td>
<td>2.80</td>
<td>3.56</td>
</tr>
<tr>
<td>3.5.05 Need for economic and social reforms</td>
<td>3.31</td>
<td>4.19</td>
</tr>
<tr>
<td>1.2.09 Exports of goods (%)</td>
<td>10.59</td>
<td>12.83</td>
</tr>
<tr>
<td>4.1.16 Energy infrastructure</td>
<td>4.27</td>
<td>5.10</td>
</tr>
<tr>
<td>4.3.20 Scientific research legislation</td>
<td>3.11</td>
<td>3.70</td>
</tr>
<tr>
<td>3.2.04 Remuneration of management</td>
<td>123,050</td>
<td>100,107</td>
</tr>
<tr>
<td>2.1.10 Tax evasion</td>
<td>3.37</td>
<td>3.97</td>
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</table>

### DECLINES

<table>
<thead>
<tr>
<th>Criteria</th>
<th>WCY 2018</th>
<th>WCY 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2.02 Current account balance</td>
<td>-0.47</td>
<td>-0.78</td>
</tr>
<tr>
<td>2.3.08 Exchange rate stability</td>
<td>0.049</td>
<td>0.066</td>
</tr>
<tr>
<td>2.4.02 Protectionism</td>
<td>4.15</td>
<td>2.99</td>
</tr>
<tr>
<td>3.2.21 Brain drain</td>
<td>4.36</td>
<td>3.35</td>
</tr>
<tr>
<td>3.2.22 Foreign highly-skilled personnel</td>
<td>3.77</td>
<td>3.06</td>
</tr>
<tr>
<td>2.3.02 Cost of capital</td>
<td>2.31</td>
<td>1.94</td>
</tr>
<tr>
<td>1.2.25 Tourism receipts</td>
<td>0.34</td>
<td>0.28</td>
</tr>
<tr>
<td>1.2.18 Export concentration by product</td>
<td>40.4</td>
<td>46.3</td>
</tr>
<tr>
<td>2.4.08 Subsidies</td>
<td>3.73</td>
<td>3.19</td>
</tr>
<tr>
<td>3.2.18 Skilled labor</td>
<td>4.06</td>
<td>3.50</td>
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<tr>
<td>2.4.16 Labor regulations</td>
<td>2.88</td>
<td>2.52</td>
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<tr>
<td>4.4.26 Pollution problems</td>
<td>4.38</td>
<td>3.86</td>
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<tr>
<td>2.5.01 Justice</td>
<td>3.38</td>
<td>2.98</td>
</tr>
<tr>
<td>3.2.24 Competent senior managers</td>
<td>4.56</td>
<td>4.03</td>
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<tr>
<td>2.3.12 Bureaucracy</td>
<td>0.89</td>
<td>0.79</td>
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</tbody>
</table>

### 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.
WORLD COMPETITIVENESS DIGITAL RANKING 2019

All data are available from the World Competitiveness Online.

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DIGITAL TRENDS - OVERALL

BRAZIL

OVERALL PERFORMANCE (63 countries)

Overall Factors Sub-Factors

Knowledge

61

Talent

59

Training & education

44

Scientific concentration

Technology

57

Regulatory framework

61

Capital

47

Technological framework

Future readiness

33

Adaptive attitudes

58

Business agility

49

IT integration

The direction of the triangle indicates the performance change from the last year:

△ improved or stable

▼ declined

OVERALL & FACTORS - 5 years

<table>
<thead>
<tr>
<th>OVERALL &amp; FACTORS - 5 years</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
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<tbody>
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<tr>
<td>Knowledge</td>
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<td>55</td>
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<td>59</td>
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<tr>
<td>Technology</td>
<td>55</td>
<td>54</td>
<td>55</td>
<td>55</td>
<td>57</td>
</tr>
<tr>
<td>Future readiness</td>
<td>51</td>
<td>49</td>
<td>44</td>
<td>47</td>
<td>43</td>
</tr>
</tbody>
</table>

COMPETITIVENESS & DIGITAL RANKINGS

N.B. This graph provides only a comparison of the country's performance in the two rankings.

PEER GROUPS RANKINGS

THE AMERICAS (9 countries)

2015 2016 2017 2018 2019

6 5 5 6 5

POPULATIONS > 20 MILLION (29 countries)

2015 2016 2017 2018 2019

23 22 23 24 24
### KNOWLEDGE

<table>
<thead>
<tr>
<th>Subfactors</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
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</thead>
<tbody>
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<td>Talent</td>
<td>60</td>
<td>59</td>
<td>60</td>
<td>61</td>
<td>61</td>
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<tr>
<td>Training &amp; education</td>
<td>52</td>
<td>49</td>
<td>48</td>
<td>57</td>
<td>59</td>
</tr>
<tr>
<td>Scientific concentration</td>
<td>40</td>
<td>43</td>
<td>44</td>
<td>54</td>
<td>44</td>
</tr>
</tbody>
</table>

#### Talent
- Educational assessment PISA - Math: 56
- International experience: 58
- Foreign highly-skilled personnel: 58
- Management of cities: 60
- Digital/Technological skills: 62
- Net flow of international students: 38

#### Training & education
- Employee training: 53
- Total public expenditure on education: 8
- Higher education achievement: 57
- Pupil-teacher ratio (tertiary education): 48
- Graduates in Sciences: 56
- Women with degrees: 51

#### Scientific concentration
- Total expenditure on R&D (%): 30
- Total R&D personnel per capita: 44
- Female researchers: 51
- R&D productivity by publication: 8
- Scientific and technical employment: -
- High-tech patent grants: 46
- Robots in Education and R&D: 14

### TECHNOLOGY

<table>
<thead>
<tr>
<th>Subfactors</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulatory framework</td>
<td>57</td>
<td>58</td>
<td>60</td>
<td>59</td>
<td>57</td>
</tr>
<tr>
<td>Capital</td>
<td>55</td>
<td>54</td>
<td>56</td>
<td>56</td>
<td>61</td>
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<tr>
<td>Technological framework</td>
<td>49</td>
<td>47</td>
<td>48</td>
<td>47</td>
<td>47</td>
</tr>
</tbody>
</table>

#### Regulatory framework
- Starting a business: 60
- Enforcing contracts: 36
- Immigration laws: 46
- Development and application of technology: 59
- Scientific research legislation: 60
- Intellectual property rights: 57

#### Capital
- IT & media stock market capitalization: 44
- Funding for technological development: 59
- Banking and financial services: 58
- Country credit rating: 56
- Venture capital: 55
- Investment in Telecommunications: 39

#### Technological framework
- Communications technology: 61
- Mobile Broadband subscribers: 27
- Wireless broadband: 33
- Internet users: 46
- Internet bandwidth speed: 52
- High-tech exports (%): 30

### FUTURE READINESS

<table>
<thead>
<tr>
<th>Subfactors</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptive attitudes</td>
<td>43</td>
<td>44</td>
<td>45</td>
<td>38</td>
<td>33</td>
</tr>
<tr>
<td>Business agility</td>
<td>54</td>
<td>51</td>
<td>46</td>
<td>52</td>
<td>58</td>
</tr>
<tr>
<td>IT integration</td>
<td>51</td>
<td>48</td>
<td>49</td>
<td>51</td>
<td>49</td>
</tr>
</tbody>
</table>

#### Adaptive attitudes
- E-Participation: 12
- Internet retailing: 42
- Tablet possession: 48
- Smartphone possession: 28
- Attitudes toward globalization: 47

#### Business agility
- Opportunities and threats: 50
- World robots distribution: 19
- Agility of companies: 57
- Use of big data and analytics: 60
- Knowledge transfer: 59

#### IT integration
- E-Government: 37
- Public-private partnerships: 58
- Cyber security: 58
- Software piracy: 36
2019 release: 19th November

WORLD TALENT RANKING 2018

All data are available from the World Competitiveness Online.

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BRAZIL

OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year: 
△ improved or stable
▼ declined

Investment & Development

- Total public expenditure on education Percentage of GDP: 6.2 %, 2018 Rank 10
- Government expenditure on education per studPercentage of GDP per capita (secondary education): 21.6 %, 2018 Rank 30
- Pupil-teacher ratio (primary education) Ratio of students to teaching staff: 24.79 ratio, 2018 Rank 57
- Pupil-teacher ratio (secondary education) Ratio of students to teaching staff: 24.40 ratio, 2018 Rank 57
- Apprenticeships are sufficiently implemented: 4.50 Survey [0..10], 2018 Rank 37
- Employee training is a high priority in companies: 5.02 Survey [0..10], 2018 Rank 51
- Female labor force Percentage of total labor force: 44.50 %, 2018 Rank 39
- Health infrastructure meets the needs of society: 1.99 Survey [0..10], 2018 Rank 62

Appeal

- Cost-of-living index Index of a basket of goods & services in the main city, including housing (New York City = 100): 86.30 index, 2018 Rank 48
- Attracting and retaining talents is a priority in companies: 6.06 Survey [0..10], 2018 Rank 48
- Worker motivation in companies is high: 5.04 Survey [0..10], 2018 Rank 50
- Brain drain (well-educated and skilled people) does not hinder competitiveness in your economy: 4.36 Survey [0..10], 2018 Rank 39
- Quality of life is high: 3.90 Survey [0..10], 2018 Rank 58
- Foreign highly-skilled personnel are attracted to your country’s business environment: 3.77 Survey [0..10], 2018 Rank 52
- Remuneration in services professions Gross annual income including supplements such as bonuses, US$: 17.117 US$, 2018 Rank 38
- Remuneration of management Total base salary plus bonuses and long-term incentives, US$: 123,050 US$, 2018 Rank 42
- Effective personal income tax rate Percentage of an income equal to GDP per capita: 8.47 %, 2018 Rank 11
- Personal security and private property rights are adequately protected: 3.63 Survey [0..10], 2018 Rank 59

Readiness

- Labor force growth Percentage change: 1.97 %, 2018 Rank 16
- Skilled labor is readily available: 4.06 Survey [0..10], 2018 Rank 52
- Finance skills are readily available: 4.79 Survey [0..10], 2018 Rank 58
- International experience of senior managers is generally significant: 4.66 Survey [0..10], 2018 Rank 53
- Competent senior managers are readily available: 4.56 Survey [0..10], 2018 Rank 52
- Educational system The educational system meets the needs of a competitive economy: 2.27 Survey [0..10], 2018 Rank 62
- Science in schools is sufficiently emphasized: 2.20 Survey [0..10], 2018 Rank 63
- University education meets the needs of a competitive economy: 3.46 Survey [0..10], 2018 Rank 58
- Management education meets the needs of the business community: 4.02 Survey [0..10], 2018 Rank 58
- Language skills are meeting the needs of enterprises: 2.89 Survey [0..10], 2018 Rank 63
- Student mobility inbound Foreign tertiary-level students per 1000 inhabitants: 0.10 number, 2018 Rank 57
- Educational assessment - PISA PISA survey of 15-year olds: 389 Average, 2018 Rank 56
IMD is ranked 1st in open programs worldwide - 8 years in a row.
Financial Times 2012 - 2019

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Transforming organizations
Impacting your future

FURTHER INFORMATION
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