



# COUNTRY PROFILE

# CZECH REPUBLIC



# CZECH REPUBLIC

## OVERALL PERFORMANCE (63 countries)



### CHALLENGES IN 2019

- Development of global economy and German economy in particular.
- Finding way of accelerating construction of transportation and energy infrastructure.
- Maintaining sound level of public debt despite prospective economic slowdown.
- Introduction of new technology as a solution to labour shortage.
- Debating key legislative proposals on class actions and sectoral taxation.

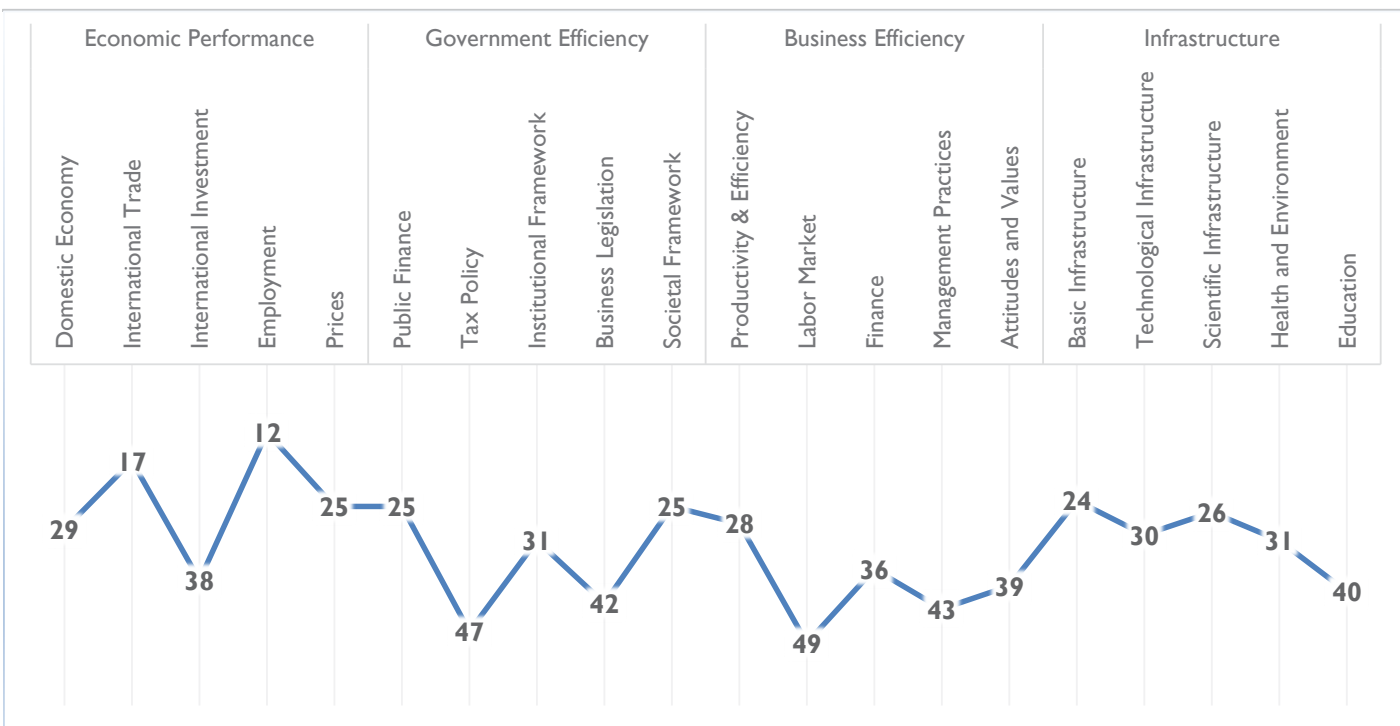
### Provided by:

Consumer Forum (Spotřebitelské fórum)

## BASIC FACTS

|  | Prague                 | Rank |
|--|------------------------|------|
| Capital                                      | Prague                 |      |
| Land area (square km '000)                   | 79 <sup>2018</sup>     |      |
| Exchange Rate (per \$)                       | 21.730 <sup>2018</sup> |      |
| Population - market size (millions)          | 10.63 <sup>2018</sup>  | 36   |
| Gross Domestic Product (GDP) (US\$ billions) | 245.1 <sup>2018</sup>  | 41   |
| GDP (PPP) per capita (US\$)                  | 37,249 <sup>2018</sup> | 31   |
| Real GDP growth (%)                          | 3.0 <sup>2018</sup>    | 26   |
| Consumer price inflation (%)                 | 2.16 <sup>2018</sup>   | 31   |
| Unemployment rate (%)                        | 2.23 <sup>2018</sup>   | 4    |
| Labor force (millions)                       | 5.42 <sup>2018</sup>   | 36   |
| Current account balance (% of GDP)           | 0.34 <sup>2018</sup>   | 35   |
| Direct investment stocks inward (\$bn)       | 153.5 <sup>2017</sup>  | 33   |
| Direct investment flows inward (% of GDP)    | 3.47 <sup>2018</sup>   | 15   |

## COMPETITIVENESS LANDSCAPE



## PEER GROUPS RANKINGS

### EUROPE - MIDDLE EAST - AFRICA (40 countries)



### POPULATIONS < 20 MILLION (34 countries)



## CZECH REPUBLIC

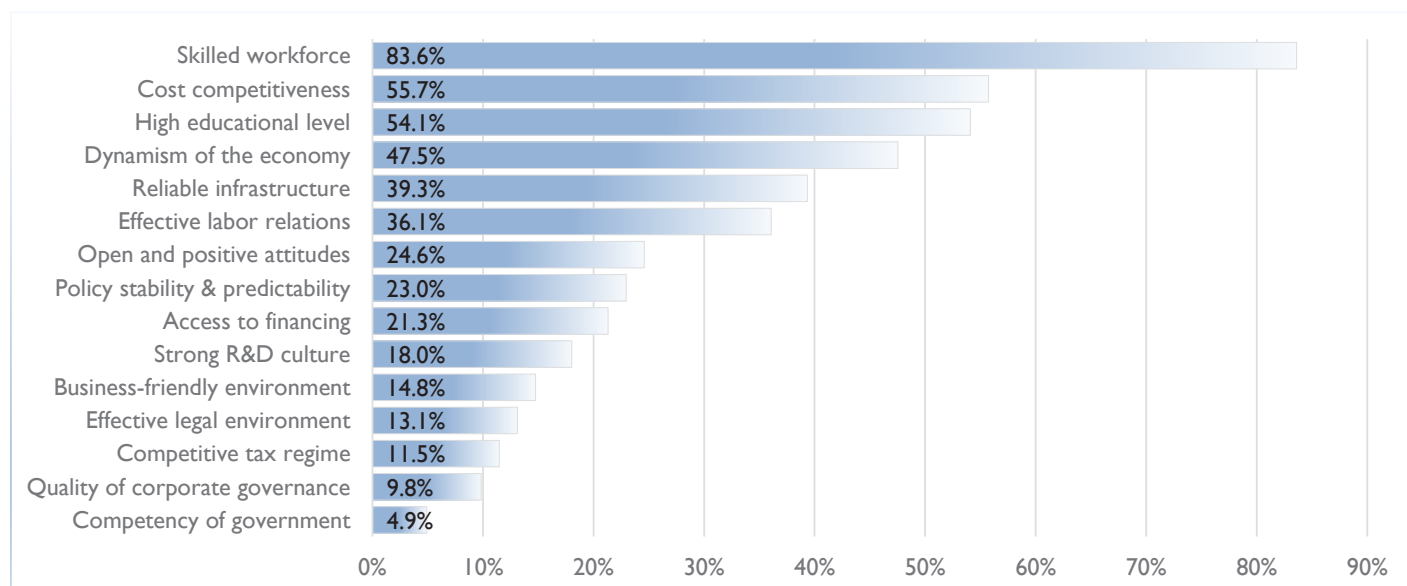
## COMPETITIVENESS EVOLUTION

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    | WCY    | DECLINES                                     | WCY    | WCY    |
|--|--------|--------|--|--------|--------|
|  | 2018   | 2019   |  | 2018   | 2019   |
| 4.3.18 Number of patents in force                  | 28.7   | 68.0   | 2.4.14 Start-up days                         | 9.0    | 24.5   |
| 1.1.18 Gross fixed capital formation - real growth | 5.86   | 10.40  | 2.3.08 Exchange rate stability               | 0.058  | 0.094  |
| 4.1.07 Population - growth                         | 0.23   | 0.36   | 1.2.02 Current account balance               | 0.88   | 0.34   |
| 2.4.18 Immigration laws                            | 4.15   | 5.87   | 2.1.02 Government budget surplus/deficit (%) | 1.59   | 0.89   |
| 1.4.08 Long-term unemployment                      | 1.00   | 0.70   | 1.1.15 Real GDP growth per capita            | 4.36   | 2.63   |
| 4.5.01 Total public expenditure on education       | 3.6    | 4.6    | 1.1.14 Real GDP growth                       | 4.6    | 3.0    |
| 1.4.07 Unemployment rate                           | 2.89   | 2.23   | 2.3.12 Bureaucracy                           | 3.65   | 2.52   |
| 2.5.02 Homicide                                    | 0.7    | 0.6    | 3.2.03 Remuneration in services professions  | 12,607 | 15,563 |
| 3.4.07 Use of big data and analytics               | 4.23   | 4.90   | 2.4.11 Parallel economy                      | 6.19   | 4.97   |
| 1.4.09 Youth unemployment                          | 7.90   | 6.73   | 1.5.02 Cost-of-living index                  | 65.80  | 78.10  |
| 3.2.18 Skilled labor                               | 3.14   | 3.58   | 2.1.09 Public finances                       | 5.04   | 4.13   |
| 1.1.20 GDP per capita                              | 20,449 | 23,058 | 2.2.12 Real personal taxes                   | 5.92   | 4.87   |
| 3.3.08 Stock markets                               | 4.31   | 4.84   | 2.3.02 Cost of capital                       | 7.08   | 5.87   |
| 1.2.12 Exports of commercial services (\$bn)       | 23.74  | 26.66  | 2.4.08 Subsidies                             | 4.16   | 3.45   |
| 1.2.08 Exports of goods (\$bn)                     | 180.13 | 202.20 | 3.3.06 Banking and financial services        | 7.08   | 5.90   |

## 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.



# CZECH REPUBLIC

## ECONOMIC PERFORMANCE



| Sub-Factor Rankings :    | 2018 | 2019 |
|--------------------------|------|------|
| Domestic Economy         | 35   | 29   |
| International Trade      | 20   | 17   |
| International Investment | 32   | 38   |
| Employment               | 16   | 12   |
| Prices                   | 17   | 25   |

## GOVERNMENT EFFICIENCY



| Sub-Factor Rankings :   | 2018 | 2019 |
|-------------------------|------|------|
| Public Finance          | 14   | 25   |
| Tax Policy              | 41   | 47   |
| Institutional Framework | 27   | 31   |
| Business Legislation    | 34   | 42   |
| Societal Framework      | 25   | 25   |

## BUSINESS EFFICIENCY



| Sub-Factor Rankings :     | 2018 | 2019 |
|---------------------------|------|------|
| Productivity & Efficiency | 20   | 28   |
| Labor Market              | 36   | 49   |
| Finance                   | 30   | 36   |
| Management Practices      | 35   | 43   |
| Attitudes and Values      | 45   | 39   |

## INFRASTRUCTURE



| Sub-Factor Rankings :        | 2018 | 2019 |
|------------------------------|------|------|
| Basic Infrastructure         | 25   | 24   |
| Technological Infrastructure | 26   | 30   |
| Scientific Infrastructure    | 26   | 26   |
| Health and Environment       | 30   | 31   |
| Education                    | 39   | 40   |



## CZECH REPUBLIC

## STRENGTHS

| Economic Performance                               | Rank |
|--|------|
| 1.4.07 Unemployment rate                           | 4    |
| 1.2.09 Exports of goods (%)                        | 6    |
| 1.4.09 Youth unemployment                          | 7    |
| 1.1.09 Gross fixed capital formation (%)           | 9    |
| 1.1.18 Gross fixed capital formation - real growth | 10   |
| 1.2.23 Trade to GDP ratio                          | 10   |
| 1.4.08 Long-term unemployment                      | 12   |
| 1.3.08 Direct investment stocks inward (% of GDP)  | 15   |
| 1.3.06 Direct investment flows inward (% of GDP)   | 15   |
| 1.5.04 Office rent                                 | 19   |

| Government Efficiency                        | Rank |
|--|------|
| 2.5.06 Gini coefficient                      | 4    |
| 2.3.07 Foreign currency reserves per capita  | 7    |
| 2.5.02 Homicide                              | 11   |
| 2.2.08 Corporate tax rate on profit          | 12   |
| 2.1.02 Government budget surplus/deficit (%) | 13   |
| 2.1.04 Total general government debt (%)     | 14   |
| 2.4.01 Tariff barriers                       | 14   |
| 2.4.09 State ownership of enterprises        | 16   |
| 2.3.14 Rule of law                           | 17   |
| 2.4.04 Foreign investors                     | 20   |

| Business Efficiency                          | Rank |
|--|------|
| 3.2.04 Remuneration of management            | 20   |
| 3.1.07 Workforce productivity                | 21   |
| 3.2.03 Remuneration in services professions  | 23   |
| 3.3.19 Corporate debt                        | 24   |
| 3.2.12 Labor force (%)                       | 26   |
| 3.1.09 Small and medium-size enterprises     | 27   |
| 3.1.10 Use of digital tools and technologies | 29   |
| 3.5.07 Value system                          | 31   |
| 3.3.17 Venture capital                       | 31   |
| 3.2.01 Compensation levels                   | 32   |

| Infrastructure                                   | Rank |
|--|------|
| 4.3.19 Medium- and high-tech value added         | 11   |
| 4.4.09 Medical assistance                        | 14   |
| 4.5.03 Gov. expenditure on education per student | 15   |
| 4.2.02 Mobile Broadband subscribers              | 17   |
| 4.3.07 Total R&D personnel per capita            | 17   |
| 4.2.17 ICT service exports                       | 17   |
| 4.5.10 Student mobility inbound                  | 17   |
| 4.1.16 Energy infrastructure                     | 18   |
| 4.3.05 Business expenditure on R&D (%)           | 20   |
| 4.3.02 Total expenditure on R&D (%)              | 21   |

## WEAKNESSES

| Economic Performance                              | Rank |
|---|------|
| 1.3.04 Direct investment stocks abroad (% of GDP) | 48   |
| 1.3.03 Direct investment stocks abroad (\$bn)     | 47   |
| 1.2.17 Export concentration by partner            | 43   |
| 1.3.13 Relocation threats of business             | 40   |
| 1.2.12 Exports of commercial services (\$bn)      | 38   |
| 1.1.19 Resilience of the economy                  | 38   |
| 1.5.06 Gasoline prices                            | 35   |
| 1.2.02 Current account balance                    | 35   |
| 1.1.20 GDP per capita                             | 33   |
| 1.3.07 Direct investment stocks inward (\$bn)     | 33   |

| Government Efficiency                               | Rank |
|---|------|
| 2.2.11 Employer's social security contribution rate | 59   |
| 2.4.08 Subsidies                                    | 58   |
| 2.3.08 Exchange rate stability                      | 58   |
| 2.4.14 Start-up days                                | 56   |
| 2.4.07 Government subsidies                         | 53   |
| 2.1.11 Pension funding                              | 53   |
| 2.4.13 Creation of firms                            | 50   |
| 2.2.01 Collected total tax revenues                 | 47   |
| 2.4.15 Start-up procedures                          | 47   |
| 2.4.10 Competition legislation                      | 46   |

| Business Efficiency                    | Rank |
|--|------|
| 3.2.09 Apprenticeships                 | 57   |
| 3.3.10 Stock market capitalization (%) | 56   |
| 3.2.18 Skilled labor                   | 56   |
| 3.2.24 Competent senior managers       | 53   |
| 3.2.19 Finance skills                  | 51   |
| 3.2.23 International experience        | 51   |
| 3.5.03 National culture                | 50   |
| 3.4.04 Credibility of managers         | 48   |
| 3.4.08 Customer satisfaction           | 47   |
| 3.4.10 Social responsibility           | 44   |

| Infrastructure                                   | Rank |
|--|------|
| 4.2.11 Qualified engineers                       | 56   |
| 4.3.22 Knowledge transfer                        | 51   |
| 4.5.05 Pupil-teacher ratio (primary education)   | 50   |
| 4.2.12 Public-private partnerships               | 49   |
| 4.2.04 Communications technology                 | 48   |
| 4.1.10 Dependency ratio                          | 45   |
| 4.2.13 Development and application of technology | 44   |
| 4.1.07 Population - growth                       | 43   |
| 4.5.16 Management education                      | 43   |
| 4.5.09 Women with degrees                        | 42   |

# CZECH REPUBLIC

## I · Economic Performance

| I.1 · Domestic Economy   | Value  | Average | Rank | Year |
|--|--------|---------|------|------|
| I.1.00 · Exchange Rate   | 21.730 | 74.055  |      | 2018 |
| National currency per US\$ (average)                             |        |         |      |      |
| I.1.01 · Gross Domestic Product (GDP)                            | 245.1  | 1,264.8 | 41   | 2018 |
| US\$ billions  |        |         |      |      |
| I.1.02 · GDP (PPP)   | 395.9  | 1,903.1 | 39   | 2018 |
| Estimates ; US\$ billions at purchasing power parity             |        |         |      |      |
| I.1.03 · World GDP contribution                                  | 0.29   | 1.49    | 41   | 2018 |
| Percentage share of world GDP in market prices                   |        |         |      |      |
| I.1.04 · Household consumption expenditure (\$bn)                | 115.0  | 697.9   | 47   | 2018 |
| US\$ billions  |        |         |      |      |
| I.1.05 · Household consumption expenditure (%)                   | 46.9   | 55.2    | 52   | 2018 |
| Percentage of GDP  |        |         |      |      |
| I.1.06 · Government consumption expenditure (\$bn)               | 49.1   | 202.1   | 35   | 2018 |
| US\$ billions  |        |         |      |      |
| I.1.07 · Government consumption expenditure (%)                  | 20.0   | 16.7    | 13   | 2018 |
| Percentage of GDP  |        |         |      |      |
| I.1.08 · Gross fixed capital formation (\$bn)                    | 64.0   | 313.1   | 40   | 2018 |
| US\$ billions  |        |         |      |      |
| I.1.09 · Gross fixed capital formation (%)                       | 26.1   | 22.6    | 9    | 2018 |
| Percentage of GDP  |        |         |      |      |
| I.1.10 · Gross domestic savings (\$bn)                           | 81.0   | 343.8   | 36   | 2018 |
| US\$ billions  |        |         |      |      |
| I.1.11 · Gross domestic savings (%)                              | 33.0   | 28.2    | 17   | 2018 |
| Percentage of GDP  |        |         |      |      |
| I.1.12 · Economic sectors  |        |         |      | 2018 |
| Breakdown of the economic sectors, percentage of GDP             |        |         |      |      |
| Economic sectors / Agriculture                                   | 2.2    | 3.7     |      | 2018 |
| Breakdown as a percentage of GDP                                 |        |         |      |      |
| Economic sectors / Industry                                      | 30.6   | 29.5    |      | 2018 |
| Breakdown as a percentage of GDP                                 |        |         |      |      |
| Economic sectors / Services                                      | 67.3   | 66.8    |      | 2018 |
| Breakdown as a percentage of GDP                                 |        |         |      |      |
| I.1.13 · Economic complexity index                               | 1.64   | 0.83    | 9    | 2017 |
| Measures knowledge intensity, by considering exports             |        |         |      |      |
| I.1.14 · Real GDP growth   | 3.0    | 2.7     | 26   | 2018 |
| Percentage change, based on national currency in constant prices |        |         |      |      |
| I.1.15 · Real GDP growth per capita                              | 2.63   | 1.92    | 24   | 2018 |
| Percentage change, based on national currency in constant prices |        |         |      |      |
| I.1.16 · Household consumption expenditure - real growth         | 3.10   | 2.84    | 27   | 2018 |
| Percentage change, based on constant prices.                     |        |         |      |      |
| I.1.17 · Government consumption expenditure - real growth        | 3.00   | 2.23    | 24   | 2018 |
| Percentage change, based on constant prices.                     |        |         |      |      |
| I.1.18 · Gross fixed capital formation - real growth             | 10.40  | 3.83    | 10   | 2018 |
| Percentage change, based on constant prices.                     |        |         |      |      |
| I.1.19 · Resilience of the economy                               | 5.19   | 5.52    | 38   | 2019 |
| Resilience of the economy to economic cycles is strong           |        |         |      |      |
| I.1.20 · GDP per capita  | 23,058 | 30,983  | 33   | 2018 |
| US\$ per capita  |        |         |      |      |
| I.1.21 · GDP (PPP) per capita                                    | 37,249 | 39,972  | 31   | 2018 |
| Estimates; US\$ per capita at purchasing power parity            |        |         |      |      |
| I.1.22 · Forecast: Real GDP growth                               | 2.5    | 2.6     | 32   | 2019 |

| Percentage change, based on national currency in constant prices               |      |           |    |      |
|--|------|-----------|----|------|
| <b>I.1.23 · Forecast: Inflation</b>  | 2.1  | 158,733.1 | 37 | 2019 |
| Percentage change  |      |           |    |      |
| <b>I.1.24 · Forecast: Unemployment</b>   | 2.2  | 6.4       | 4  | 2019 |
| Percentage of total labor force  |      |           |    |      |
| <b>I.1.25 · Forecast: Current account balance</b>                              | 0.3  | 1.3       | 34 | 2019 |
| Percentage of GDP/GNP  |      |           |    |      |
| <b>I.1.99 · Diversification of the economy</b>                                 | 3.85 | 5.17      | 53 | 2018 |
| Diversification of the economy (industries, export markets, etc.) is extensive |      |           |    |      |

## I.2 · International Trade

|   | Value  | Average | Rank | Year |
|---|--------|---------|------|------|
| <b>I.2.01 · Current account balance (\$bn)</b>                      | 0.8    | 8.9     | 31   | 2018 |
| US\$ billions (minus sign = deficit)                                |        |         |      |      |
| <b>I.2.02 · Current account balance</b>                             | 0.34   | 1.87    | 35   | 2018 |
| Percentage of GDP   |        |         |      |      |
| <b>I.2.03 · Balance of trade (\$bn)</b>                             | 18.4   | -2.3    | 20   | 2018 |
| US\$ billions (minus sign = deficit)                                |        |         |      |      |
| <b>I.2.04 · Balance of trade (%)</b>                                | 7.51   | -0.10   | 14   | 2018 |
| Percentage of GDP   |        |         |      |      |
| <b>I.2.05 · Balance of commercial services (\$bn)</b>               | 4.95   | 3.58    | 21   | 2017 |
| US\$ billions (minus sign = deficit)                                |        |         |      |      |
| <b>I.2.06 · Balance of commercial services (%)</b>                  | 2.29   | 2.38    | 25   | 2017 |
| Percentage of GDP   |        |         |      |      |
| <b>I.2.07 · World exports contribution</b>                          | 0.91   | 1.48    | 30   | 2017 |
| Percentage share of world exports (goods and commercial services)   |        |         |      |      |
| <b>I.2.08 · Exports of goods (\$bn)</b>                             | 202.20 | 287.34  | 27   | 2018 |
| US\$ billions   |        |         |      |      |
| <b>I.2.09 · Exports of goods (%)</b>                                | 82.51  | 39.75   | 6    | 2018 |
| Percentage of GDP   |        |         |      |      |
| <b>I.2.10 · Exports of goods per capita</b>                         | 19,026 | 13,041  | 13   | 2018 |
| US\$ per capita   |        |         |      |      |
| <b>I.2.11 · Exports of goods - growth</b>                           | 11.01  | 10.84   | 21   | 2018 |
| Percentage change, based on US\$ values                             |        |         |      |      |
| <b>I.2.12 · Exports of commercial services (\$bn)</b>               | 26.66  | 78.03   | 38   | 2017 |
| US\$ billions   |        |         |      |      |
| <b>I.2.13 · Exports of commercial services (%)</b>                  | 12.33  | 15.50   | 27   | 2017 |
| Percentage of GDP   |        |         |      |      |
| <b>I.2.14 · Exports of commercial services - growth</b>             | 11.60  | 9.51    | 22   | 2017 |
| Percentage change, based on US\$ values                             |        |         |      |      |
| <b>I.2.15 · Exports of goods &amp; commercial services</b>          | 208.80 | 340.78  | 30   | 2017 |
| US\$ billions   |        |         |      |      |
| <b>I.2.16 · Exports breakdown by economic sector</b>                |        |         |      | 2017 |
| Percentage of total exports   |        |         |      |      |
| <b>Exports breakdown by economic sector / Agriculture</b>           | 5.1    | 10.6    |      | 2017 |
| Percentage of total exports   |        |         |      |      |
| <b>Exports breakdown by economic sector / Industry</b>              | 82.2   | 63.4    |      | 2017 |
| Percentage of total exports   |        |         |      |      |
| <b>Exports breakdown by economic sector / Services</b>              | 12.8   | 26.0    |      | 2017 |
| Percentage of total exports   |        |         |      |      |
| <b>I.2.17 · Export concentration by partner</b>                     | 56.8   | 53.1    | 43   | 2017 |
| Exports to top 5 countries, percentage of total exports             |        |         |      |      |
| <b>I.2.18 · Export concentration by product</b>                     | 51.0   | 53.6    | 32   | 2017 |
| Top 5 products, percentage of total exports                         |        |         |      |      |
| <b>I.2.19 · Imports of goods &amp; commercial services (\$bn)</b>   | 185.1  | 337.6   | 32   | 2017 |
| US\$ billions   |        |         |      |      |
| <b>I.2.20 · Imports of goods &amp; commercial services (%)</b>      | 85.6   | 52.1    | 54   | 2017 |
| Percentage of GDP   |        |         |      |      |
| <b>I.2.21 · Imports of goods &amp; commercial services - growth</b> | 13.69  | 10.35   | 41   | 2017 |
| Percentage change, based on US\$ values                             |        |         |      |      |

|   |       |       |    |      |
|---|-------|-------|----|------|
| <b>I.2.22 · Imports breakdown by economic sector</b>      |       |       |    | 2017 |
| Percentage of total imports                               |       |       |    |      |
| <b>Imports breakdown by economic sector / Agriculture</b> | 6.1   | 8.2   |    | 2017 |
| Percentage of total imports                               |       |       |    |      |
| <b>Imports breakdown by economic sector / Industry</b>    | 82.2  | 67.9  |    | 2017 |
| Percentage of total imports                               |       |       |    |      |
| <b>Imports breakdown by economic sector / Services</b>    | 11.7  | 23.9  |    | 2017 |
| Percentage of total imports                               |       |       |    |      |
| <b>I.2.23 · Trade to GDP ratio</b>                        | 91.09 | 53.12 | 10 | 2017 |
| (Exports + Imports) / (2 * GDP)                           |       |       |    |      |
| <b>I.2.24 · Terms of trade index</b>                      | 99.9  | 99.0  | 33 | 2018 |
| Unit value of exports over unit value of imports          |       |       |    |      |
| <b>I.2.25 · Tourism receipts</b>                          | 3.21  | 3.78  | 22 | 2017 |
| International tourism receipts as a percentage of GDP     |       |       |    |      |
| <b>I.2.99 · Exchange rates</b>                            | 5.77  | 5.22  | 22 | 2018 |
| Exchange rates support the competitiveness of enterprises |       |       |    |      |

### I.3 · International Investment

|  | Value  | Average | Rank | Year |
|--|--------|---------|------|------|
| <b>I.3.01 · Direct investment flows abroad (\$bn)</b>                      | 4.39   | 16.70   | 30   | 2018 |
| US\$ billions  |        |         |      |      |
| <b>I.3.02 · Direct investment flows abroad (% of GDP)</b>                  | 1.79   | 1.61    | 22   | 2018 |
| Percentage of GDP  |        |         |      |      |
| <b>I.3.03 · Direct investment stocks abroad (\$bn)</b>                     | 23.7   | 484.2   | 47   | 2017 |
| US\$ billions  |        |         |      |      |
| <b>I.3.04 · Direct investment stocks abroad (% of GDP)</b>                 | 10.94  | 69.51   | 48   | 2017 |
| Percentage of GDP  |        |         |      |      |
| <b>I.3.05 · Direct investment flows inward (\$bn)</b>                      | 8.49   | 18.51   | 32   | 2018 |
| US\$ billions  |        |         |      |      |
| <b>I.3.06 · Direct investment flows inward (% of GDP)</b>                  | 3.47   | 1.72    | 15   | 2018 |
| Percentage of GDP  |        |         |      |      |
| <b>I.3.07 · Direct investment stocks inward (\$bn)</b>                     | 153.5  | 469.5   | 33   | 2017 |
| US\$ billions  |        |         |      |      |
| <b>I.3.08 · Direct investment stocks inward (% of GDP)</b>                 | 70.99  | 85.29   | 15   | 2017 |
| Percentage of GDP  |        |         |      |      |
| <b>I.3.09 · Balance of direct investment flows (\$bn)</b>                  | -4.10  | -1.90   | 38   | 2018 |
| US\$ billions (flows abroad minus flows inward)                            |        |         |      |      |
| <b>I.3.10 · Balance of direct investment flows (%)</b>                     | -1.67  | -0.12   | 38   | 2018 |
| Percentage of GDP (flows abroad minus flows inward)                        |        |         |      |      |
| <b>I.3.11 · Net position in direct investment stocks (\$bn)</b>            | -129.8 | 14.7    | 52   | 2017 |
| US\$ billions (stocks abroad minus stocks inward)                          |        |         |      |      |
| <b>I.3.12 · Net position in direct investment stocks (%)</b>               | -60.04 | -15.79  | 58   | 2017 |
| Percentage of GDP (stocks abroad minus stocks inward)                      |        |         |      |      |
| <b>I.3.13 · Relocation threats of business</b>                             | 5.00   | 5.15    | 40   | 2019 |
| Relocation of business is not a threat to the future of your economy       |        |         |      |      |
| <b>I.3.14 · Portfolio investment assets</b>                                | -0.47  | 25.74   | 54   | 2018 |
| US\$ billions  |        |         |      |      |
| <b>I.3.15 · Portfolio investment liabilities</b>                           | -1.48  | 20.50   | 46   | 2018 |
| US\$ billions  |        |         |      |      |
| <b>I.3.99 · Relocation threats of production</b>                           | 4.78   | 4.90    | 37   | 2018 |
| Relocation of production is not a threat to the future of your economy     |        |         |      |      |
| <b>I.3.99 · Relocation threats of R&amp;D facilities</b>                   | 6.04   | 4.93    | 5    | 2018 |
| Relocation of R&D facilities is not a threat to the future of your economy |        |         |      |      |
| <b>I.3.99 · Relocation threats of services</b>                             | 6.04   | 5.05    | 4    | 2018 |
| Relocation of services is not a threat to the future of your economy       |        |         |      |      |

### I.4 · Employment

|                              | Value | Average | Rank | Year |
|------------------------------|-------|---------|------|------|
| <b>I.4.01 · Employment</b>   | 5.29  | 39.31   | 35   | 2018 |
| Total employment in millions |       |         |      |      |



|  |       |       |    |      |
|--|-------|-------|----|------|
| <b>I.4.02 · Employment (%)</b>   | 49.81 | 47.54 | 23 | 2018 |
| Percentage of population   |       |       |    |      |
| <b>I.4.03 · Employment - growth</b>  | 1.38  | 1.34  | 37 | 2018 |
| Estimates: percentage change   |       |       |    |      |
| <b>I.4.04 · Employment - long-term growth</b>                              | 5.39  | 3.41  | 19 | 2018 |
| Estimates: % of population, percentage change in 4 years                   |       |       |    |      |
| <b>I.4.05 · Employment by sector</b>                                       |       |       |    | 2018 |
| Percentage of total employment   |       |       |    |      |
| <b>Employment by sector / Agriculture</b>                                  | 2.8   | 8.7   |    | 2018 |
| Percentage of total employment   |       |       |    |      |
| <b>Employment by sector / Industry</b>                                     | 38.2  | 23.9  |    | 2018 |
| Percentage of total employment   |       |       |    |      |
| <b>Employment by sector / Services</b>                                     | 59.0  | 67.4  |    | 2018 |
| Percentage of total employment   |       |       |    |      |
| <b>I.4.06 · Employment in the public sector</b>                            | 8.50  | 17.65 | 7  | 2017 |
| Percentage of total employment   |       |       |    |      |
| <b>I.4.07 · Unemployment rate</b>  | 2.23  | 6.57  | 4  | 2018 |
| Percentage of labor force  |       |       |    |      |
| <b>I.4.08 · Long-term unemployment</b>                                     | 0.70  | 2.33  | 12 | 2018 |
| Percentage of labor force  |       |       |    |      |
| <b>I.4.09 · Youth unemployment</b>   | 6.73  | 15.42 | 7  | 2018 |
| Percentage of youth labor force (under the age of 25)                      |       |       |    |      |
| <b>I.4.10 · Youth exclusion</b>  | 6.3   | 12.3  | 11 | 2017 |
| Share of youth population (15-24) not in education, employment or training |       |       |    |      |

## I.5 · Prices

|   | Value | Average   | Rank | Year |
|---|-------|-----------|------|------|
| <b>I.5.01 · Consumer price inflation</b>  | 2.16  | 14,761.73 | 31   | 2018 |
| Average annual rate   |       |           |      |      |
| <b>I.5.02 · Cost-of-living index</b>  | 78.10 | 81.10     | 28   | 2018 |
| Index of a basket of goods & services in the main city, including housing (New York City = 100) |       |           |      |      |
| <b>I.5.03 · Apartment rent</b>  | 948   | 1,525     | 20   | 2018 |
| 3-room apartment monthly rent in major cities, US\$   |       |           |      |      |
| <b>I.5.04 · Office rent</b>   | 356   | 603       | 19   | 2017 |
| Total occupation cost in the main city (US\$/Sq.M. per year)                                    |       |           |      |      |
| <b>I.5.05 · Food costs</b>  | 16.54 | 18.38     | 30   | 2017 |
| Percentage of household final consumption expenditures  |       |           |      |      |
| <b>I.5.06 · Gasoline prices</b>   | 1.48  | 1.29      | 35   | 2018 |
| Premium unleaded gasoline (95 Ron) US\$ per litre   |       |           |      |      |

# CZECH REPUBLIC

## 2 · Government Efficiency

### 2.1 · Public Finance

|  | Value | Average  | Rank | Year |
|--|-------|----------|------|------|
| 2.1.01 · Government budget surplus/deficit (\$bn)                | 2.18  | -35.78   | 11   | 2018 |
| US\$ billions  |       |          |      |      |
| 2.1.02 · Government budget surplus/deficit (%)                   | 0.89  | -1.56    | 13   | 2018 |
| Percentage of GDP  |       |          |      |      |
| 2.1.03 · Total general government debt (\$bn)                    | 79.78 | 1,075.60 | 20   | 2018 |
| US\$ billions  |       |          |      |      |
| 2.1.04 · Total general government debt (%)                       | 32.55 | 59.51    | 14   | 2018 |
| Percentage of GDP  |       |          |      |      |
| 2.1.05 · Total general government debt-real growth               | -3.01 | 4.23     | 9    | 2018 |
| Percentage change, based on national currency in constant prices |       |          |      |      |
| 2.1.06 · Central government domestic debt                        | 26.04 | 38.21    | 22   | 2018 |
| Percentage of GDP  |       |          |      |      |
| 2.1.07 · Central government foreign debt                         | 4.42  | 19.01    | 19   | 2018 |
| Percentage of GDP  |       |          |      |      |
| 2.1.08 · Interest payment (%)                                    | 1.81  | 5.89     | 14   | 2018 |
| Percentage of current revenue                                    |       |          |      |      |
| 2.1.09 · Public finances   | 4.13  | 4.70     | 38   | 2019 |
| Public finances are being efficiently managed                    |       |          |      |      |
| 2.1.10 · Tax evasion   | 5.45  | 4.73     | 24   | 2019 |
| Tax evasion is not a threat to your economy                      |       |          |      |      |
| 2.1.11 · Pension funding   | 2.52  | 4.22     | 53   | 2019 |
| Pension funding is adequately addressed for the future           |       |          |      |      |
| 2.1.12 · General government expenditure                          | 40.6  | 35.1     | 41   | 2018 |
| Percentage of GDP  |       |          |      |      |

### 2.2 · Tax Policy

|  | Value | Average | Rank | Year |
|--|-------|---------|------|------|
| 2.2.01 · Collected total tax revenues  | 34.83 | 27.08   | 47   | 2017 |
| Percentage of GDP  |       |         |      |      |
| 2.2.02 · Collected personal income tax   | 4.04  | 5.89    | 30   | 2017 |
| On profits, income and capital gains, as a percentage of GDP                     |       |         |      |      |
| 2.2.03 · Collected corporate taxes   | 3.70  | 3.04    | 45   | 2017 |
| On profits, income and capital gains, as a percentage of GDP                     |       |         |      |      |
| 2.2.04 · Collected indirect tax revenues   | 11.46 | 9.78    | 41   | 2017 |
| Taxes on goods and services as a percentage of GDP                               |       |         |      |      |
| 2.2.05 · Collected capital and property taxes                                    | 0.47  | 1.39    | 17   | 2017 |
| Percentage of GDP  |       |         |      |      |
| 2.2.06 · Collected social security contribution                                  | 14.98 | 7.12    | 60   | 2017 |
| Compulsory contribution of employees and employers as a percentage of GDP        |       |         |      |      |
| 2.2.07 · Effective personal income tax rate                                      | 22.04 | 16.65   | 42   | 2018 |
| Percentage of an income equal to GDP per capita                                  |       |         |      |      |
| 2.2.08 · Corporate tax rate on profit  | 19.00 | 23.10   | 12   | 2018 |
| Maximum tax rate, calculated on profit before tax                                |       |         |      |      |
| 2.2.09 · Consumption tax rate  | 21.00 | 16.28   | 45   | 2018 |
| Standard rate of VAT/GST   |       |         |      |      |
| 2.2.10 · Employee's social security contribution rate                            | 10.49 | 9.27    | 38   | 2018 |
| Compulsory contribution as a percentage of an income equal to GDP per capita     |       |         |      |      |
| 2.2.11 · Employer's social security contribution rate                            | 32.44 | 16.56   | 59   | 2018 |
| Compulsory contribution as a percentage of an income equal to GDP per capita     |       |         |      |      |
| 2.2.12 · Real personal taxes   | 4.87  | 5.17    | 39   | 2019 |
| Real personal taxes do not discourage people from working or seeking advancement |       |         |      |      |
| 2.2.99 · Real corporate taxes  | 6.86  | 5.34    | 11   | 2018 |

Real corporate taxes do not discourage entrepreneurial activity

## 2.3 · Institutional Framework

|  | Value  | Average | Rank | Year |
|--|--------|---------|------|------|
| <b>2.3.01 · Real short-term interest rate</b>                                    | -1.38  | -1.53   | 22   | 2018 |
| Real discount / bank rate  |        |         |      |      |
| <b>2.3.02 · Cost of capital</b>  | 5.87   | 5.49    | 30   | 2019 |
| Cost of capital encourages business development                                  |        |         |      |      |
| <b>2.3.03 · Interest rate spread</b>   | 3.27   | 3.89    | 37   | 2018 |
| Lending rate minus deposit rate  |        |         |      |      |
| <b>2.3.04 · Country credit rating</b>  | 50.3   | 42.5    | 21   | 2018 |
| Index (0-60) of three country credit ratings: Fitch, Moody's and S&P             |        |         |      |      |
| <b>2.3.05 · Central bank policy</b>  | 6.26   | 6.30    | 39   | 2019 |
| Central bank policy has a positive impact on the economy                         |        |         |      |      |
| <b>2.3.06 · Foreign currency reserves</b>  | 142.51 | 185.59  | 18   | 2018 |
| US\$ billions  |        |         |      |      |
| <b>2.3.07 · Foreign currency reserves per capita</b>                             | 13,410 | 6,963   | 7    | 2018 |
| US\$ per capita  |        |         |      |      |
| <b>2.3.08 · Exchange rate stability</b>  | 0.094  | 0.076   | 58   | 2018 |
| Parity change from national currency to SDR, 2018 / 2016                         |        |         |      |      |
| <b>2.3.09 · Legal and regulatory framework</b>                                   | 4.46   | 5.09    | 39   | 2019 |
| The legal and regulatory framework encourages the competitiveness of enterprises |        |         |      |      |
| <b>2.3.10 · Adaptability of government policy</b>                                | 3.77   | 4.42    | 40   | 2019 |
| Adaptability of government policy to changes in the economy is high              |        |         |      |      |
| <b>2.3.11 · Transparency</b>   | 3.87   | 4.68    | 41   | 2019 |
| Transparency of government policy is satisfactory                                |        |         |      |      |
| <b>2.3.12 · Bureaucracy</b>  | 2.52   | 3.59    | 43   | 2019 |
| Bureaucracy does not hinder business activity                                    |        |         |      |      |
| <b>2.3.13 · Bribery and corruption</b>   | 3.52   | 4.66    | 41   | 2019 |
| Bribery and corruption do not exist  |        |         |      |      |
| <b>2.3.14 · Rule of law</b>  | 0.73   | 0.65    | 17   | 2018 |
| Rule of Law Index  |        |         |      |      |
| <b>2.3.99 · Government decisions</b>   | 4.12   | 4.47    | 40   | 2018 |
| Government decisions are effectively implemented                                 |        |         |      |      |

## 2.4 · Business Legislation

|  | Value | Average | Rank | Year |
|--|-------|---------|------|------|
| <b>2.4.01 · Tariff barriers</b>  | 5.08  | 5.96    | 14   | 2017 |
| Tariffs on imports: Most favored nation simple average rate                      |       |         |      |      |
| <b>2.4.02 · Protectionism</b>  | 6.39  | 5.83    | 25   | 2019 |
| Protectionism of your government does not impair the conduct of your business    |       |         |      |      |
| <b>2.4.03 · Public sector contracts</b>  | 6.23  | 6.06    | 30   | 2019 |
| Public sector contracts are sufficiently open to foreign bidders                 |       |         |      |      |
| <b>2.4.04 · Foreign investors</b>  | 8.00  | 6.93    | 20   | 2019 |
| Foreign investors are free to acquire control in domestic companies              |       |         |      |      |
| <b>2.4.05 · Capital markets</b>  | 7.10  | 6.52    | 26   | 2019 |
| Capital markets (foreign and domestic) are easily accessible                     |       |         |      |      |
| <b>2.4.06 · Investment incentives</b>  | 6.35  | 5.92    | 30   | 2019 |
| Investment incentives are attractive to foreign investors                        |       |         |      |      |
| <b>2.4.07 · Government subsidies</b>   | 2.27  | 1.18    | 53   | 2018 |
| To private and public companies as a percentage of GDP                           |       |         |      |      |
| <b>2.4.08 · Subsidies</b>  | 3.45  | 5.45    | 58   | 2019 |
| Subsidies do not distort fair competition and economic development               |       |         |      |      |
| <b>2.4.09 · State ownership of enterprises</b>                                   | 7.21  | 6.04    | 16   | 2019 |
| State ownership of enterprises is not a threat to business activities            |       |         |      |      |
| <b>2.4.10 · Competition legislation</b>  | 5.06  | 5.77    | 46   | 2019 |
| Competition legislation is efficient in preventing unfair competition            |       |         |      |      |
| <b>2.4.11 · Parallel economy</b>   | 4.97  | 4.94    | 29   | 2019 |
| Parallel (black-market, unrecorded) economy does not impair economic development |       |         |      |      |
| <b>2.4.12 · New business density</b>   | 4.0   | 5.9     | 27   | 2016 |

|  |      |      |    |      |
|--|------|------|----|------|
| Registered new businesses per 1'000 people aged 15-64  |      |      |    |      |
| 2.4.13 · Creation of firms   | 5.06 | 6.46 | 50 | 2019 |
| Creation of firms is supported by legislation  |      |      |    |      |
| 2.4.14 · Start-up days   | 24.5 | 14.9 | 56 | 2018 |
| Number of days to start a business   |      |      |    |      |
| 2.4.15 · Start-up procedures   | 8.0  | 6.0  | 47 | 2018 |
| Number of procedures to start a business   |      |      |    |      |
| 2.4.16 · Labor regulations   | 4.46 | 5.24 | 46 | 2019 |
| Labor regulations (hiring/firing practices, minimum wages, etc.) do not hinder business activities |      |      |    |      |
| 2.4.17 · Unemployment legislation  | 5.06 | 5.01 | 34 | 2019 |
| Unemployment legislation provides an incentive to look for work                                    |      |      |    |      |
| 2.4.18 · Immigration laws  | 5.87 | 5.83 | 33 | 2019 |
| Immigration laws do not prevent your company from employing foreign labor                          |      |      |    |      |
| 2.4.19 · Redundancy costs  | 11.6 | 9.4  | 44 | 2018 |
| Number of weeks of salary  |      |      |    |      |
| 2.4.99 · Customs' authorities  | 6.47 | 5.92 | 31 | 2018 |
| Customs' authorities do facilitate the efficient transit of goods                                  |      |      |    |      |
| 2.4.99 · Ease of doing business  | 3.96 | 5.15 | 47 | 2018 |
| Ease of doing business is supported by regulations   |      |      |    |      |

## 2.5 · Societal Framework

|  | Value | Average | Rank | Year |
|--|-------|---------|------|------|
| 2.5.01 · Justice   | 5.39  | 5.68    | 38   | 2019 |
| Justice is fairly administered   |       |         |      |      |
| 2.5.02 · Homicide  | 0.6   | 4.6     | 11   | 2016 |
| Intentional homicide, rate per 100'000 population                                      |       |         |      |      |
| 2.5.03 · Ageing of population  | 19.3  | 14.3    | 47   | 2018 |
| Population over 65, percentage of total population                                     |       |         |      |      |
| 2.5.04 · Risk of political instability   | 5.64  | 5.79    | 35   | 2019 |
| The risk of political instability is very low  |       |         |      |      |
| 2.5.05 · Social cohesion   | 5.52  | 5.46    | 29   | 2019 |
| Social cohesion is high  |       |         |      |      |
| 2.5.06 · Gini coefficient  | 25.90 | 35.20   | 4    | 2017 |
| Equal distribution of income scale: 0 (absolute equality) to 100 (absolute inequality) |       |         |      |      |
| 2.5.07 · Income distribution - lowest 10%  | 4.10  | 2.73    |      | 2016 |
| Percentage of household incomes going to lowest 10% of households                      |       |         |      |      |
| 2.5.08 · Income distribution - highest 10%   | 21.60 | 26.89   |      | 2016 |
| Percentage of household incomes going to highest 10% of households                     |       |         |      |      |
| 2.5.09 · Income share held by lowest 60% - growth                                      | 0.00  | 0.28    | 29   | 2015 |
| Percentage change of household incomes going to lowest 60% of households               |       |         |      |      |
| 2.5.10 · Equal opportunity   | 5.68  | 6.06    | 43   | 2019 |
| Equal opportunity legislation in your economy encourages economic development          |       |         |      |      |
| 2.5.11 · Females in parliament   | 21.10 | 25.22   | 38   | 2017 |
| Percentage of total seats in Parliament  |       |         |      |      |
| 2.5.12 · Unemployment rate - gender ratio  | 1.56  | 1.38    | 52   | 2018 |
| Difference between the female and male unemployment rates                              |       |         |      |      |
| 2.5.13 · Gender inequality   | 0.124 | 0.189   | 31   | 2017 |
| Gender Inequality Index (UNDP)   |       |         |      |      |
| 2.5.14 · Disposable Income   | 79.4  | 71.1    | 21   | 2018 |
| Female / male ratio  |       |         |      |      |
| 2.5.99 · Ageing of society   | 3.85  | 4.54    | 39   | 2018 |
| Ageing of society is not a burden for economic development                             |       |         |      |      |
| 2.5.99 · Personal security and private property rights                                 | 7.65  | 6.67    | 27   | 2018 |
| Personal security and private property rights are adequately protected                 |       |         |      |      |

# CZECH REPUBLIC

## 3 · Business Efficiency

### 3.1 · Productivity & Efficiency

|  | Value  | Average | Rank | Year |
|--|--------|---------|------|------|
| 3.1.01 · Overall productivity (PPP)  | 71,003 | 79,104  | 36   | 2018 |
| Estimates: GDP (PPP) per person employed, US\$   |        |         |      |      |
| 3.1.02 · Overall productivity (PPP) - real growth                                      | 2.01   | 1.36    | 27   | 2018 |
| Estimates: Percentage change of GDP (PPP) per person employed                          |        |         |      |      |
| 3.1.03 · Labor productivity (PPP)  | 39.71  | 44.82   | 33   | 2018 |
| Estimates: GDP (PPP) per person employed per hour, US\$                                |        |         |      |      |
| 3.1.04 · Agricultural productivity (PPP)   | 57,043 | 49,157  | 21   | 2018 |
| Estimates: Related GDP (PPP) per person employed in agriculture, US\$                  |        |         |      |      |
| 3.1.05 · Productivity in industry (PPP)  | 59,880 | 100,569 | 50   | 2018 |
| Estimates: Related GDP (PPP) per person employed in industry, US\$                     |        |         |      |      |
| 3.1.06 · Productivity in services (PPP)  | 85,404 | 78,649  | 26   | 2018 |
| Estimates: Related GDP (PPP) per person employed in services, US\$                     |        |         |      |      |
| 3.1.07 · Workforce productivity  | 6.81   | 6.14    | 21   | 2019 |
| Workforce productivity is competitive by international standards                       |        |         |      |      |
| 3.1.08 · Large corporations  | 6.42   | 6.69    | 42   | 2019 |
| Large corporations are efficient by international standards                            |        |         |      |      |
| 3.1.09 · Small and medium-size enterprises   | 6.45   | 6.03    | 27   | 2019 |
| Small and medium-size enterprises are efficient by international standards             |        |         |      |      |
| 3.1.10 · Use of digital tools and technologies   | 6.19   | 6.07    | 29   | 2019 |
| Companies are very good at using digital tools and technologies to improve performance |        |         |      |      |

### 3.2 · Labor Market

|   | Value   | Average | Rank | Year |
|---|---------|---------|------|------|
| 3.2.01 · Compensation levels  | 8.38    | 13.64   | 32   | 2018 |
| Total hourly compensation in manufacturing (wages + supplementary benefits), US\$ |         |         |      |      |
| 3.2.02 · Unit labor costs for total economy                                       | 6.26    | 2.23    | 47   | 2018 |
| Percentage change   |         |         |      |      |
| 3.2.03 · Remuneration in services professions                                     | 15,563  | 28,097  | 23   | 2018 |
| Gross annual income including supplements such as bonuses, US\$                   |         |         |      |      |
| Remuneration in services professions / Call center agent                          | 13,790  | 18,893  |      | 2018 |
| Gross annual income including supplements such as bonuses, in US\$                |         |         |      |      |
| Remuneration in services professions / Nurse                                      | 11,036  | 18,792  |      | 2018 |
| Gross annual income including supplements such as bonuses, in US\$                |         |         |      |      |
| Remuneration in services professions / Primary school teacher                     | 14,454  | 30,286  |      | 2018 |
| Gross annual income including supplements such as bonuses, in US\$                |         |         |      |      |
| Remuneration in services professions / Product Manager                            | 25,298  | 48,626  |      | 2018 |
| Gross annual income including supplements such as bonuses, in US\$                |         |         |      |      |
| Remuneration in services professions / Sales Assistant                            | 13,755  | 29,496  |      | 2018 |
| Gross annual income including supplements such as bonuses, in US\$                |         |         |      |      |
| Remuneration in services professions / Secretary / Personal                       | 15,042  | 22,488  |      | 2018 |
| Gross annual income including supplements such as bonuses, in US\$                |         |         |      |      |
| 3.2.04 · Remuneration of management   | 110,667 | 168,492 | 20   | 2018 |
| Total base salary plus bonuses and long-term incentives, US\$                     |         |         |      |      |
| Remuneration of management / CEO  | 213,155 | 304,252 |      | 2018 |
| Total base salary plus bonuses and long-term incentives, US\$                     |         |         |      |      |
| Remuneration of management / Director manufacturing                               | 92,946  | 148,688 |      | 2018 |
| Total base salary plus bonuses and long-term incentives, US\$                     |         |         |      |      |
| Remuneration of management / Engineer   | 41,690  | 79,567  |      | 2018 |
| Total base salary plus bonuses and long-term incentives, US\$                     |         |         |      |      |
| Remuneration of management / Human resources director                             | 94,876  | 141,460 |      | 2018 |
| Total base salary plus bonuses and long-term incentives, US\$                     |         |         |      |      |
| 3.2.05 · Remuneration spread  | 14.17   | 17.63   | 27   | 2018 |



|  |       |       |    |      |
|--|-------|-------|----|------|
| Ratio of CEO to personal assistant remuneration  |       |       |    |      |
| 3.2.06 · Working hours   | 1,788 | 1,838 | 35 | 2018 |
| Average number of working hours per year   |       |       |    |      |
| 3.2.07 · Worker motivation   | 5.45  | 5.85  | 39 | 2019 |
| Worker motivation in companies is high   |       |       |    |      |
| 3.2.08 · Industrial disputes   | 0.00  | 11.29 | 1  | 2013 |
| Working days lost per 1,000 inhabitants per year (average 2015-2017)                           |       |       |    |      |
| 3.2.09 · Apprenticeships   | 3.80  | 5.03  | 57 | 2019 |
| Apprenticeships are sufficiently implemented   |       |       |    |      |
| 3.2.10 · Employee training   | 5.57  | 5.94  | 40 | 2019 |
| Employee training is a high priority in companies  |       |       |    |      |
| 3.2.11 · Labor force   | 5.42  | 41.32 | 36 | 2018 |
| Employed and registered unemployed (millions)  |       |       |    |      |
| 3.2.12 · Labor force (%)   | 50.96 | 50.35 | 26 | 2018 |
| Percentage of population   |       |       |    |      |
| 3.2.13 · Labor force growth  | 0.72  | 0.98  | 39 | 2018 |
| Percentage change  |       |       |    |      |
| 3.2.14 · Labor force long-term growth  | 1.24  | 1.59  | 29 | 2018 |
| Estimates: % of population, percentage change in 4 years                                       |       |       |    |      |
| 3.2.15 · Part-time employment  | 5.36  | 14.17 | 46 | 2017 |
| Percentage of total employment   |       |       |    |      |
| 3.2.16 · Female labor force  | 44.69 | 43.01 | 39 | 2018 |
| Percentage of total labor force  |       |       |    |      |
| 3.2.17 · Foreign labor force   | 10.41 | 14.71 | 21 | 2017 |
| Percentage of total labor force  |       |       |    |      |
| 3.2.18 · Skilled labor   | 3.58  | 5.41  | 56 | 2019 |
| Skilled labor is readily available   |       |       |    |      |
| 3.2.19 · Finance skills  | 5.29  | 6.27  | 51 | 2019 |
| Finance skills are readily available   |       |       |    |      |
| 3.2.20 · Attracting and retaining talents  | 6.84  | 6.75  | 33 | 2019 |
| Attracting and retaining talents is a priority in companies                                    |       |       |    |      |
| 3.2.21 · Brain drain   | 4.58  | 4.88  | 34 | 2019 |
| Brain drain (well-educated and skilled people) does not hinder competitiveness in your economy |       |       |    |      |
| 3.2.22 · Foreign highly-skilled personnel  | 4.61  | 5.36  | 43 | 2019 |
| Foreign highly-skilled personnel are attracted to your country's business environment          |       |       |    |      |
| 3.2.23 · International experience  | 4.81  | 5.61  | 51 | 2019 |
| International experience of senior managers is generally significant                           |       |       |    |      |
| 3.2.24 · Competent senior managers   | 4.42  | 5.46  | 53 | 2019 |
| Competent senior managers are readily available  |       |       |    |      |
| 3.2.99 · Labor relations   | 6.82  | 6.24  | 21 | 2018 |
| Labor relations are generally productive   |       |       |    |      |

### 3.3 · Finance

|  | Value  | Average | Rank | Year |
|--|--------|---------|------|------|
| 3.3.01 · Banking sector assets   | 100.86 | 145.18  | 39   | 2018 |
| Percentage of GDP  |        |         |      |      |
| 3.3.02 · Financial cards in circulation  | 1.23   | 3.39    | 53   | 2018 |
| Number of cards per capita   |        |         |      |      |
| 3.3.03 · Financial card transactions   | 5,776  | 10,482  | 38   | 2018 |
| US\$ per capita  |        |         |      |      |
| 3.3.04 · Access to financial services  | 80.99  | 82.69   | 40   | 2017 |
| Proportion of adults with a bank account or mobile-money-service provider                        |        |         |      |      |
| 3.3.05 · Access to financial services - gender ratio   | 0.94   | 0.96    | 45   | 2017 |
| Difference between the female and male access to a bank account or mobile-money-service provider |        |         |      |      |
| 3.3.06 · Banking and financial services  | 5.90   | 6.09    | 39   | 2019 |
| Banking and financial services do support business activities efficiently                        |        |         |      |      |
| 3.3.07 · Regulatory compliance (banking laws)  | 7.00   | 6.78    | 33   | 2019 |
| Regulatory compliance is sufficiently developed  |        |         |      |      |
| 3.3.08 · Stock markets   | 4.84   | 5.54    | 43   | 2019 |
| Stock markets provide adequate financing to companies  |        |         |      |      |

|   |       |         |    |      |
|---|-------|---------|----|------|
| 3.3.09 · Stock market capitalization (\$bn)   | 28.0  | 1,066.4 | 50 | 2018 |
| US\$ billions   |       |         |    |      |
| 3.3.10 · Stock market capitalization (%)  | 11.41 | 79.72   | 56 | 2018 |
| Percentage of GDP   |       |         |    |      |
| 3.3.11 · Value traded on stock markets  | 550   | 17,733  | 39 | 2018 |
| US\$ per capita   |       |         |    |      |
| 3.3.12 · Listed domestic companies  | 15    | 707     | 62 | 2015 |
| Number of listed domestic companies   |       |         |    |      |
| 3.3.13 · Stock market index   | 8.01  | 6.10    | 18 | 2018 |
| Percentage change on index in national currency   |       |         |    |      |
| 3.3.14 · Shareholders' rights   | 6.42  | 6.73    | 36 | 2019 |
| Shareholders' rights are sufficiently implemented   |       |         |    |      |
| 3.3.15 · Initial Public Offerings   | 297.3 | 2,955.1 | 44 | 2016 |
| By acquiror nation (average 2016-2018) US\$ millions  |       |         |    |      |
| 3.3.16 · Credit   | 6.03  | 5.88    | 37 | 2019 |
| Credit is easily available for business   |       |         |    |      |
| 3.3.17 · Venture capital  | 5.32  | 5.13    | 31 | 2019 |
| Venture capital is easily available for business  |       |         |    |      |
| 3.3.18 · M&A Activity   | 6.138 | 1.163   | 2  | 2015 |
| Deals per listed company (average 2015-2017)  |       |         |    |      |
| 3.3.19 · Corporate debt   | 6.52  | 5.85    | 24 | 2019 |
| Corporate debt does not restrain the ability of enterprises to compete  |       |         |    |      |
| 3.3.99 · Finance and banking regulation   | 7.29  | 6.44    | 17 | 2018 |
| Finance and banking regulation is sufficiently adequate   |       |         |    |      |
| 3.3.99 · Financial risk factor  | 6.90  | 5.93    | 14 | 2018 |
| The risk factor in the financial system (new financial instruments, non-performing loans, transparency) is adequately addressed |       |         |    |      |

### 3.4 · Management Practices

|  | Value | Average | Rank | Year |
|--|-------|---------|------|------|
| 3.4.01 · Agility of companies  | 5.80  | 5.95    | 35   | 2019 |
| Companies are agile  |       |         |      |      |
| 3.4.02 · Changing market conditions  | 6.49  | 6.58    | 42   | 2019 |
| Companies are generally extremely aware of changing market conditions              |       |         |      |      |
| 3.4.03 · Opportunities and threats   | 5.77  | 6.02    | 41   | 2019 |
| Companies are very good at responding quickly to opportunities and threats         |       |         |      |      |
| 3.4.04 · Credibility of managers   | 5.29  | 6.03    | 48   | 2019 |
| Credibility of managers in society is strong                                       |       |         |      |      |
| 3.4.05 · Corporate boards  | 5.52  | 6.03    | 44   | 2019 |
| Corporate boards do supervise the management of companies effectively              |       |         |      |      |
| 3.4.06 · Auditing and accounting practices   | 7.13  | 7.16    | 33   | 2019 |
| Auditing and accounting practices are adequately implemented in business           |       |         |      |      |
| 3.4.07 · Use of big data and analytics   | 4.90  | 5.07    | 36   | 2019 |
| Companies are very good at using big data and analytics to support decision-making |       |         |      |      |
| 3.4.08 · Customer satisfaction   | 6.39  | 6.88    | 47   | 2019 |
| Customer satisfaction is emphasized in companies                                   |       |         |      |      |
| 3.4.09 · Entrepreneurship  | 5.74  | 5.94    | 38   | 2019 |
| Entrepreneurship of managers is widespread in business                             |       |         |      |      |
| 3.4.10 · Social responsibility   | 5.19  | 5.84    | 44   | 2019 |
| Social responsibility of business leaders is high                                  |       |         |      |      |
| 3.4.11 · Women in management   | 24.64 | 31.70   | 48   | 2017 |
| Female share of senior and middle management (% of management)                     |       |         |      |      |
| 3.4.12 · Women on boards   | 7.70  | 18.25   | 47   | 2018 |
| Boardmembers of all companies analyzed by MSCI                                     |       |         |      |      |
| 3.4.99 · Ethical practices   | 5.69  | 6.22    | 38   | 2018 |
| Ethical practices are implemented in companies                                     |       |         |      |      |

### 3.5 · Attitudes and Values

|   | Value | Average | Rank | Year |
|---|-------|---------|------|------|
| 3.5.01 · Attitudes toward globalization                               | 5.90  | 6.37    | 41   | 2019 |
| Attitudes toward globalization are generally positive in your society |       |         |      |      |

|  |             |             |           |             |
|--|-------------|-------------|-----------|-------------|
| <b>3.5.02 · Image abroad or branding</b>                                       | <b>6.32</b> | <b>6.22</b> | <b>34</b> | <b>2019</b> |
| The image abroad of your country encourages business development               |             |             |           |             |
| <b>3.5.03 · National culture</b>   | <b>5.84</b> | <b>6.68</b> | <b>50</b> | <b>2019</b> |
| The national culture is open to foreign ideas                                  |             |             |           |             |
| <b>3.5.04 · Flexibility and adaptability</b>                                   | <b>6.35</b> | <b>6.55</b> | <b>39</b> | <b>2019</b> |
| Flexibility and adaptability of people are high when faced with new challenges |             |             |           |             |
| <b>3.5.05 · Need for economic and social reforms</b>                           | <b>5.10</b> | <b>5.79</b> | <b>43</b> | <b>2019</b> |
| The need for economic and social reforms is generally well understood          |             |             |           |             |
| <b>3.5.06 · Digital transformation in companies</b>                            | <b>5.32</b> | <b>5.66</b> | <b>39</b> | <b>2019</b> |
| Digital transformation in companies is generally well understood               |             |             |           |             |
| <b>3.5.07 · Value system</b>   | <b>6.42</b> | <b>6.16</b> | <b>31</b> | <b>2019</b> |
| The value system in your society supports competitiveness                      |             |             |           |             |
| <b>3.5.99 · Corporate values</b>   | <b>6.23</b> | <b>6.35</b> | <b>37</b> | <b>2018</b> |
| Corporate values take into account the values of employees                     |             |             |           |             |

# CZECH REPUBLIC

## 4 · Infrastructure

### 4.1 · Basic Infrastructure

|  | Value | Average | Rank | Year |
|--|-------|---------|------|------|
| 4.1.01 · Land area   | 79    | 1,478   | 44   | 2018 |
| Square kilometers ('000)   |       |         |      |      |
| 4.1.02 · Arable area   | 2,404 | 3,111   | 27   | 2016 |
| Square meters per capita   |       |         |      |      |
| 4.1.03 · Water resources   | 1,247 | 19,246  | 48   | 2014 |
| Total internal renewable per capita in cubic meters                                      |       |         |      |      |
| 4.1.04 · Access to water   | 7.97  | 8.00    | 37   | 2019 |
| Access to water is adequately ensured and managed  |       |         |      |      |
| 4.1.05 · Management of cities  | 6.39  | 6.60    | 38   | 2019 |
| Management of cities supports business development                                       |       |         |      |      |
| 4.1.06 · Population - market size  | 10.63 | 83.80   | 36   | 2018 |
| Estimates in millions  |       |         |      |      |
| 4.1.07 · Population - growth   | 0.36  | 0.79    | 43   | 2018 |
| Percentage change  |       |         |      |      |
| 4.1.08 · Population under 15 years   | 15.8  | 18.9    |      | 2018 |
| Percentage of total population   |       |         |      |      |
| 4.1.09 · Population over 65 years  | 19.3  | 14.3    |      | 2018 |
| Percentage of total population   |       |         |      |      |
| 4.1.10 · Dependency ratio  | 53.9  | 50.2    | 45   | 2018 |
| Population under 15 and over 64 years old, divided by active population (15 to 64 years) |       |         |      |      |
| 4.1.11 · Roads   | 1.66  | 1.22    | 12   | 2016 |
| Density of the network, km roads/square km land area                                     |       |         |      |      |
| 4.1.12 · Railroads   | 0.119 | 0.047   | 4    | 2017 |
| Density of the network, km per square km   |       |         |      |      |
| 4.1.13 · Air transportation  | 5,451 | 62,185  | 50   | 2017 |
| Number of passengers carried by main companies, thousands                                |       |         |      |      |
| 4.1.14 · Quality of air transportation   | 7.10  | 7.12    | 37   | 2019 |
| Quality of air transportation encourages business development                            |       |         |      |      |
| 4.1.15 · Distribution infrastructure   | 7.39  | 7.07    | 33   | 2019 |
| The distribution infrastructure of goods and services is generally efficient             |       |         |      |      |
| 4.1.16 · Energy infrastructure   | 8.26  | 7.09    | 18   | 2019 |
| Energy infrastructure is adequate and efficient  |       |         |      |      |
| 4.1.17 · Total indigenous energy production  | 27.38 | 178.96  | 34   | 2016 |
| Millions MTOE  |       |         |      |      |
| 4.1.18 · Total indigenous energy production (%)  | 65.9  | 106.0   | 30   | 2016 |
| Percentage of total requirements in tons of oil equivalent                               |       |         |      |      |
| 4.1.19 · Total final energy consumption  | 25.40 | 125.73  | 27   | 2016 |
| Millions MTOE  |       |         |      |      |
| 4.1.20 · Total final energy consumption per capita                                       | 2.40  | 2.43    | 41   | 2016 |
| MTOE per capita  |       |         |      |      |
| 4.1.21 · Electricity costs for industrial clients  | 0.096 | 0.103   | 28   | 2018 |
| US\$ per kwh   |       |         |      |      |
| 4.1.99 · Access to commodities   | 8.35  | 8.08    | 35   | 2018 |
| Access to commodities (basic resources, food, etc.) is adequately addressed              |       |         |      |      |
| 4.1.99 · Maintenance and development   | 4.71  | 5.97    | 49   | 2018 |
| Maintenance and development of infrastructure are adequately planned and financed        |       |         |      |      |
| 4.1.99 · Water transportation  | 5.47  | 6.94    | 50   | 2018 |
| Water transportation (harbors, canals, etc.) meets business requirements                 |       |         |      |      |

### 4.2 · Technological Infrastructure

|   | Value | Average | Rank | Year |
|---|-------|---------|------|------|
| 4.2.01 · Investment in Telecommunications | 0.45  | 0.47    | 25   | 2018 |

| Percentage of GDP  |        |        |    |      |
|--|--------|--------|----|------|
| 4.2.02 · Mobile Broadband subscribers  | 92.8   | 75.4   | 17 | 2017 |
| 3G & 4G market, % of mobile market   |        |        |    |      |
| 4.2.03 · Mobile Telephone costs  | 12.6   | 16.6   | 29 | 2017 |
| Monthly Blended Average Revenue per User   |        |        |    |      |
| 4.2.04 · Communications technology   | 7.26   | 7.71   | 48 | 2019 |
| Communications technology (voice and data) meets business requirements           |        |        |    |      |
| 4.2.05 · Computers in use  | 0.35   | 1.35   | 35 | 2017 |
| Worldwide share/ Source: Computer Industry Almanac                               |        |        |    |      |
| 4.2.06 · Computers per capita  | 891    | 713    | 31 | 2017 |
| Number of computers per 1000 people/ Source: Computer Industry Almanac           |        |        |    |      |
| 4.2.07 · Internet users  | 841    | 736    | 28 | 2017 |
| Number of internet users per 1000 people/ Source: Computer Industry Almanac      |        |        |    |      |
| 4.2.08 · Broadband subscribers   | 386    | 369    | 29 | 2017 |
| Number of subscriptions per 1000 inhabitants                                     |        |        |    |      |
| 4.2.09 · Internet bandwidth speed  | 23.7   | 18.5   | 24 | 2018 |
| Average speed  |        |        |    |      |
| 4.2.10 · Digital/Technological skills  | 6.71   | 6.91   | 39 | 2019 |
| Digital/Technological skills are readily available                               |        |        |    |      |
| 4.2.11 · Qualified engineers   | 5.26   | 6.49   | 56 | 2019 |
| Qualified engineers are available in your labor market                           |        |        |    |      |
| 4.2.12 · Public-private partnerships   | 5.10   | 5.96   | 49 | 2019 |
| Public and private sector ventures are supporting technological development      |        |        |    |      |
| 4.2.13 · Development and application of technology                               | 5.94   | 6.41   | 44 | 2019 |
| Development and application of technology are supported by the legal environment |        |        |    |      |
| 4.2.14 · Funding for technological development                                   | 5.55   | 5.88   | 41 | 2019 |
| Funding for technological development is readily available                       |        |        |    |      |
| 4.2.15 · High-tech exports (\$)  | 21,070 | 31,268 | 20 | 2017 |
| US\$ millions  |        |        |    |      |
| 4.2.16 · High-tech exports (%)   | 12.77  | 13.58  | 29 | 2017 |
| Percentage of manufactured exports   |        |        |    |      |
| 4.2.17 · ICT service exports   | 33.5   | 27.3   | 17 | 2017 |
| Percentage of service exports  |        |        |    |      |
| 4.2.18 · Cyber security  | 6.13   | 5.80   | 28 | 2019 |
| Cyber security is being adequately addressed by corporations                     |        |        |    |      |
| 4.2.99 · Technological cooperation   | 5.73   | 5.67   | 30 | 2018 |
| Technological cooperation between companies is developed                         |        |        |    |      |

### 4.3 · Scientific Infrastructure

|   | Value | Average | Rank | Year |
|---|-------|---------|------|------|
| 4.3.01 · Total expenditure on R&D (\$)              | 3,867 | 25,527  | 32   | 2017 |
| US\$ millions                                       |       |         |      |      |
| 4.3.02 · Total expenditure on R&D (%)               | 1.79  | 1.46    | 21   | 2017 |
| Percentage of GDP                                   |       |         |      |      |
| 4.3.03 · Total expenditure on R&D per capita (\$)   | 365.1 | 557.5   | 28   | 2017 |
| US\$ per capita                                     |       |         |      |      |
| 4.3.04 · Business expenditure on R&D (\$)           | 2,430 | 18,988  | 31   | 2017 |
| US\$ millions                                       |       |         |      |      |
| 4.3.05 · Business expenditure on R&D (%)            | 1.12  | 0.97    | 20   | 2017 |
| Percentage of GDP                                   |       |         |      |      |
| 4.3.06 · Total R&D personnel                        | 69.7  | 204.5   | 26   | 2017 |
| Full-time work equivalent (FTE thousands)           |       |         |      |      |
| 4.3.07 · Total R&D personnel per capita             | 6.59  | 4.57    | 17   | 2017 |
| Full-time work equivalent (FTE) per 1000 people     |       |         |      |      |
| 4.3.08 · Total R&D personnel in business enterprise | 40.0  | 150.9   | 26   | 2017 |
| Full-time work equivalent (FTE thousands)           |       |         |      |      |
| 4.3.09 · Total R&D personnel in business per capita | 3.77  | 2.78    | 20   | 2017 |
| Full-time work equivalent (FTE) per 1000 people     |       |         |      |      |
| 4.3.10 · Researchers in R&D per capita              | 3.7   | 3.2     | 24   | 2017 |
| Full-time work equivalent (FTE) per 1000 people     |       |         |      |      |



|  |        |        |    |      |
|--|--------|--------|----|------|
| 4.3.11 · Science degrees   | 33.40  | 34.67  | 35 | 2014 |
| Percentage of total first university degrees in science and engineering                                    |        |        |    |      |
| 4.3.12 · Scientific articles   | 15,963 | 34,843 | 24 | 2016 |
| Scientific articles published by origin of author  |        |        |    |      |
| 4.3.13 · Nobel prizes  | 1      | 9      | 21 | 2018 |
| Awarded in physics, chemistry, physiology or medicine and economics since 1950                             |        |        |    |      |
| 4.3.14 · Nobel prizes per capita   | 0.09   | 0.19   | 20 | 2018 |
| Awarded in physics, chemistry, physiology or medicine and economics since 1950 per million people          |        |        |    |      |
| 4.3.15 · Patent applications   | 2,185  | 51,847 | 36 | 2017 |
| Number of applications filed by applicant's origin   |        |        |    |      |
| 4.3.16 · Patent applications per capita  | 20.63  | 82.67  | 31 | 2017 |
| Number of applications filed by applicant's origin, per 100,000 inhabitants                                |        |        |    |      |
| 4.3.17 · Patent grants   | 1,284  | 22,349 | 33 | 2017 |
| Number of patents granted by applicant's origin (average 2014-2016)  |        |        |    |      |
| 4.3.18 · Number of patents in force  | 68.0   | 341.1  | 30 | 2017 |
| by applicant's origin, per 100,000 inhabitants   |        |        |    |      |
| 4.3.19 · Medium- and high-tech value added   | 50.51  | 37.98  | 11 | 2015 |
| Proportion of total manufacturing value added, expressed as a percentage                                   |        |        |    |      |
| 4.3.20 · Scientific research legislation   | 5.42   | 5.85   | 38 | 2019 |
| Laws relating to scientific research do encourage innovation   |        |        |    |      |
| 4.3.21 · Intellectual property rights  | 6.90   | 6.53   | 25 | 2019 |
| Intellectual property rights are adequately enforced   |        |        |    |      |
| 4.3.22 · Knowledge transfer  | 4.29   | 5.34   | 51 | 2019 |
| Knowledge transfer is highly developed between companies and universities                                  |        |        |    |      |
| 4.3.99 · Innovative capacity   | 5.73   | 5.72   | 34 | 2018 |
| Innovative capacity of firms (to generate new products, processes and/or services) is high in your economy |        |        |    |      |
| 4.3.99 · Researchers and scientists  | 5.23   | 4.86   | 27 | 2018 |
| Researchers and scientists are attracted to your country   |        |        |    |      |
| 4.3.99 · Scientific research   | 5.92   | 5.42   | 26 | 2018 |
| Scientific research (public and private) is high by international standards                                |        |        |    |      |

#### 4.4 · Health and Environment

|   | Value  | Average | Rank | Year |
|---|--------|---------|------|------|
| 4.4.01 · Total health expenditure   | 7.1    | 7.4     | 33   | 2016 |
| Percentage of GDP   |        |         |      |      |
| 4.4.02 · Total health expenditure per capita  | 1,320  | 2,339   | 33   | 2016 |
| US\$ per capita   |        |         |      |      |
| 4.4.03 · Public expenditure on health (%)   | 81.88  | 66.07   | 8    | 2016 |
| Percentage of total health expenditure  |        |         |      |      |
| 4.4.04 · Health infrastructure  | 6.42   | 5.72    | 29   | 2019 |
| Health infrastructure meets the needs of society                                      |        |         |      |      |
| 4.4.05 · Universal health care coverage index   | 73     | 74      | 38   | 2015 |
| Index (0-80) measuring coverage of essential health services                          |        |         |      |      |
| 4.4.06 · Life expectancy at birth   | 78.9   | 78.2    | 32   | 2017 |
| Average estimate  |        |         |      |      |
| 4.4.07 · Healthy life expectancy  | 69.5   | 69.5    | 31   | 2018 |
| Average estimate  |        |         |      |      |
| 4.4.08 · Infant mortality   | 3.3    | 8.2     | 13   | 2017 |
| Under five mortality rate per 1000 live births  |        |         |      |      |
| 4.4.09 · Medical assistance   |        |         | 14   | 2016 |
| Number of inhabitants per physician and per nurse                                     |        |         |      |      |
| Medical assistance / Per nurse  | 118.43 | 209.15  |      | 2016 |
| Number of inhabitants per physician and per nurse                                     |        |         |      |      |
| Medical assistance / Per physician  | 265.23 | 485.47  |      | 2016 |
| Number of inhabitants per physician and per nurse                                     |        |         |      |      |
| 4.4.10 · Urban population   | 73     | 76      |      | 2018 |
| Percentage of total population  |        |         |      |      |
| 4.4.11 · Human development index  | 0.888  | 0.851   | 27   | 2017 |
| Combines economic - social - educational indicators/ Source: Human Development Report |        |         |      |      |
| 4.4.12 · Energy intensity   | 130    | 127     | 41   | 2016 |

|   |       |       |    |      |
|---|-------|-------|----|------|
| Total energy consumed for each 1000 US\$ of GDP in MTOE                           |       |       |    |      |
| 4.4.13 · Waste water treatment plants   | 85.2  | 76.7  | 25 | 2015 |
| Percentage of population served   |       |       |    |      |
| 4.4.14 · Water consumption intensity  | 8.58  | 41.11 | 13 | 2015 |
| Water withdrawal for each 1000 US\$ of GDP in cubic meters                        |       |       |    |      |
| 4.4.15 · CO2 emissions  | 101.4 | 448.2 | 33 | 2016 |
| Metric tons of carbon dioxide from fuel combustion                                |       |       |    |      |
| 4.4.16 · CO2 emissions intensity  | 520.0 | 440.1 | 46 | 2016 |
| CO2 emissions from fuel combustion in metric tons per one million US\$ of GDP     |       |       |    |      |
| 4.4.17 · Exposure to particle pollution   | 16.22 | 20.11 | 33 | 2016 |
| Mean population exposure to PM2.5, Micrograms per cubic metre                     |       |       |    |      |
| 4.4.18 · Renewable energies (%)   | 10.4  | 15.9  | 33 | 2016 |
| Share of renewables in total energy requirements, %                               |       |       |    |      |
| 4.4.19 · Forest area growth   | 0.4   | 1.4   | 28 | 2015 |
| Five year percentage change of hectares   |       |       |    |      |
| 4.4.20 · Total biocapacity  | 2.56  | 3.96  | 30 | 2015 |
| Global hectares per capita of biologically productive space                       |       |       |    |      |
| 4.4.21 · Ecological footprint   | 5.6   | 5.4   | 38 | 2015 |
| Global hectares per person  |       |       |    |      |
| 4.4.22 · Ecological balance (reserve/deficit)                                     | -2.99 | -1.44 | 43 | 2015 |
| Total biocapacity minus total footprint in global hectares per capita             |       |       |    |      |
| 4.4.23 · Environment-related technologies   | 0.13  | 1.59  | 31 | 2015 |
| Development of environment-related technologies, % inventions worldwide           |       |       |    |      |
| 4.4.24 · Environmental agreements   | 83.33 | 83.39 | 40 | 2015 |
| Multilateral agreements on hazardous waste, proportion fulfilled                  |       |       |    |      |
| 4.4.25 · Sustainable development  | 5.48  | 6.08  | 40 | 2019 |
| Sustainable development is a priority in companies                                |       |       |    |      |
| 4.4.26 · Pollution problems   | 6.03  | 5.77  | 29 | 2019 |
| Pollution problems do not seriously affect your economy                           |       |       |    |      |
| 4.4.27 · Environmental laws   | 5.81  | 6.22  | 41 | 2019 |
| Environmental laws and compliance do not hinder the competitiveness of businesses |       |       |    |      |
| 4.4.28 · Quality of life  | 7.45  | 6.70  | 27 | 2019 |
| Quality of life is high   |       |       |    |      |

## 4.5 · Education

|  | Value | Average | Rank | Year |
|--|-------|---------|------|------|
| 4.5.01 · Total public expenditure on education   | 4.6   | 4.6     | 31   | 2017 |
| Percentage of GDP  |       |         |      |      |
| 4.5.02 · Total public expenditure on education per capita                                | 943   | 1,418   | 32   | 2017 |
| US\$ per capita  |       |         |      |      |
| 4.5.03 · Gov. expenditure on education per student                                       | 23.7  | 21.1    | 15   | 2015 |
| Percentage of GDP per capita (secondary education)                                       |       |         |      |      |
| 4.5.04 · Total public expenditure on education per student                               | 4,099 | 6,115   | 34   | 2016 |
| Spending per enrolled pupil/student, all levels  |       |         |      |      |
| 4.5.05 · Pupil-teacher ratio (primary education)   | 19.15 | 16.25   | 50   | 2016 |
| Ratio of students to teaching staff  |       |         |      |      |
| 4.5.06 · Pupil-teacher ratio (secondary education)                                       | 11.48 | 13.79   | 24   | 2016 |
| Ratio of students to teaching staff  |       |         |      |      |
| 4.5.07 · Secondary school enrollment   | 91.0  | 89.5    | 33   | 2016 |
| Percentage of relevant age group receiving full-time education                           |       |         |      |      |
| 4.5.08 · Higher education achievement  | 33.8  | 41.6    | 40   | 2017 |
| Percentage of population that has attained at least tertiary education for persons 25-34 |       |         |      |      |
| 4.5.09 · Women with degrees  | 25.5  | 37.9    | 42   | 2017 |
| Share of women who have a degree in the population 25-65                                 |       |         |      |      |
| 4.5.10 · Student mobility inbound  | 4.05  | 3.14    | 17   | 2016 |
| Foreign tertiary-level students per 1000 inhabitants                                     |       |         |      |      |
| 4.5.11 · Student mobility outbound   | 1.26  | 2.42    | 34   | 2017 |
| National tertiary-level students studying abroad per 1000 inhabitants                    |       |         |      |      |
| 4.5.12 · Educational assessment - PISA   | 493   | 476     | 26   | 2015 |
| PISA survey of 15-year olds  |       |         |      |      |

|  |              |              |                |
|--|--------------|--------------|----------------|
| <b>Educational assessment - PISA / Mathematics</b>                       | <b>492</b>   | <b>475</b>   | <b>2015</b>    |
| PISA survey of 15-year olds  |              |              |                |
| <b>Educational assessment - PISA / Sciences</b>                          | <b>493</b>   | <b>478</b>   | <b>2015</b>    |
| PISA survey of 15-year olds  |              |              |                |
| <b>4.5.13 · English proficiency - TOEFL</b>                              | <b>89</b>    | <b>89</b>    | <b>35</b> 2017 |
| TOEFL scores   |              |              |                |
| <b>4.5.14 · Primary and secondary education</b>                          | <b>5.45</b>  | <b>6.00</b>  | <b>41</b> 2019 |
| Primary and secondary education meets the needs of a competitive economy |              |              |                |
| <b>4.5.15 · University education</b>                                     | <b>6.06</b>  | <b>6.29</b>  | <b>40</b> 2019 |
| University education meets the needs of a competitive economy            |              |              |                |
| <b>4.5.16 · Management education</b>                                     | <b>5.90</b>  | <b>6.31</b>  | <b>43</b> 2019 |
| Management education meets the needs of the business community           |              |              |                |
| <b>4.5.17 · University education index</b>                               | <b>18.13</b> | <b>31.72</b> | <b>32</b> 2018 |
| Country score calculated from Times Higher Education university ranking  |              |              |                |
| <b>4.5.18 · Illiteracy</b>   | <b>1.0</b>   | <b>2.7</b>   | <b>1</b> 2016  |
| Adult (over 15 years) illiteracy rate as a percentage of population      |              |              |                |
| <b>4.5.19 · Language skills</b>  | <b>6.10</b>  | <b>6.31</b>  | <b>37</b> 2019 |
| Language skills are meeting the needs of enterprises                     |              |              |                |
| <b>4.5.99 · Educational system</b>                                       | <b>5.77</b>  | <b>5.62</b>  | <b>33</b> 2018 |
| The educational system meets the needs of a competitive economy          |              |              |                |
| <b>4.5.99 · Science in schools</b>                                       | <b>5.62</b>  | <b>5.34</b>  | <b>32</b> 2018 |
| Science in schools is sufficiently emphasized                            |              |              |                |



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**IMD Switzerland**  
 Chemin de Bellerive 23  
 P.O. Box 915  
 CH-1001 Lausanne  
 Switzerland  
 Central tel: +41 21 618 01 11

**IMD Singapore**  
 IMD SE Asia Pte. Ltd  
 South Beach Tower  
 38 Beach Road #17-11  
 Singapore 189767  
 Central tel: +65 6715 9988

Connect with us



**Talk with us**  
 +41 21 618 07 00 [info@imd.org](mailto:info@imd.org)