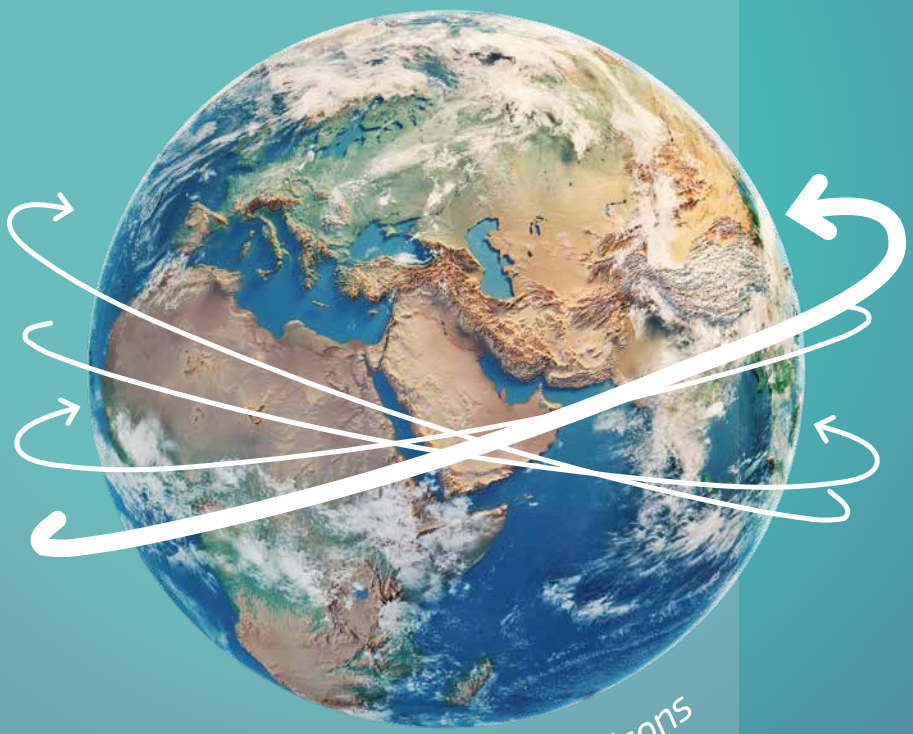
European Commission

# TOWARDS FAIR AND PROSPEROUS SUSTAINABILITY

## Transitions Performance Index 2020



*Country comparisons*

*Research and Innovation*

**TOWARDS FAIR AND PROSPEROUS SUSTAINABILITY – Transitions Performance Index 2020**

European Commission
Directorate-General for Research and Innovation
Directorate F – Prosperity

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EUROPEAN COMMISSION

# TOWARDS FAIR AND PROSPEROUS SUSTAINABILITY

## Transitions Performance Index 2020

edited by Pierre Vigier

2020

Directorate-General for Research and Innovation

# FOREWORD

**The world is facing profound challenges. This is nothing new. However, the difference is the rate of change, its global impact, and the necessity of finding common solutions both at country and individual levels.**

Interests diverge – local situations are specific and impose a different balance between different priorities. We must ensure that this does not obscure issues that are crucial for the future of the country concerned and of humanity more broadly.

The EU has taken the lead with the ambition to become the first climate neutral continent by 2050. This ambition of the European Green Deal, endorsed by the European Parliament and the European Council last year, is today more valid than ever. We are not just rebuilding the economy post Covid-19, we are rebuilding it better!

In order to do this, we need an adequate measure to gauge our progress, orient our actions and evaluate the impact of the measures taken. Gross Domestic Product (GDP) proved an adequate measure during the era when maximising the quantity of growth was the primary goal of economic policy. GDP alone is no longer sufficient to capture the complexity and nuanced nature of the challenges the world currently faces. We must continue to invest in the future but in a responsible manner, and therefore need a common compass that allows countries to make their choices with complete sovereignty.

Building such a compass is difficult. Too many variables – and too many interactions between these variables – lead to the construction of complex and incomplete models. These models can be difficult for the public to understand, and are sometimes plagued by disparate data, rarely updated. We must resolve to simplify and focus on the essential. However, this must be based on choices that were discussed and evaluated in full transparency.

A mere 30 years ago, the United Nations developed such a compass with the same logic: the Human Development Index. It was built trying to solve the three main emergencies of the time in a world facing exponential population growth: poverty, health and education.

Today, the priority challenges are to preserve the earth for future generations, while ensuring our well-being, maintaining civil liberties and upholding European values. This implies investing in the future in a responsible manner.

The index proposed in this report is based on the four transitions we now urgently face: the economic, the social, the environmental, and the governance transitions. It is the result of an assessment made by the European Commission of the priorities we must agree upon to address these challenges together.

The current Transitions Performance Index (TPI), ranking EU Member States in their paths to sustainability, is the first of its kind. I urge civil society and experts to contribute to its further development in future editions, which should go hand in hand with the development of its interpretation and of its use. The TPI already constitutes a simple and transparent tool, sufficiently robust on the conceptual and statistical level to be the compass we urgently need. Let's use it without delay.

***Mariya Gabriel***
***European Commissioner for Innovation, Research, Culture, Education and Youth***

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## Key findings and rankings



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# TPI COUNTRY COVERAGE

| COUNTRY NAMES AND CODES | | | |
|---|---|---|---|
| Albania | AL | Lithuania | LT |
| Algeria | DZ | Luxembourg | LU |
| Argentina | AR | Malaysia | MY |
| Armenia | AM | Malta | MT |
| Australia | AU | Mexico | MX |
| Austria | AT | Moldova | MD |
| Belgium | BE | Montenegro | ME |
| Bosnia and Herzegovina | BA | Morocco | MA |
| Brazil | BR | Netherlands | NL |
| Bulgaria | BG | New Zealand | NZ |
| Canada | CA | Nigeria | NG |
| Chile | CL | North Macedonia | MK |
| China | CN | Norway | NO |
| Colombia | CO | Philippines | PH |
| Croatia | HR | Poland | PL |
| Cyprus | CY | Portugal | PT |
| Czechia | CZ | Romania | RO |
| Denmark | DK | Russia | RU |
| Egypt | EG | Saudi Arabia | SA |
| Estonia | EE | Serbia | RS |
| **European Union** | **EU27** | Singapore | SG |
| Finland | FI | Slovakia | SK |
| France | FR | Slovenia | SI |
| Georgia | GE | South Africa | ZA |
| Germany | DE | South Korea | KR |
| Greece | EL | Spain | ES |
| Hungary | HU | Sweden | SE |
| Iceland | IS | Switzerland | CH |
| India | IN | Thailand | TH |
| Indonesia | ID | Tunisia | TN |
| Iran | IR | Turkey | TR |
| Ireland | IE | Ukraine | UA |
| Israel | IL | United Arab Emirates | AE |
| Italy | IT | United Kingdom | UK |
| Japan | JP | United States | US |
| Kenya | KE | Vietnam | VN |
| Latvia | LV | **World** | **WD** |

| COUNTRY CODES AND NAMES | | | |
|---|---|---|---|
| AE | United Arab Emirates | JP | Japan |
| AL | Albania | KE | Kenya |
| AM | Armenia | KR | South Korea |
| AR | Argentina | LT | Lithuania |
| AT | Austria | LU | Luxembourg |
| AU | Australia | LV | Latvia |
| BA | Bosnia and Herzegovina | MA | Morocco |
| BE | Belgium | MD | Moldova |
| BG | Bulgaria | ME | Montenegro |
| BR | Brazil | MK | North Macedonia |
| CA | Canada | MT | Malta |
| CH | Switzerland | MX | Mexico |
| CL | Chile | MY | Malaysia |
| CN | China | NG | Nigeria |
| CO | Colombia | NL | Netherlands |
| CY | Cyprus | NO | Norway |
| CZ | Czechia | NZ | New Zealand |
| DE | Germany | PH | Philippines |
| DK | Denmark | PL | Poland |
| DZ | Algeria | PT | Portugal |
| EE | Estonia | RO | Romania |
| EG | Egypt | RS | Serbia |
| EL | Greece | RU | Russia |
| ES | Spain | SA | Saudi Arabia |
| **EU27** | **European Union** | SE | Sweden |
| FI | Finland | SG | Singapore |
| FR | France | SI | Slovenia |
| GE | Georgia | SK | Slovakia |
| HR | Croatia | TH | Thailand |
| HU | Hungary | TN | Tunisia |
| ID | Indonesia | TR | Turkey |
| IE | Ireland | UA | Ukraine |
| IL | Israel | UK | United Kingdom |
| IN | India | US | United States |
| IR | Iran | VN | Vietnam |
| IS | Iceland | **WD** | **World** |
| IT | Italy | ZA | South Africa |

# KEY FINDINGS AND RANKINGS

## TRANSITIONS PERFORMANCE INDEX 2020

EUROPEAN COMMISSION

# KEY FINDINGS

**The transitions performance index (TPI) provides a global ranking of countries in four dimensions – economic, social, environmental and governance, over 2010-2019. These dimensions are the basis for a transition towards a model of equitable, fair and sustainable prosperity.**

Scoreboards have proved to have a powerful influence for informing and mobilising citizens in the European Union and for monitoring the impact of national policies. However, as the challenges are global, the TPI also presents the data at global level, so that best performances all over the world can be identified and be a source of inspiration for all.

The report compiles 25 indicators, which are internationally comparable and which use a methodology that an independent statistical audit has confirmed to be sufficiently robust to produce sound results. Country profiles are available to detail the indicators per country. Finally, a chapter on 'Linkages' opens avenues for further research on the economic determinants of progress towards this fair and sustainable prosperity and on the TPI's capacity to inform beyond the conventional measurement of GDP.

We present here a selection of key findings that are analysed and completed in more detail inside the present report.

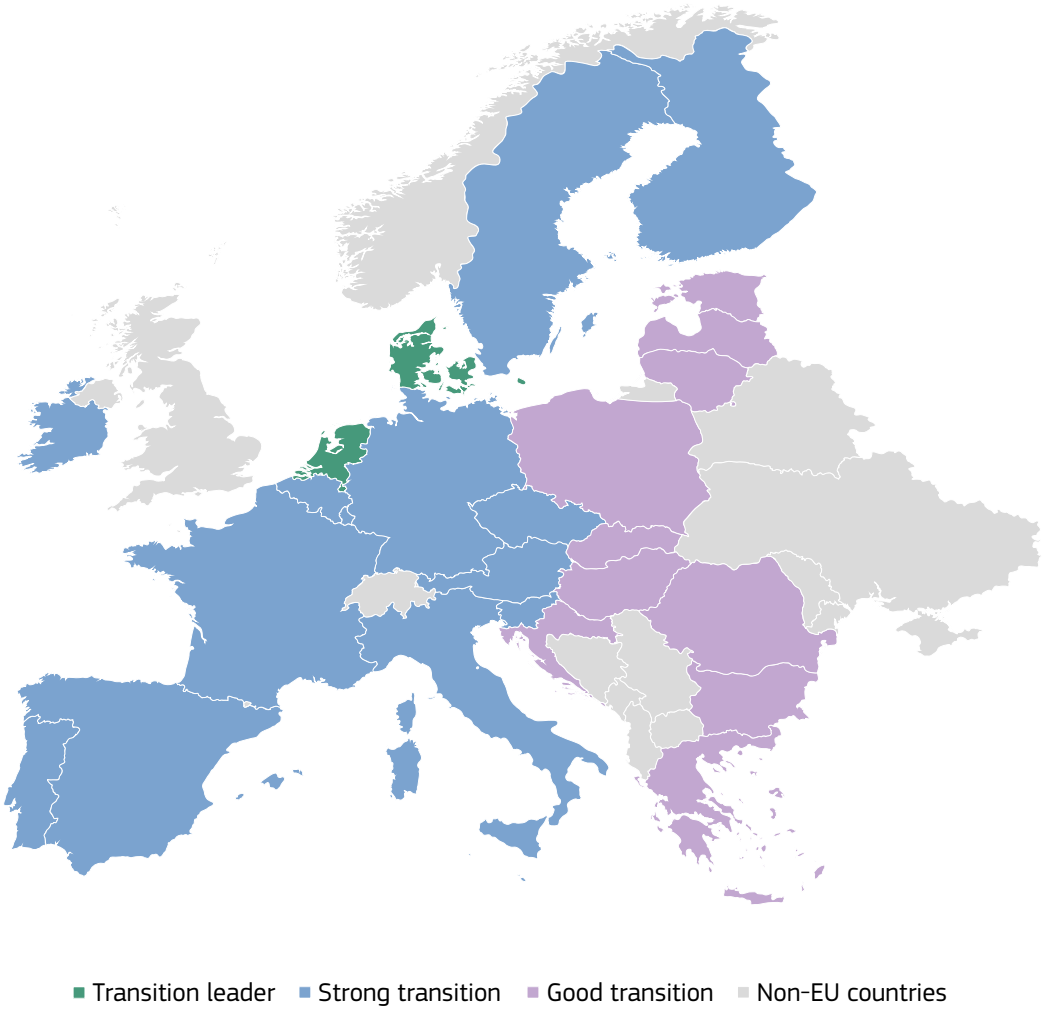


# TPI SCOREBOARD FOR THE EUROPEAN UNION

## EUROPEAN UNION TPI RANKINGS

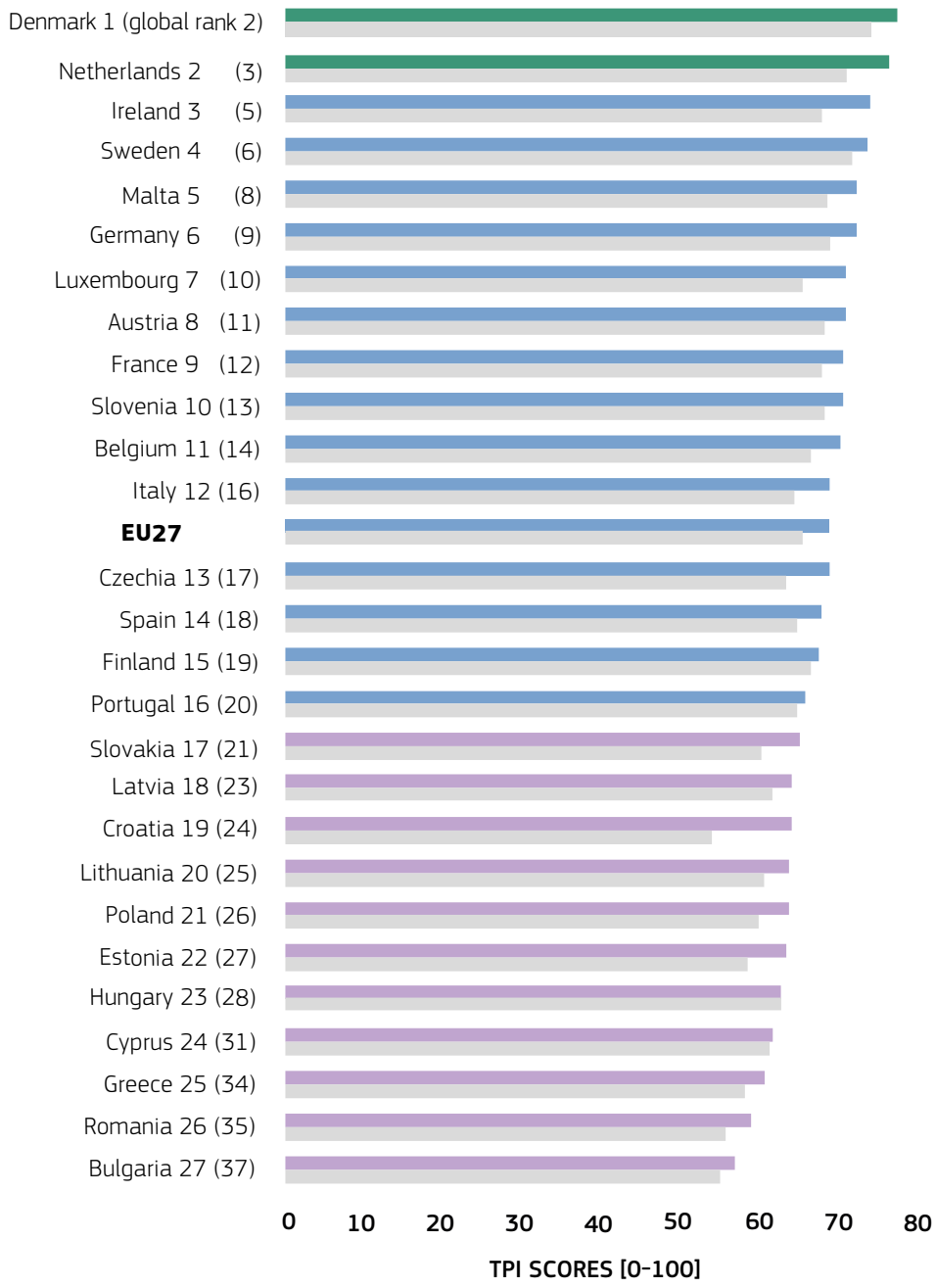
The European Union is a strong performer. Denmark and the Netherlands top the EU league as transition leaders (**Figure A**). EU Member States belong to the three groups of best performers (leader, strong or good). They are performing, as a whole, better than the United States and China.

**FIGURE A: EU Member States Transitions Performance Index groups (2019)**




*Source: European Commission, Transitions Performance Index 2020.*

**FIGURE B: EU Member States Transitions Performance Index ranking and scores (2010 and 2019)**




Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

*Note: The number in parenthesis indicates the TPI global rank.*

*Source: European Commission, Transitions Performance Index 2020.*

# TPI SCOREBOARD FOR THE EUROPEAN UNION

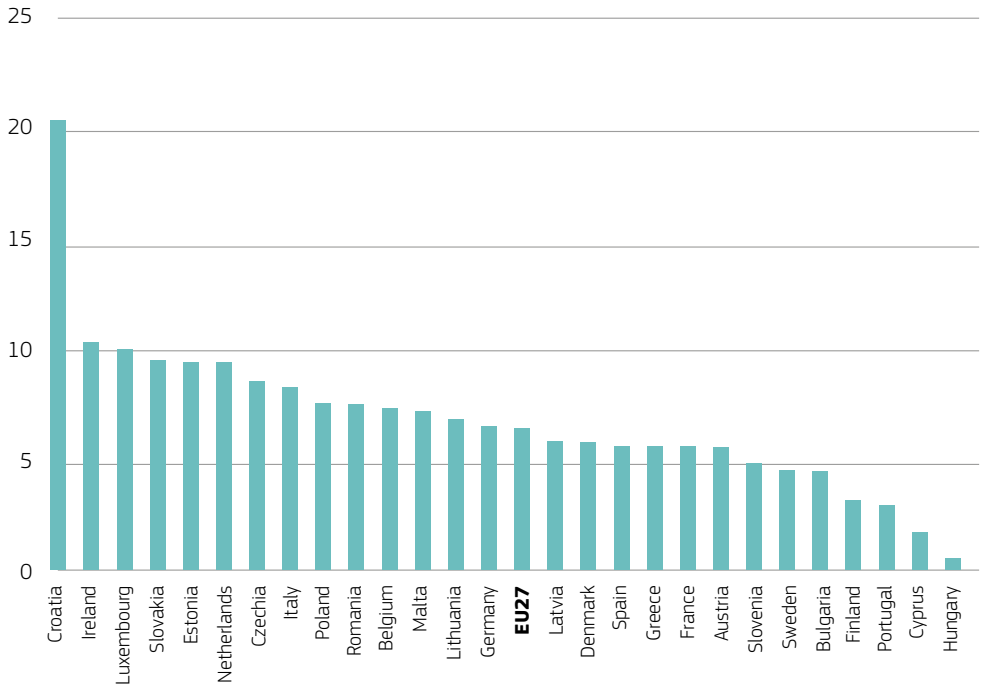
## EUROPEAN UNION TPI 2010-2019 PROGRESS

All EU countries have improved their performance since 2010, particularly Croatia, which made an exceptional effort to catch up (20.5 %), but also Ireland and Luxembourg (progress above 10 %). The sharp increase in the Netherlands' TPI score demonstrates that a country can continue to make progress even from a leading position, while many strong performers continue to progress at high speed. Several countries (Ireland, Luxembourg, Slovakia, Estonia, the Netherlands, Czechia, Italy, Poland, Romania, Belgium, Malta, Lithuania and Germany) progressed above the EU average (6.5 %).

EU Member States all progressed over the last decade, with an average improvement rate of 6.5 % (**Figure C**). Moreover, the starting point has not been the key determinant of progress: some strong performing countries have continued to advance, while some lesser performers have succeeded in catching up.

Latvia, Denmark, Spain, Greece, France, Austria, Slovenia, Sweden and Bulgaria all progressed above 4 %. In contrast, strong performers such as Portugal, Finland, Sweden and Slovenia seem to have come to a standstill and are at risk of losing ground in the transition process unless they renew their collective efforts.

**FIGURE C: EU Member States Transitions Performance Index progress rates (% change 2010-2019)**




*Source: European Commission, Transitions Performance Index 2020.*

# TPI SCOREBOARD FOR THE EUROPEAN UNION

## EUROPEAN UNION, UNITED STATES AND CHINA

The EU leads over the United States and China. Due to the distance to the frontier defined by the TPI goalposts, the United States and China need to further intensify their efforts to catch up within the next decades (**Figure E**).

While the 27 EU Member States post a strong performance, the United States and China belong respectively to the groups of good and moderate performers. Since 2010, China has progressed by 9.9%, the United States by 8.2% and the EU by 6.5% (**Figure D**). This highlights the importance of monitoring how countries pursue their efforts, as it is illustrated for the European Union in **Figure B**. In this regard, the European Union has recently confirmed its Green Deal priorities and reiterated that its COVID-19 recovery package aims at a collective effort also to accelerate transitions.

The EU performance increased in all four pillars, particularly in the environmental pillar (notably in resource productivity and energy productivity, which together compensate for a decline in emissions reduction and for limited progress in biodiversity protection).

The highest rate of progress in China is mostly in economic transition (education, and labour productivity and R&D intensity). The United States' strong point is the economic pillar (with improvements in education, wealth, and labour productivity and R&D intensity and a decline in industrial base). US progress in the environmental pillar has been facilitated by the low base level in 2010 (progress notably in resource productivity and energy productivity and despite reverse progress in greenhouse gas emissions reduction).

**FIGURE D: European Union, United States and China scores and transition groups**

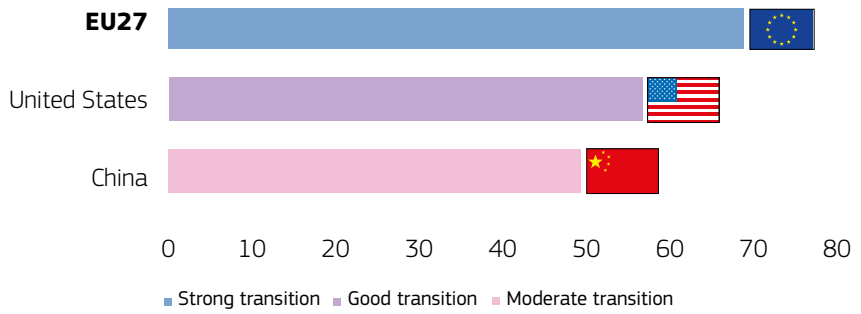
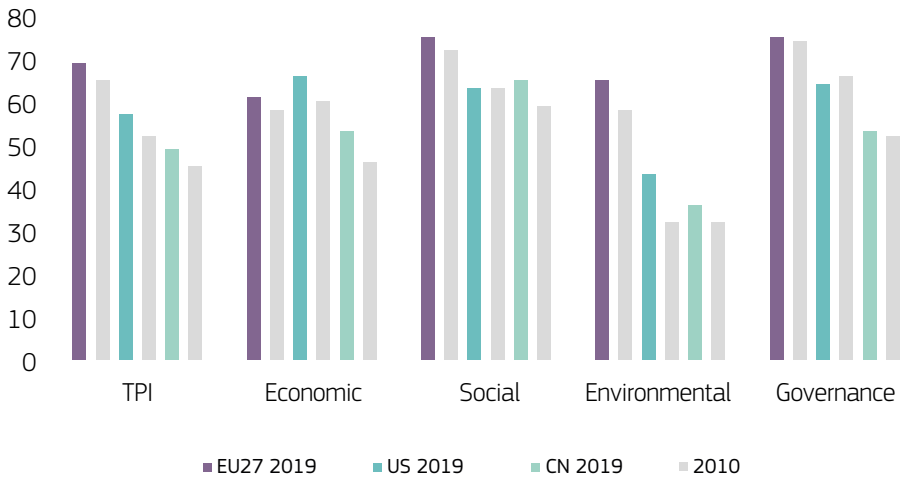



**FIGURE E: European Union, United States and China progress in the four transitions**




*Source: European Commission, Transitions Performance Index 2020.*

# TPI SCOREBOARD FOR THE EUROPEAN UNION

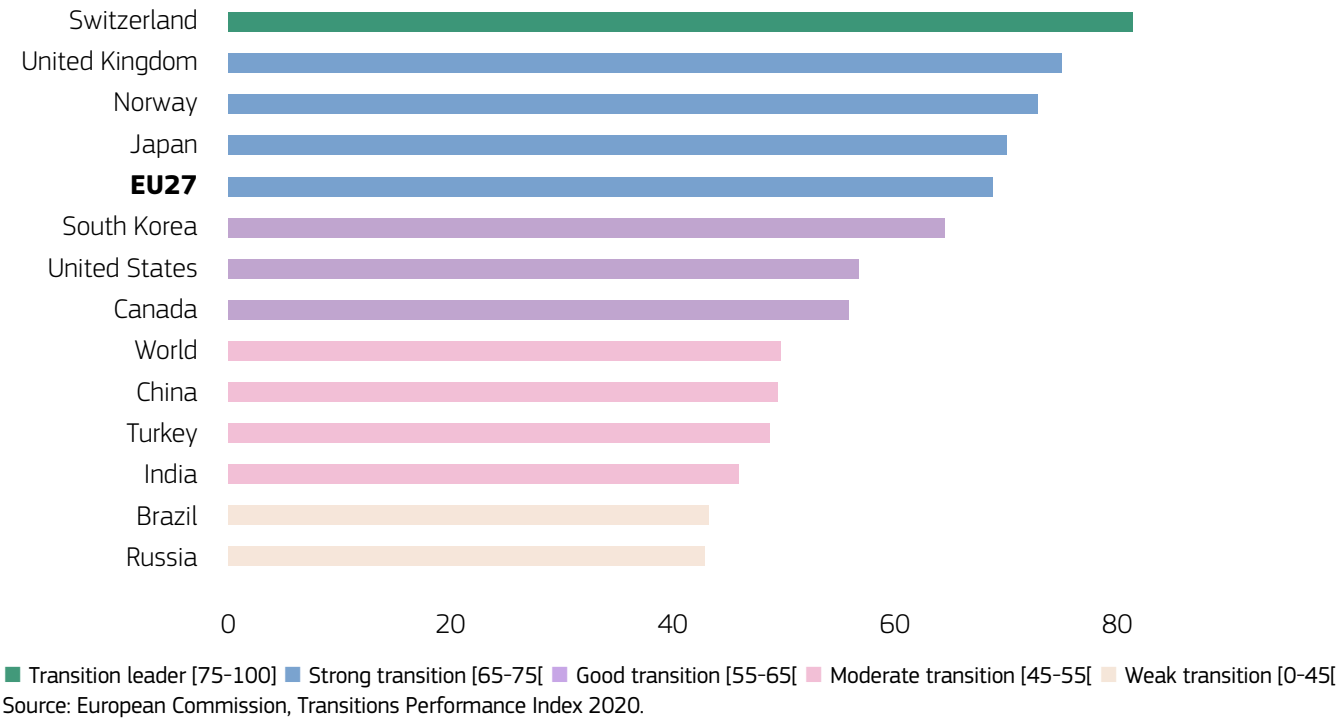
## EUROPEAN UNION AND MAIN TRADE PARTNERS

The only main trading partner in the same league as the EU outside Europe is Japan, while South Korea is not far behind. The gap with the United States and Canada is substantial; both countries are in good transition, performing better than China, Turkey and India, which are in moderate transition, and Brazil and Russia, in weak transition.

By providing a global perspective, the TPI report highlights, among our main trading partners, the best performers and countries that are lagging behind. The TPI therefore serves as a source of inspiration for our continuing efforts, as well as an invitation to a policy dialogue to contribute to global welfare taking up the transitions challenge (**Figure F**).

Among highly populated regions/countries, the performances of Japan and the EU are impressive, highlighting their efforts to contribute to the planet's sustainability.

**FIGURE F: European Union and main partners TPI scores and transition groups**




Source: European Commission, Transitions Performance Index 2020.

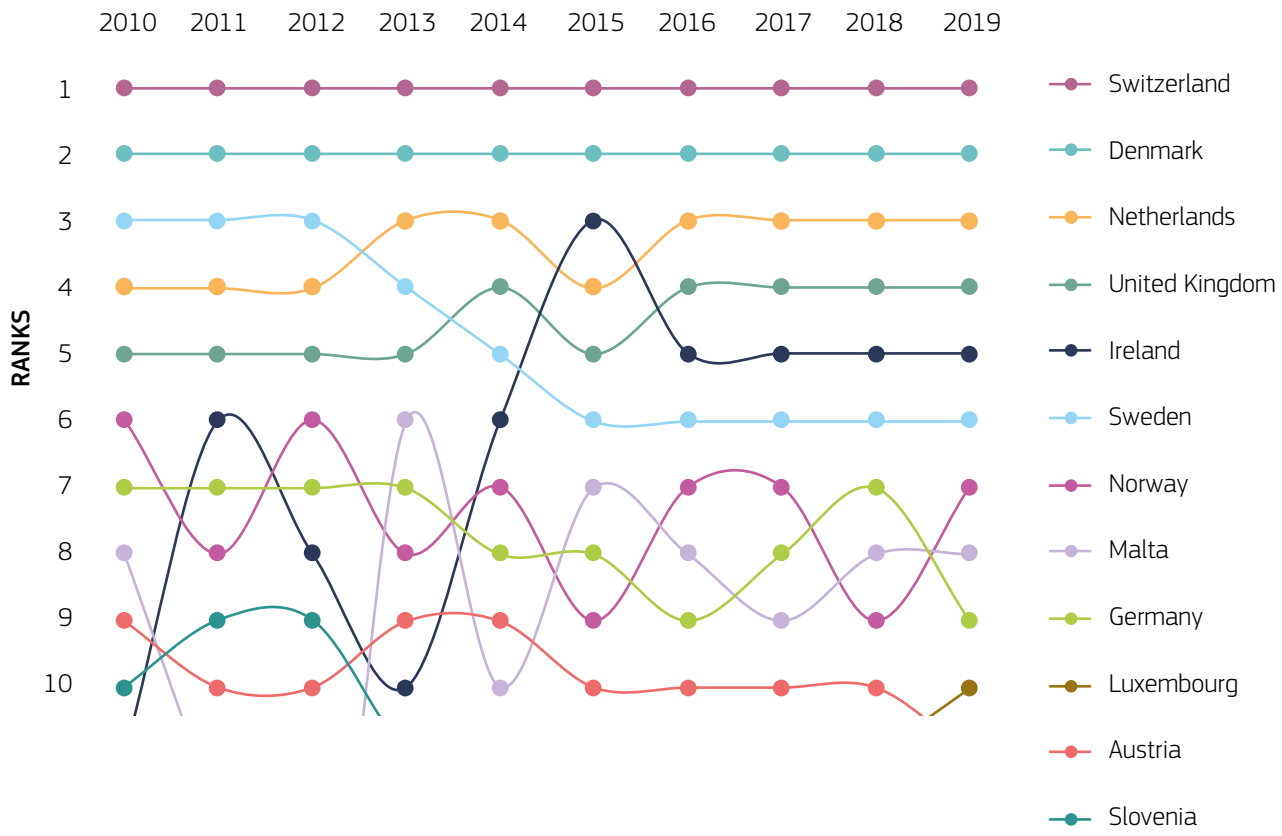
# TPI GLOBAL PERSPECTIVE

## GLOBAL RANKING 2010-2019

Switzerland and Denmark ranked consistently at the top of the TPI ranking, while the Netherlands progressed to third place and the UK to fourth place. Ireland posted the most substantial improvement (gain of six places), moving up to fifth place.

**What has been the progress of the TPI top 10 countries?**
The TPI compares progress over the 2010-2019 period, thus serving as a compass in benchmarking transition performance and informing the public on the impact of national policies (**Figure G**).

**FIGURE G: Global TPI top 10 performers, 2010-2019**




*Note: Luxembourg enters the top 10 in 2019, Slovenia leaves it in 2012, Austria in 2019.*
*Source: European Commission, Transitions Performance Index 2020.*

# TPI GLOBAL PERSPECTIVE

## BEST COUNTRIES TPI PERFORMANCE PER REGION OF THE WORLD

**What are the best performing countries in the world?**

Global challenges for the planet require a global response. TPI measures both the transition performance of a country and its contribution to the global effort as compared with its regional partners (**Figure H**).

***The Americas***

The countries of North, Central and South America (there are 7 countries in total in the ranking) lag behind in the TPI scores compared to other regions of the world. Leading in in the Americas, the United States and Canada perform both at the lower end of the countries in good transition.

***South-East Asia and Pacific***

In contrast, the South-East Asia and Pacific region (12 countries in the TPI) shows that the top five countries together form a pack of solid performers, followed by emerging economies that are less performing in TPI score.

***Middle East and Africa***

In the Middle East and Africa (11 countries in total), Israel tops the league, followed by the United Arab Emirates, both countries belonging to the group of good performers. In terms of progress, the two leaders are among the countries that have registered the highest relative progress since 2010.

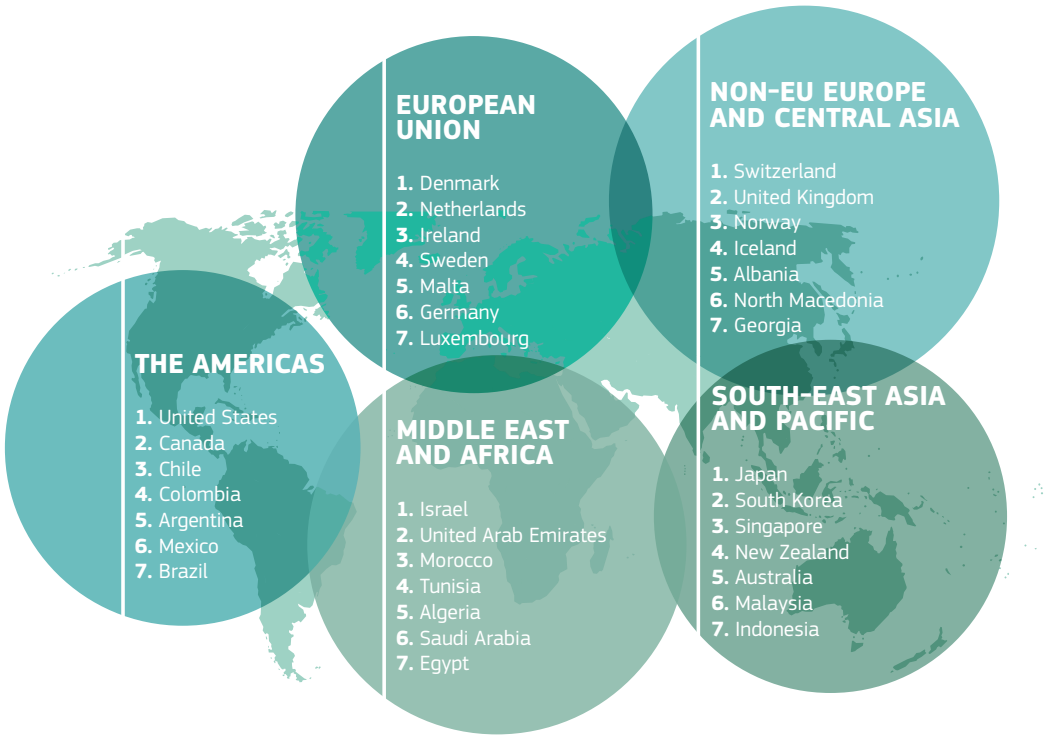
***Non-EU Europe and Central Asia***

In non-EU and Central Asia, which includes 15 countries, the European part dominates the scores. The role of the European Union (27 countries) seems to have been decisive in that orientation.

***European Union.***

The EU top performers belong all to leaders or best performers groups of the global TPI ranking. Differences in performance result notably of a more or less balanced position between economic, social environmental and governance transitions

**FIGURE H: Global TPI top 7 performers by regions of the world**




*Source: European Commission, Transitions Performance Index 2020.*

# TPI GLOBAL PERSPECTIVE

## BEST COUNTRIES' TPI PERFORMANCE PER INCOME GROUP AND PROGRESS RATE

High-income countries reflect the overall rankings of the TPI. Among upper-middle-income countries, Bulgaria, Albania and North Macedonia top the rankings, participating actively in EU policies (Georgia ranking 7th).

Among lower-middle-income countries, Morocco, Tunisia and Algeria top the rankings. Apart from the Asian economies, Moldova and Egypt show the diversity of economies that participate in the transition process.

In Asia, Malaysia, Indonesia and Thailand among the upper-middle-income countries and the Philippines and Vietnam among the lower-middle-income countries show that TPI progress is not exclusive to economic progress or a privilege granted to European countries.

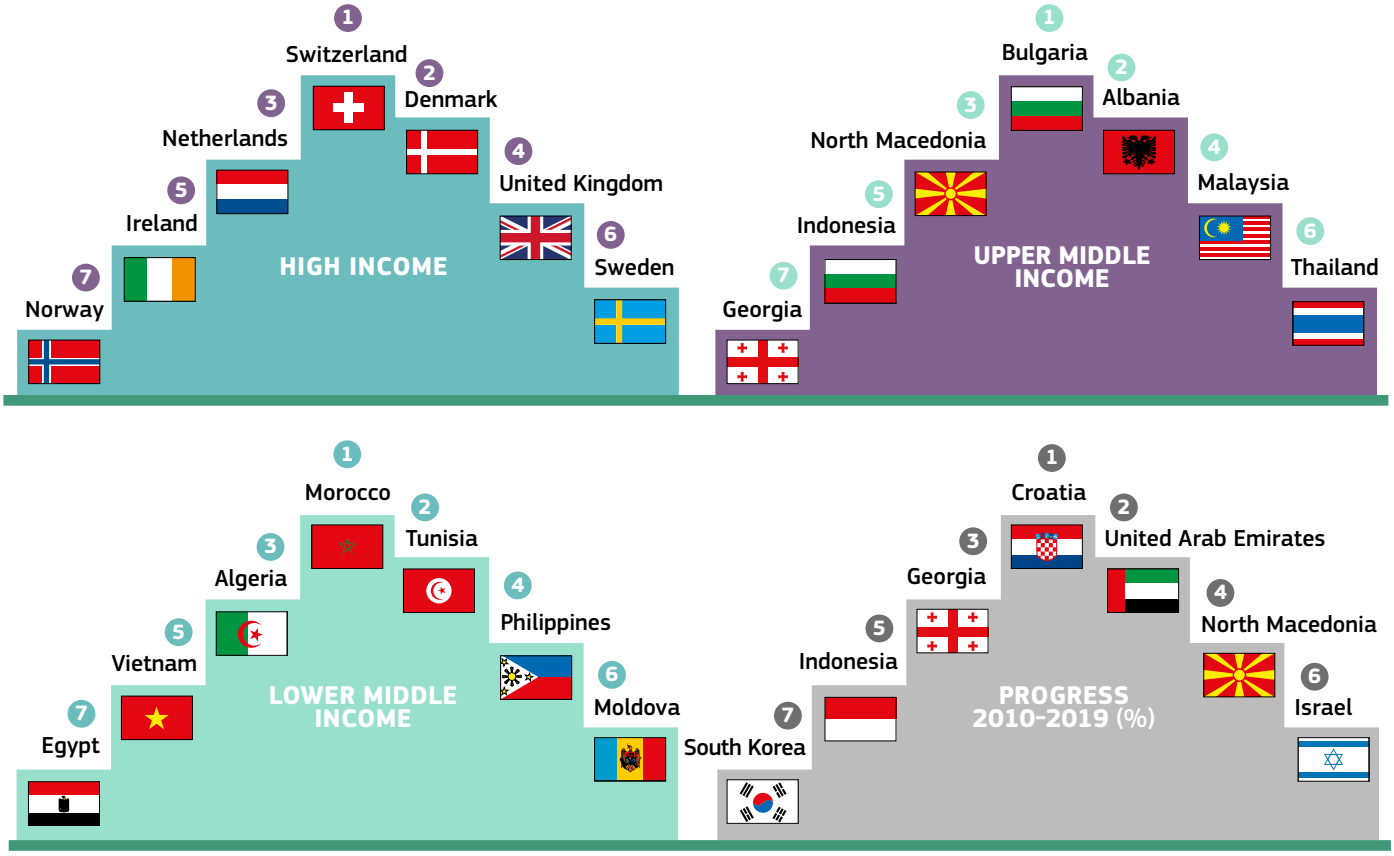
**Which countries perform best according to their income?**

Demonstrating the index's added value to GDP, middle-income countries have champions. Performance in transitions is not reserved for the happy few, and a progressive decoupling between the transition process and GDP growth seems possible (**Figure I**).

**Which countries have the highest rate of progress?**

Since 2010, the most rapid improvements have taken place in different regions of the world, from South Korea to Croatia, which tops the league, stimulated by its EU accession (**Figure I**).

**FIGURE I: Global TPI top 7 performers by income group and progress rate**



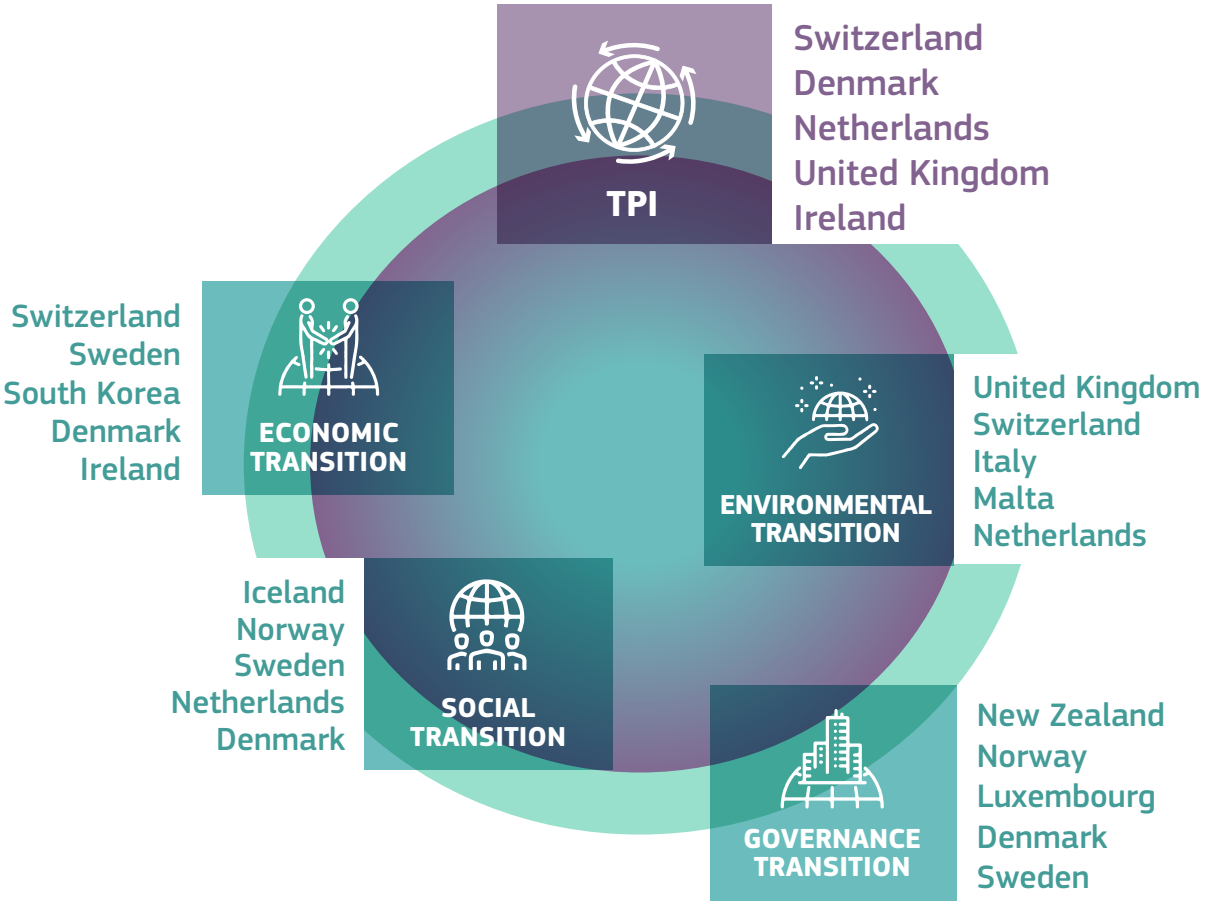

*Source: European Commission, Transitions Performance Index 2020.*

## TPI GLOBAL PERSPECTIVE

### BEST PERFORMING COUNTRIES IN ECONOMICS, SOCIAL, ENVIRONMENTAL AND GOVERNANCE TRANSITIONS

**Which countries perform the best by pillar?**
The differences in levels and trends in relative performance across pillars illustrate the multidimensional nature of the transitions challenge. While the public benefits from progress in each dimension, countries may take advantage of their strengths to make progress on their relative weaknesses (**Figure J**).

**FIGURE J: Global TPI Top 5 performers by transition pillar**



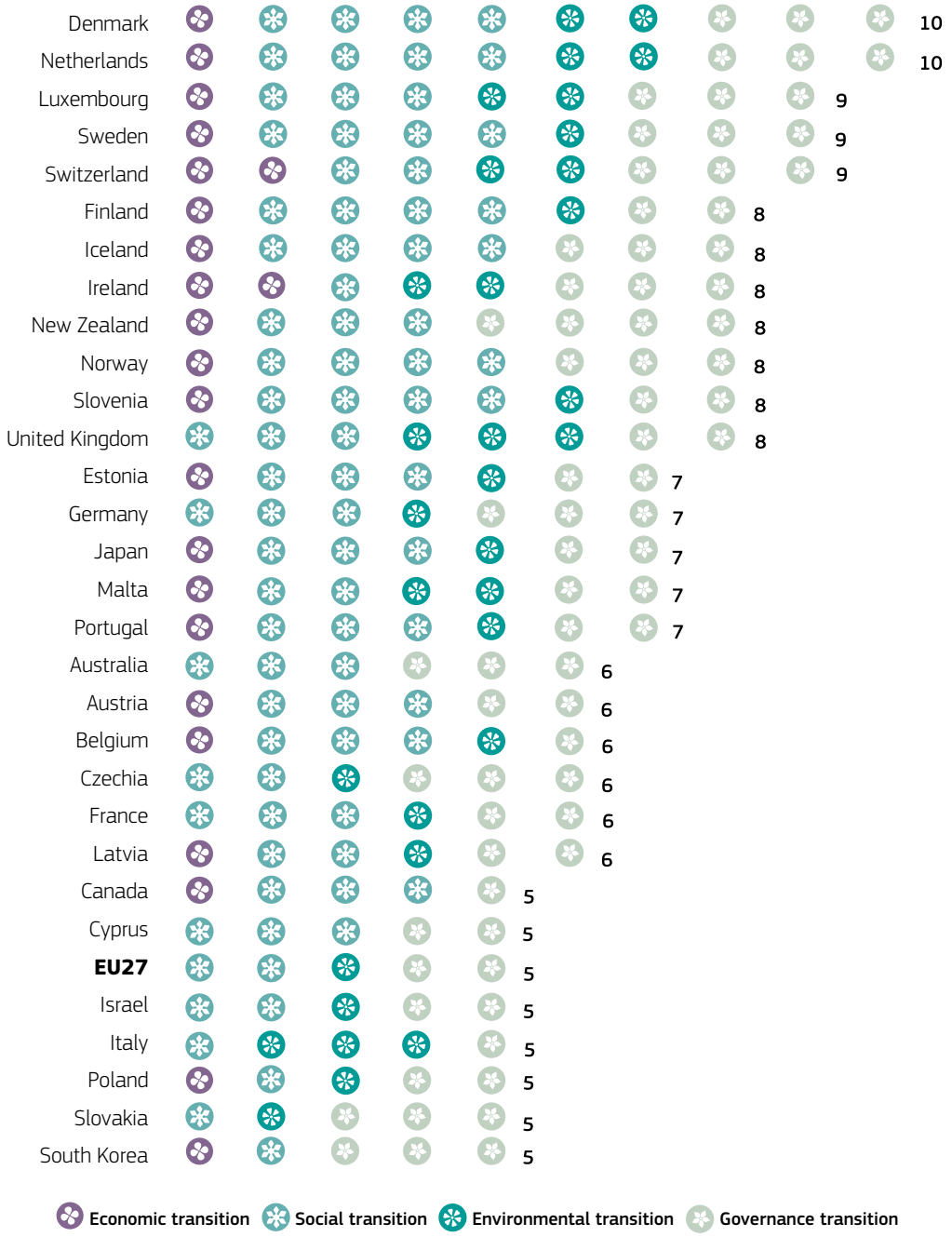

*Source: European Commission, Transitions Performance Index 2020.*

## TPI GLOBAL PERSPECTIVE

### COUNTRIES SUCCEEDING IN SEVERAL TRANSITIONS

**Which countries achieve leadership in most transitions?**
Some countries succeed in joining the leaders in some transitions even if they are not the top TPI performers (**Figure K**). The TPI country profiles (**Appendix II**) pinpoint strengths and weaknesses. Focus in catching-up while avoiding imbalances is important to maintain the economic and social consensus needed for the overall transition process to be successful.

**FIGURE K: Countries with five or more leader positions in the 16 sub-pillars**




*Source: European Commission, Transitions Performance Index 2020.*
*Note: leader positions are assisgned to all sub-pillars scores between 75 and 100*

# TRANSITIONS PERFORMANCE INDEX RANKINGS

## TABLE A: Transitions Performance Index scores in the four transitions

| | COUNTRY | | 2019 TRANSITIONS SCORES | | | | | ESG GAP | PROGRESS |
|---|---|---|---|---|---|---|---|---|---|
| RANK | CODE | NAME | TPI | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE | (% OF TPI) | 2010-2019 |
| 1 | CH | Switzerland | 81.4 | 80.0 | 80.5 | 81.4 | 83.4 | 2.2% | 7.9% |
| 2 | DK | Denmark | 77.4 | 71.6 | 84.3 | 72.2 | 83.8 | 9.4% | 5.8% |
| 3 | NL | Netherlands | 76.5 | 65.0 | 84.5 | 74.5 | 82.1 | 18.8% | 9.4% |
| 4 | UK | United Kingdom | 75.0 | 54.9 | 77.5 | 83.1 | 77.7 | 33.4% | 7.9% |
| 5 | IE | Ireland | 74.0 | 70.0 | 76.3 | 71.9 | 78.4 | 6.8% | 10.4% |
| 6 | SE | Sweden | 73.8 | 75.2 | 85.7 | 59.2 | 83.7 | -2.3% | 4.5% |
| 7 | NO | Norway | 72.8 | 66.7 | 86.4 | 59.3 | 85.9 | 10.5% | 6.1% |
| 8 | MT | Malta | 72.4 | 58.7 | 78.6 | 75.6 | 74.0 | 23.6% | 7.2% |
| 9 | DE | Germany | 72.3 | 69.3 | 80.3 | 64.3 | 79.7 | 5.3% | 6.5% |
| 10 | LU | Luxembourg | 71.1 | 66.3 | 75.1 | 61.3 | 85.2 | 8.3% | 10.0% |
| 11 | AT | Austria | 71.0 | 69.7 | 79.7 | 61.6 | 78.3 | 2.2% | 5.6% |
| 12 | FR | France | 70.6 | 59.6 | 79.8 | 68.3 | 75.1 | 19.5% | 5.6% |
| 13 | SI | Slovenia | 70.4 | 65.5 | 83.1 | 60.8 | 77.8 | 8.7% | 4.8% |
| 14 | BE | Belgium | 70.3 | 68.2 | 80.0 | 63.4 | 73.7 | 3.7% | 7.3% |
| 15 | JP | Japan | 70.0 | 65.3 | 79.3 | 65.4 | 72.6 | 8.4% | 8.2% |
| 16 | IT | Italy | 68.8 | 57.8 | 68.7 | 77.0 | 66.2 | 20.0% | 8.3% |
| | **EU27** | **European Union** | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 | 13.5% | 6.5% |
| 17 | CZ | Czechia | 67.7 | 61.2 | 80.0 | 56.9 | 78.3 | 12.1% | 8.6% |
| 18 | ES | Spain | 67.6 | 52.5 | 73.7 | 68.5 | 73.7 | 27.9% | 5.6% |
| 19 | FI | Finland | 67.5 | 68.0 | 82.4 | 49.0 | 81.2 | -0.9% | 3.2% |
| 20 | PT | Portugal | 65.8 | 52.4 | 75.7 | 62.2 | 73.6 | 25.5% | 2.9% |
| 21 | SK | Slovakia | 65.0 | 51.1 | 74.6 | 62.7 | 71.5 | 26.7% | 9.5% |
| 22 | KR | South Korea | 64.5 | 75.1 | 72.9 | 44.7 | 76.8 | -20.7% | 12.0% |
| 23 | LV | Latvia | 64.2 | 53.1 | 67.9 | 67.2 | 65.8 | 21.6% | 5.8% |
| 24 | HR | Croatia | 64.0 | 49.9 | 68.3 | 65.6 | 69.7 | 27.5% | 20.5% |
| 25 | LT | Lithuania | 63.8 | 53.4 | 66.4 | 64.8 | 68.6 | 20.4% | 6.8% |
| 26 | PL | Poland | 63.6 | 55.3 | 70.8 | 57.6 | 72.8 | 16.3% | 7.6% |
| 27 | EE | Estonia | 63.3 | 60.4 | 74.4 | 47.2 | 79.2 | 5.7% | 9.5% |
| 28 | HU | Hungary | 62.8 | 57.1 | 70.5 | 62.7 | 61.4 | 11.5% | 0.5% |
| 29 | IL | Israel | 62.7 | 59.4 | 71.9 | 52.4 | 72.3 | 6.6% | 12.2% |
| 30 | IS | Iceland | 61.8 | 66.4 | 90.1 | 29.1 | 81.1 | -9.4% | 1.6% |
| 31 | CY | Cyprus | 61.6 | 48.4 | 78.5 | 54.2 | 68.8 | 26.7% | 1.7% |
| 32 | SG | Singapore | 61.6 | 69.3 | 55.3 | 51.3 | 74.7 | -15.7% | 3.1% |
| 33 | NZ | New Zealand | 61.2 | 55.8 | 78.9 | 36.0 | 86.6 | 11.0% | 4.7% |
| 34 | EL | Greece | 60.5 | 45.9 | 67.1 | 65.2 | 60.2 | 30.1% | 5.6% |
| 35 | RO | Romania | 58.9 | 41.3 | 61.6 | 61.6 | 67.1 | 37.4% | 7.5% |
| 36 | AU | Australia | 58.3 | 54.6 | 77.5 | 32.5 | 81.9 | 7.9% | 5.2% |
| 37 | BG | Bulgaria | 56.7 | 42.1 | 62.1 | 55.1 | 66.5 | 32.3% | 4.5% |
| 38 | US | United States | 56.7 | 65.7 | 62.7 | 42.8 | 64.1 | -19.8% | 8.2% |
| 39 | AL | Albania | 56.2 | 24.8 | 64.4 | 71.7 | 52.9 | 69.8% | 6.2% |
| 40 | CA | Canada | 55.8 | 60.0 | 76.2 | 28.2 | 74.9 | -9.3% | 2.9% |
| 41 | AE | United Arab Emirates | 55.3 | 42.6 | 71.3 | 45.0 | 67.0 | 28.7% | 16.6% |
| 42 | MK | North Macedonia | 54.7 | 34.1 | 60.0 | 57.9 | 62.3 | 47.1% | 12.6% |
| 43 | MY | Malaysia | 54.1 | 46.8 | 60.2 | 50.1 | 60.6 | 16.9% | 9.9% |
| 44 | ID | Indonesia | 53.5 | 28.0 | 57.5 | 58.3 | 64.2 | 59.7% | 12.4% |
| 45 | CL | Chile | 53.3 | 42.0 | 58.2 | 44.9 | 70.2 | 26.5% | 3.8% |
| 46 | TH | Thailand | 52.7 | 45.1 | 65.0 | 52.4 | 49.4 | 18.0% | 8.1% |
| 47 | MA | Morocco | 51.5 | 32.8 | 47.5 | 63.6 | 52.7 | 45.4% | 9.7% |
| 48 | TN | Tunisia | 51.1 | 37.9 | 54.0 | 55.5 | 53.4 | 32.3% | 7.6% |
| 49 | DZ | Algeria | 50.2 | 37.1 | 57.2 | 55.1 | 48.1 | 32.5% | -2.8% |
| 50 | GE | Georgia | 49.9 | 27.7 | 58.6 | 48.5 | 62.7 | 55.6% | 14.7% |
| | **WD** | **World** | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 | 9.1% | 5.4% |
| 51 | CN | China | 49.4 | 52.9 | 64.7 | 36.2 | 52.7 | -8.9% | 9.9% |
| 52 | TR | Turkey | 48.7 | 41.1 | 49.9 | 51.7 | 49.5 | 19.4% | 6.1% |
| 53 | ME | Montenegro | 48.4 | 21.2 | 59.6 | 50.0 | 59.0 | 70.3% | 9.5% |
| 54 | PH | Philippines | 48.3 | 24.4 | 49.8 | 62.2 | 46.7 | 61.7% | 8.8% |
| 55 | CO | Colombia | 48.2 | 29.9 | 50.3 | 65.8 | 36.7 | 47.6% | 9.3% |
| 56 | VN | Vietnam | 47.6 | 28.6 | 67.2 | 47.1 | 47.8 | 49.8% | 8.0% |
| 57 | AM | Armenia | 47.5 | 25.8 | 59.9 | 46.2 | 56.6 | 57.2% | 2.9% |
| 58 | RS | Serbia | 47.4 | 37.6 | 61.1 | 38.2 | 57.0 | 25.8% | 5.5% |
| 59 | MD | Moldova | 47.3 | 40.7 | 60.9 | 41.0 | 50.6 | 17.6% | 7.6% |
| 60 | SA | Saudi Arabia | 46.5 | 53.9 | 41.3 | 37.8 | 56.7 | -19.9% | 7.8% |
| 61 | AR | Argentina | 46.3 | 36.3 | 49.3 | 48.8 | 48.2 | 26.8% | 3.6% |
| 62 | EG | Egypt | 46.2 | 28.1 | 47.4 | 55.8 | 46.2 | 49.0% | 1.0% |
| 63 | IN | India | 45.9 | 28.9 | 39.7 | 52.1 | 55.7 | 46.3% | 5.3% |
| 64 | MX | Mexico | 45.3 | 36.5 | 52.4 | 54.9 | 33.2 | 24.3% | 5.0% |
| 65 | UA | Ukraine | 44.3 | 41.8 | 66.3 | 33.8 | 43.5 | 7.1% | -1.4% |
| 66 | BA | Bosnia and Herzegovina | 43.3 | 22.5 | 51.9 | 40.3 | 57.3 | 59.9% | 1.5% |
| 67 | BR | Brazil | 43.2 | 39.4 | 47.9 | 47.3 | 36.8 | 11.1% | -2.3% |
| 68 | RU | Russia | 42.9 | 45.9 | 62.0 | 33.8 | 37.9 | -8.9% | 7.4% |
| 69 | KE | Kenya | 41.9 | 19.5 | 53.8 | 48.4 | 41.4 | 67.0% | 2.1% |
| 70 | IR | Iran | 40.4 | 32.3 | 44.8 | 42.5 | 40.2 | 24.8% | 4.1% |
| 71 | ZA | South Africa | 36.3 | 37.7 | 26.0 | 38.5 | 40.3 | -4.8% | 2.2% |
| 72 | NG | Nigeria | 36.1 | 13.4 | 33.3 | 57.2 | 26.8 | 78.7% | 3.3% |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Notes: (1) 'ESG gap (% of TPI)' refers to the difference between the sum of the social, environmental, and governance (ESG) weighted scores and the economic pillar score, as a percentage of the TPI score, in 2019. (2) 'Progress 2010-19' refers to the growth of TPI scores between 2010 and 2019.

Source: European Commission, Transitions Performance Index 2020.

## TABLE B: Transitions Performance Index scores and progress (2010-2019)

| COUNTRY | | | PROGRESS | 2010-2019 TPI SCORES | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RANK | CODE | NAME | 2010-2019 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 |
| 1 | CH | Switzerland | 7.9% | 81.4 | 80.9 | 80.2 | 79.4 | 79.0 | 78.4 | 77.1 | 77.5 | 76.7 | 75.5 |
| 2 | DK | Denmark | 5.8% | 77.4 | 76.6 | 76.4 | 76.6 | 76.5 | 75.6 | 74.7 | 74.5 | 73.7 | 73.2 |
| 3 | NL | Netherlands | 9.4% | 76.5 | 76.1 | 75.4 | 74.3 | 73.1 | 72.9 | 72.1 | 71.4 | 71.1 | 69.9 |
| 4 | UK | United Kingdom | 7.9% | 75.0 | 74.3 | 73.7 | 73.2 | 73.1 | 72.2 | 71.1 | 70.8 | 70.4 | 69.5 |
| 5 | IE | Ireland | 10.4% | 74.0 | 73.7 | 73.5 | 73.0 | 73.4 | 70.7 | 68.6 | 68.7 | 69.0 | 67.1 |
| 6 | SE | Sweden | 4.5% | 73.8 | 73.2 | 72.8 | 72.5 | 72.5 | 71.8 | 71.5 | 71.8 | 71.3 | 70.6 |
| 7 | NO | Norway | 6.1% | 72.8 | 71.4 | 71.5 | 71.1 | 70.0 | 70.0 | 68.7 | 69.5 | 68.1 | 68.7 |
| 8 | MT | Malta | 7.2% | 72.4 | 71.8 | 71.4 | 70.8 | 70.9 | 69.3 | 69.4 | 65.4 | 66.9 | 67.5 |
| 9 | DE | Germany | 6.5% | 72.3 | 72.2 | 71.5 | 70.4 | 70.5 | 70.0 | 69.2 | 69.1 | 68.7 | 67.9 |
| 10 | LU | Luxembourg | 10.0% | 71.1 | 70.6 | 69.7 | 69.2 | 68.6 | 68.1 | 67.8 | 67.4 | 65.9 | 64.6 |
| 11 | AT | Austria | 5.6% | 71.0 | 70.8 | 70.4 | 70.1 | 69.9 | 69.8 | 68.7 | 68.2 | 67.5 | 67.3 |
| 12 | FR | France | 5.6% | 70.6 | 70.1 | 69.8 | 69.4 | 68.9 | 68.8 | 68.2 | 67.8 | 67.2 | 66.8 |
| 13 | SI | Slovenia | 4.8% | 70.4 | 69.9 | 69.4 | 69.2 | 68.2 | 68.4 | 68.4 | 68.3 | 67.7 | 67.2 |
| 14 | BE | Belgium | 7.3% | 70.3 | 70.0 | 69.6 | 68.9 | 68.6 | 68.4 | 67.5 | 67.2 | 65.9 | 65.5 |
| 15 | JP | Japan | 8.2% | 70.0 | 69.4 | 68.9 | 67.8 | 67.8 | 67.0 | 66.2 | 65.6 | 64.9 | 64.6 |
| 16 | IT | Italy | 8.3% | 68.8 | 68.4 | 68.1 | 67.6 | 66.7 | 66.7 | 66.1 | 64.7 | 63.7 | 63.5 |
| | **EU27** | **European Union** | 6.5% | 68.8 | 68.4 | 68.0 | 67.5 | 67.2 | 66.9 | 66.0 | 65.6 | 65.0 | 64.6 |
| 17 | CZ | Czechia | 8.6% | 67.7 | 67.3 | 66.8 | 66.4 | 66.1 | 65.6 | 64.3 | 63.7 | 63.2 | 62.4 |
| 18 | ES | Spain | 5.6% | 67.6 | 67.0 | 66.7 | 66.4 | 65.5 | 65.3 | 65.1 | 64.8 | 64.3 | 64.0 |
| 19 | FI | Finland | 3.2% | 67.5 | 67.6 | 68.2 | 67.8 | 68.1 | 67.7 | 66.8 | 67.1 | 66.4 | 65.4 |
| 20 | PT | Portugal | 2.9% | 65.8 | 65.1 | 64.8 | 64.9 | 64.3 | 64.2 | 63.6 | 63.2 | 63.7 | 63.9 |
| 21 | SK | Slovakia | 9.5% | 65.0 | 64.3 | 63.5 | 63.9 | 63.8 | 62.5 | 61.2 | 61.1 | 60.1 | 59.3 |
| 22 | KR | South Korea | 12.0% | 64.5 | 63.9 | 63.4 | 62.2 | 61.3 | 61.0 | 60.5 | 59.9 | 58.3 | 57.5 |
| 23 | LV | Latvia | 5.8% | 64.2 | 64.0 | 64.0 | 63.8 | 63.6 | 62.9 | 62.4 | 61.4 | 61.0 | 60.6 |
| 24 | HR | Croatia | 20.5% | 64.0 | 63.8 | 62.6 | 63.2 | 62.7 | 60.2 | 58.4 | 55.0 | 54.4 | 53.1 |
| 25 | LT | Lithuania | 6.8% | 63.8 | 63.5 | 62.6 | 62.2 | 62.2 | 61.9 | 61.1 | 60.6 | 60.3 | 59.7 |
| 26 | PL | Poland | 7.6% | 63.6 | 62.9 | 62.7 | 62.8 | 63.3 | 62.6 | 61.0 | 60.3 | 59.3 | 59.1 |
| 27 | EE | Estonia | 9.5% | 63.3 | 62.3 | 61.7 | 61.1 | 61.4 | 59.3 | 58.1 | 59.0 | 58.4 | 57.8 |
| 28 | HU | Hungary | 0.5% | 62.8 | 62.2 | 62.1 | 62.7 | 62.6 | 62.9 | 62.7 | 62.9 | 62.6 | 62.5 |
| 29 | IL | Israel | 12.2% | 62.7 | 62.4 | 62.2 | 61.3 | 60.5 | 60.4 | 58.8 | 57.2 | 56.8 | 55.9 |
| 30 | IS | Iceland | 1.6% | 61.8 | 61.5 | 61.6 | 62.1 | 61.7 | 61.5 | 61.0 | 61.4 | 60.7 | 60.8 |
| 31 | CY | Cyprus | 1.7% | 61.6 | 61.2 | 61.9 | 61.3 | 60.9 | 60.3 | 60.9 | 59.4 | 60.6 | 60.5 |
| 32 | SG | Singapore | 3.1% | 61.6 | 61.4 | 60.6 | 60.4 | 60.2 | 60.3 | 60.6 | 61.0 | 61.5 | 59.7 |
| 33 | NZ | New Zealand | 4.7% | 61.2 | 60.8 | 60.4 | 59.8 | 59.2 | 58.7 | 58.6 | 58.9 | 58.8 | 58.4 |
| 34 | EL | Greece | 5.6% | 60.5 | 60.0 | 59.5 | 58.8 | 58.3 | 57.8 | 57.3 | 56.0 | 56.4 | 57.2 |
| 35 | RO | Romania | 7.5% | 58.9 | 58.8 | 58.6 | 58.4 | 56.6 | 56.3 | 55.8 | 54.9 | 55.9 | 54.8 |
| 36 | AU | Australia | 5.2% | 58.3 | 58.1 | 57.8 | 57.4 | 57.2 | 56.9 | 56.4 | 55.8 | 55.4 | 55.4 |
| 37 | BG | Bulgaria | 4.5% | 56.7 | 56.3 | 55.9 | 55.7 | 55.4 | 56.0 | 55.6 | 54.4 | 54.2 | 54.3 |
| 38 | US | United States | 8.2% | 56.7 | 56.2 | 56.0 | 54.9 | 54.6 | 54.0 | 53.8 | 53.9 | 52.9 | 52.4 |
| 39 | AL | Albania | 6.2% | 56.2 | 56.1 | 55.7 | 55.1 | 54.8 | 53.0 | 53.3 | 53.1 | 52.7 | 52.9 |
| 40 | CA | Canada | 2.9% | 55.8 | 55.5 | 55.4 | 55.2 | 54.8 | 54.7 | 54.4 | 54.7 | 54.3 | 54.3 |
| 41 | AE | United Arab Emirates | 16.6% | 55.3 | 55.0 | 54.6 | 53.7 | 52.9 | 52.4 | 51.2 | 49.6 | 48.9 | 47.4 |
| 42 | MK | North Macedonia | 12.6% | 54.7 | 54.4 | 52.9 | 53.0 | 52.8 | 51.7 | 50.7 | 49.2 | 48.8 | 48.6 |
| 43 | MY | Malaysia | 9.9% | 54.1 | 53.9 | 53.1 | 52.8 | 52.7 | 52.3 | 51.5 | 51.3 | 50.6 | 49.2 |
| 44 | ID | Indonesia | 12.4% | 53.5 | 53.0 | 52.1 | 52.0 | 51.0 | 50.6 | 49.3 | 48.7 | 47.8 | 47.6 |
| 45 | CL | Chile | 3.8% | 53.3 | 53.3 | 52.8 | 53.1 | 53.6 | 53.8 | 52.3 | 51.8 | 51.3 | 51.4 |
| 46 | TH | Thailand | 8.1% | 52.7 | 52.5 | 51.9 | 51.0 | 50.8 | 50.1 | 50.4 | 50.1 | 50.3 | 48.7 |
| 47 | MA | Morocco | 9.7% | 51.5 | 51.3 | 50.4 | 50.9 | 51.4 | 51.4 | 50.3 | 50.2 | 46.7 | 47.0 |
| 48 | TN | Tunisia | 7.6% | 51.1 | 51.0 | 50.9 | 51.9 | 51.8 | 50.7 | 50.2 | 49.6 | 48.5 | 47.6 |
| 49 | DZ | Algeria | -2.8% | 50.2 | 50.1 | 50.0 | 49.8 | 49.8 | 50.5 | 51.0 | 51.1 | 51.6 | 51.6 |
| 50 | GE | Georgia | 14.7% | 49.9 | 49.7 | 50.1 | 50.7 | 47.9 | 47.5 | 45.8 | 45.6 | 45.2 | 43.5 |
| | **WD** | **World** | 5.4% | 49.7 | 49.6 | 49.3 | 49.0 | 48.7 | 48.4 | 48.0 | 47.6 | 47.3 | 47.1 |
| 51 | CN | China | 9.9% | 49.4 | 49.5 | 49.1 | 48.5 | 48.1 | 47.4 | 46.9 | 45.9 | 45.6 | 44.9 |
| 52 | TR | Turkey | 6.1% | 48.7 | 48.6 | 47.8 | 47.5 | 48.3 | 48.1 | 48.2 | 47.0 | 46.9 | 45.9 |
| 53 | ME | Montenegro | 9.5% | 48.4 | 48.2 | 47.2 | 45.7 | 46.2 | 45.6 | 46.3 | 45.6 | 44.0 | 44.2 |
| 54 | PH | Philippines | 8.8% | 48.3 | 47.8 | 47.1 | 46.5 | 46.6 | 46.4 | 46.0 | 45.2 | 44.9 | 44.4 |
| 55 | CO | Colombia | 9.3% | 48.2 | 48.7 | 48.2 | 47.4 | 47.3 | 46.0 | 45.2 | 46.3 | 45.4 | 44.1 |
| 56 | VN | Vietnam | 8.0% | 47.6 | 47.8 | 47.8 | 47.6 | 47.5 | 47.3 | 46.7 | 46.0 | 44.6 | 44.1 |
| 57 | AM | Armenia | 2.9% | 47.5 | 47.2 | 45.8 | 45.2 | 45.2 | 45.4 | 46.0 | 46.0 | 46.0 | 46.1 |
| 58 | RS | Serbia | 5.5% | 47.4 | 47.5 | 47.5 | 46.2 | 46.3 | 46.8 | 46.5 | 46.1 | 45.7 | 44.9 |
| 59 | MD | Moldova | 7.6% | 47.3 | 47.1 | 47.3 | 46.4 | 47.1 | 46.9 | 46.9 | 45.6 | 45.1 | 44.0 |
| 60 | SA | Saudi Arabia | 7.8% | 46.5 | 46.5 | 45.4 | 45.7 | 45.2 | 44.5 | 44.6 | 44.1 | 43.1 | 43.1 |
| 61 | AR | Argentina | 3.6% | 46.3 | 46.4 | 46.8 | 45.8 | 45.4 | 44.8 | 45.0 | 45.4 | 45.6 | 44.6 |
| 62 | EG | Egypt | 1.0% | 46.2 | 45.5 | 44.7 | 45.3 | 45.5 | 45.6 | 45.4 | 45.7 | 44.8 | 45.7 |
| 63 | IN | India | 5.3% | 45.9 | 45.9 | 45.7 | 45.4 | 44.8 | 44.4 | 44.2 | 43.8 | 43.5 | 43.6 |
| 64 | MX | Mexico | 5.0% | 45.3 | 45.2 | 45.0 | 45.4 | 45.5 | 45.0 | 43.8 | 43.6 | 43.1 | 43.1 |
| 65 | UA | Ukraine | -1.4% | 44.3 | 44.1 | 43.6 | 42.8 | 43.3 | 43.8 | 44.9 | 45.1 | 44.7 | 44.9 |
| 66 | BA | Bosnia and Herzegov | 1.5% | 43.3 | 43.2 | 43.2 | 43.1 | 43.2 | 43.3 | 43.4 | 42.3 | 42.6 | 42.7 |
| 67 | BR | Brazil | -2.3% | 43.2 | 43.1 | 42.6 | 42.9 | 43.4 | 43.8 | 43.7 | 43.5 | 44.1 | 44.2 |
| 68 | RU | Russia | 7.4% | 42.9 | 42.6 | 42.3 | 41.1 | 41.0 | 40.5 | 40.2 | 40.0 | 39.8 | 39.9 |
| 69 | KE | Kenya | 2.1% | 41.9 | 41.9 | 42.1 | 42.4 | 42.4 | 41.9 | 41.6 | 41.1 | 41.1 | 41.1 |
| 70 | IR | Iran | 4.1% | 40.4 | 40.6 | 40.7 | 40.0 | 38.6 | 38.5 | 38.5 | 38.2 | 38.7 | 38.8 |
| 71 | ZA | South Africa | 2.2% | 36.3 | 35.9 | 36.2 | 36.5 | 36.7 | 36.1 | 36.0 | 35.7 | 35.5 | 35.5 |
| 72 | NG | Nigeria | 3.3% | 36.1 | 37.1 | 37.2 | 37.2 | 37.5 | 37.0 | 36.6 | 35.7 | 35.8 | 34.9 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

Note: 'Progress 2010-19' refers to the percentage growth of TPI scores between 2010 and 2019.

Source: European Commission, Transitions Performance Index 2020.

## TABLE C: Transitions Performance Index rankings (2010-2019)

| COUNTRY | | | 2019 RANK | 2010-2019 TPI RANKS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RANK | CODE | NAME | INTERVAL | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 |
| 1 | CH | Switzerland | [1-1] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | DK | Denmark | [2-2] | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 3 | NL | Netherlands | [3-3] | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 4 | 4 | 4 |
| 4 | UK | United Kingdom | [4-6] | 4 | 4 | 4 | 4 | 5 | 4 | 5 | 5 | 5 | 5 |
| 5 | IE | Ireland | [4-6] | 5 | 5 | 5 | 5 | 3 | 6 | 10 | 8 | 6 | 11 |
| 6 | SE | Sweden | [4-7] | 6 | 6 | 6 | 6 | 6 | 5 | 4 | 3 | 3 | 3 |
| 7 | NO | Norway | [6-9] | 7 | 9 | 7 | 7 | 9 | 7 | 8 | 6 | 8 | 6 |
| 8 | MT | Malta | [6-10] | 8 | 8 | 9 | 8 | 7 | 10 | 6 | 16 | 12 | 8 |
| 9 | DE | Germany | [7-9] | 9 | 7 | 8 | 9 | 8 | 8 | 7 | 7 | 7 | 7 |
| 10 | LU | Luxembourg | [10-14] | 10 | 11 | 12 | 12 | 12 | 14 | 13 | 12 | 15 | 16 |
| 11 | AT | Austria | [10-12] | 11 | 10 | 10 | 10 | 10 | 9 | 9 | 10 | 10 | 9 |
| 12 | FR | France | [10-14] | 12 | 12 | 11 | 11 | 11 | 11 | 12 | 11 | 11 | 12 |
| 13 | SI | Slovenia | [12-16] | 13 | 14 | 14 | 13 | 14 | 12 | 11 | 9 | 9 | 10 |
| 14 | BE | Belgium | [12-14] | 14 | 13 | 13 | 14 | 13 | 13 | 14 | 13 | 14 | 13 |
| 15 | JP | Japan | [13-15] | 15 | 15 | 15 | 15 | 16 | 16 | 16 | 15 | 16 | 15 |
| 16 | IT | Italy | [15-18] | 16 | 16 | 17 | 17 | 17 | 17 | 17 | 18 | 19 | 19 |
| | **EU27** | **European Union** | [16-17] | 17 | 17 | 18 | 18 | 17 | 17 | 18 | 16 | 16 | 16 |
| 17 | CZ | Czechia | [16-18] | 17 | 18 | 18 | 18 | 18 | 18 | 19 | 19 | 20 | 21 |
| 18 | ES | Spain | [17-19] | 18 | 19 | 19 | 19 | 19 | 19 | 18 | 17 | 17 | 17 |
| 19 | FI | Finland | [16-20] | 19 | 17 | 16 | 16 | 15 | 15 | 15 | 14 | 13 | 14 |
| 20 | PT | Portugal | [19-21] | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 18 | 18 |
| 21 | SK | Slovakia | [21-22] | 21 | 21 | 22 | 21 | 21 | 24 | 23 | 24 | 27 | 27 |
| 22 | KR | South Korea | [20-28] | 22 | 23 | 23 | 27 | 29 | 27 | 29 | 28 | 31 | 31 |
| 23 | LV | Latvia | [21-26] | 23 | 22 | 21 | 22 | 22 | 22 | 22 | 23 | 23 | 23 |
| 24 | HR | Croatia | [23-27] | 24 | 24 | 25 | 23 | 24 | 31 | 32 | 35 | 36 | 38 |
| 25 | LT | Lithuania | [23-28] | 25 | 25 | 26 | 26 | 26 | 25 | 24 | 26 | 26 | 26 |
| 26 | PL | Poland | [24-26] | 26 | 26 | 24 | 24 | 23 | 23 | 26 | 27 | 28 | 28 |
| 27 | EE | Estonia | [23-30] | 27 | 28 | 30 | 31 | 28 | 32 | 33 | 30 | 30 | 30 |
| 28 | HU | Hungary | [25-31] | 28 | 29 | 28 | 25 | 25 | 21 | 21 | 21 | 21 | 20 |
| 29 | IL | Israel | [27-29] | 29 | 27 | 27 | 30 | 31 | 28 | 30 | 32 | 32 | 33 |
| 30 | IS | Iceland | [24-41] | 30 | 30 | 31 | 28 | 27 | 26 | 25 | 22 | 24 | 22 |
| 31 | CY | Cyprus | [30-33] | 31 | 32 | 29 | 29 | 30 | 30 | 27 | 29 | 25 | 24 |
| 32 | SG | Singapore | [29-33] | 32 | 31 | 32 | 32 | 32 | 29 | 28 | 25 | 22 | 25 |
| 33 | NZ | New Zealand | [30-35] | 33 | 33 | 33 | 33 | 33 | 33 | 31 | 31 | 29 | 29 |
| 34 | EL | Greece | [30-35] | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 33 | 33 | 32 |
| 35 | RO | Romania | [33-36] | 35 | 35 | 35 | 35 | 36 | 36 | 36 | 36 | 34 | 35 |
| 36 | AU | Australia | [34-43] | 36 | 36 | 36 | 36 | 35 | 35 | 35 | 34 | 35 | 34 |
| 37 | BG | Bulgaria | [34-39] | 37 | 37 | 38 | 37 | 37 | 37 | 37 | 38 | 38 | 36 |
| 38 | US | United States | [35-39] | 38 | 38 | 37 | 40 | 40 | 39 | 39 | 39 | 39 | 40 |
| 39 | AL | Albania | [36-45] | 39 | 39 | 39 | 39 | 38 | 41 | 40 | 40 | 40 | 39 |
| 40 | CA | Canada | [37-49] | 40 | 40 | 40 | 38 | 39 | 38 | 38 | 37 | 37 | 37 |
| 41 | AE | United Arab Emirates | [39-41] | 41 | 41 | 41 | 41 | 42 | 42 | 43 | 46 | 45 | 48 |
| 42 | MK | North Macedonia | [37-43] | 42 | 42 | 43 | 43 | 43 | 44 | 45 | 48 | 46 | 45 |
| 43 | MY | Malaysia | [38-44] | 43 | 43 | 42 | 44 | 44 | 43 | 42 | 42 | 43 | 43 |
| 44 | ID | Indonesia | [42-46] | 44 | 45 | 45 | 45 | 47 | 47 | 49 | 49 | 48 | 46 |
| 45 | CL | Chile | [42-46] | 45 | 44 | 44 | 42 | 41 | 40 | 41 | 41 | 42 | 42 |
| 46 | TH | Thailand | [42-46] | 46 | 46 | 46 | 47 | 48 | 49 | 46 | 45 | 44 | 44 |
| 47 | MA | Morocco | [46-50] | 47 | 47 | 48 | 48 | 46 | 45 | 47 | 44 | 50 | 49 |
| 48 | TN | Tunisia | [46-48] | 48 | 48 | 47 | 46 | 45 | 46 | 48 | 47 | 47 | 47 |
| 49 | DZ | Algeria | [48-51] | 49 | 49 | 50 | 50 | 49 | 48 | 44 | 43 | 41 | 41 |
| 50 | GE | Georgia | [49-53] | 50 | 50 | 49 | 49 | 52 | 51 | 58 | 58 | 56 | 64 |
| | **WD** | **World** | [48-52] | 51 | 51 | 51 | 51 | 50 | 50 | 51 | 50 | 49 | 49 |
| 51 | CN | China | [48-55] | 51 | 51 | 51 | 51 | 51 | 52 | 52 | 55 | 53 | 53 |
| 52 | TR | Turkey | [50-54] | 52 | 53 | 54 | 53 | 50 | 50 | 50 | 50 | 49 | 51 |
| 53 | ME | Montenegro | [52-63] | 53 | 54 | 57 | 59 | 58 | 59 | 55 | 57 | 63 | 58 |
| 54 | PH | Philippines | [51-60] | 54 | 55 | 58 | 55 | 56 | 56 | 57 | 61 | 58 | 57 |
| 55 | CO | Colombia | [50-61] | 55 | 52 | 52 | 54 | 54 | 57 | 60 | 51 | 55 | 60 |
| 56 | VN | Vietnam | [54-60] | 56 | 56 | 53 | 52 | 53 | 53 | 53 | 53 | 61 | 61 |
| 57 | AM | Armenia | [55-62] | 57 | 58 | 60 | 64 | 63 | 60 | 56 | 54 | 51 | 50 |
| 58 | RS | Serbia | [53-62] | 58 | 57 | 55 | 57 | 57 | 55 | 54 | 52 | 52 | 55 |
| 59 | MD | Moldova | [53-59] | 59 | 59 | 56 | 56 | 55 | 54 | 51 | 59 | 57 | 62 |
| 60 | SA | Saudi Arabia | [53-64] | 60 | 60 | 62 | 60 | 62 | 63 | 63 | 63 | 66 | 66 |
| 61 | AR | Argentina | [56-62] | 61 | 61 | 59 | 58 | 61 | 62 | 61 | 60 | 54 | 56 |
| 62 | EG | Egypt | [58-63] | 62 | 63 | 64 | 63 | 59 | 58 | 59 | 56 | 59 | 52 |
| 63 | IN | India | [60-65] | 63 | 62 | 61 | 61 | 64 | 64 | 64 | 64 | 64 | 63 |
| 64 | MX | Mexico | [60-65] | 64 | 64 | 63 | 62 | 60 | 61 | 65 | 65 | 65 | 65 |
| 65 | UA | Ukraine | [62-66] | 65 | 65 | 65 | 67 | 66 | 66 | 62 | 62 | 60 | 54 |
| 66 | BA | Bosnia and Herzegovina | [65-68] | 66 | 66 | 66 | 65 | 67 | 67 | 67 | 67 | 67 | 67 |
| 67 | BR | Brazil | [65-68] | 67 | 67 | 67 | 66 | 65 | 65 | 66 | 66 | 62 | 59 |
| 68 | RU | Russia | [66-69] | 68 | 68 | 68 | 69 | 69 | 69 | 69 | 69 | 69 | 69 |
| 69 | KE | Kenya | [68-70] | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| 70 | IR | Iran | [69-70] | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 71 | ZA | South Africa | [71-72] | 71 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 71 |
| 72 | NG | Nigeria | [71-72] | 72 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 72 |

Transition leader Strong transition Good transition Moderate transition Weak transition

Notes: (1) European Union and World are not ranked in the TPI, but referential ranks are provided. (2) Transition group colours are based on scores, not ranks (Table B). (3) 2019 rank intervals were computed by the European Commission Joint Research Centre as part of an independent statistical audit of the TPI (Appendix V); the smaller the interval, the more robust the rank.
Source: European Commission, Transitions Performance Index 2020.

# CONTRIBUTORS AND ACKNOWLEDGEMENTS

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# ANALYTICAL REPORT

## TRANSITIONS PERFORMANCE INDEX 2020

*BY PIERRE VIGIER & DANIELA BENAVENTE*

# INTRODUCTION

**The quest for sustainable prosperity is highly complex. The COVID-19 health crisis has reminded us even more strongly that we live in a world where all nations are confronted with common challenges. As European Commission President von der Leyen stated 'it brought into sharper focus the planetary fragility that we see every day through melting glaciers, burning forests and now through global pandemics.'[1]**

The European Union has defined a clear agenda to meet these challenges: develop economies that work for people, promote the European way of life, implement a European Green Deal and give a new push for European democracy. This agenda has the ambition to create the conditions to progress in achieving the United Nations Sustainable Development Goals and to make our society more inclusive and resilient.

The Transitions Performance Index (TPI) presented in this report focuses on the four transitions needed in the economy, the social sphere, the environment and in governance to progress towards these goals. It does so for EU Member States while allowing comparisons around the globe, as sustainable prosperity can only be achieved on a global level. The tools with which to measure these issues include Eurostat's 110 indicators on sustainable development in the European Union[2]. However, the TPI is unique in its scope, in its global dimension covering 91 % of world GDP, in its 10 years of data (2010-2019), allowing to analyse performance and progress in its ranking of countries on a comparable basis.

The independent statistical audit performed by the Join Research Centre validated the statistical methodology and the robustness of results. Based mostly on hard data, the choice of indicators has been guided by the principles of relevance to the topic, international comparability, parsimony, distinctiveness, and non-redundancy. A total of 25 indicators were selected, 20 hard data and 5 indices, computed by a series of specialised international organisations (such as the World Bank, the IMF and United Nations specialised agencies) and NGOs.

The methodology is public and the data accessible in order to build confidence in its impartiality and to facilitate input for further improvement. This allows us to present a scoreboard ranking countries according to their progress in the four dimensions and their combined impact[3].
The Transitions Performance Index is thus a powerful tool[4] for measuring progress, recognising efforts, and indicating where more has to be done.[5]

The role of the index is not to prescribe what policy mix to choose, but to monitor the state of countries in terms of outcomes. It offers an evidence base for all who are striving towards fair and sustainable prosperity.

1 European Commission President von der Leyen , State of the European Union, Building the world we want to live in: A Union of vitality in a world of fragility , 16 September 2020, https://ec.europa.eu/commission/presscorner / detail / ov / SPEECH_20_1655
2 https://ec.europa.eu/eurostat/documents/3217494/11011074/KS-02-20-202-EN-N.pdf/334a8cfe-636a-bb8a-294a-73a052882f7f
3 The TPI is focused on impact in order to inform citizens on how policy mixes in their country affect positively or negatively their quality of life and future.
4 The European Innovation Scoreboard, with its annual Summary Innovation Index, demonstrated the potential impact of giving such visibility to the progress and ranking of countries in the domain covered by that scoreboard see section IX.2.
5 The report 'A system change compass' (October 2020) sets recommendations to support the implementation of the European Green Deal that largely inspired the conceptual framework of the TPI. It calls for "redefining prosperity (Embracing social fairness for real prosperity)", "redefining metrics (replace GDP with a new, comprehensive well-being measure that also integrates social and environmental needs)". The TPI constitutes a first step in such a redefinition of metrics. The report also urges "that all relevant stakeholders have voice, agree and share the ownership of necessary system change". The transparency and the global approach of the TPI respond to this concern. https://clubofrome.org/wp-content/uploads/2020/10/System-Change-Compass-Full-report-FINAL.pdf

# I. OVERVIEW

# I. OVERVIEW

**The Transitions Performance Index 2020 provides a snapshot of 72 countries in the world and where they stand in their progress towards a fair and sustainable prosperity model. These countries represent more than 90 % of world GDP (in percentage points or pps). This progress is measured along four transitions: economic, social, environmental and governance (Table 1).**

Each of the four dimensions has a strong internal logic proven by the statistical behaviour of its components, while the overall ranking provides additional information on the success of policy mixes in balancing these transitions and in deriving maximum benefit from policy space. Therefore, all five rankings (TPI score, plus the score in each of its four pillars) provide important information.

Chapters II and III of this report concentrate on the results of the index itself, while the four chapters that follow analyse the various transitions, as covered by the TPI (Chapters IV to VII). Chapter VIII analyses performance by income groups and regional dimensions, while Chapter IX offers avenues for reflection on open questions and linkages for future analysis.

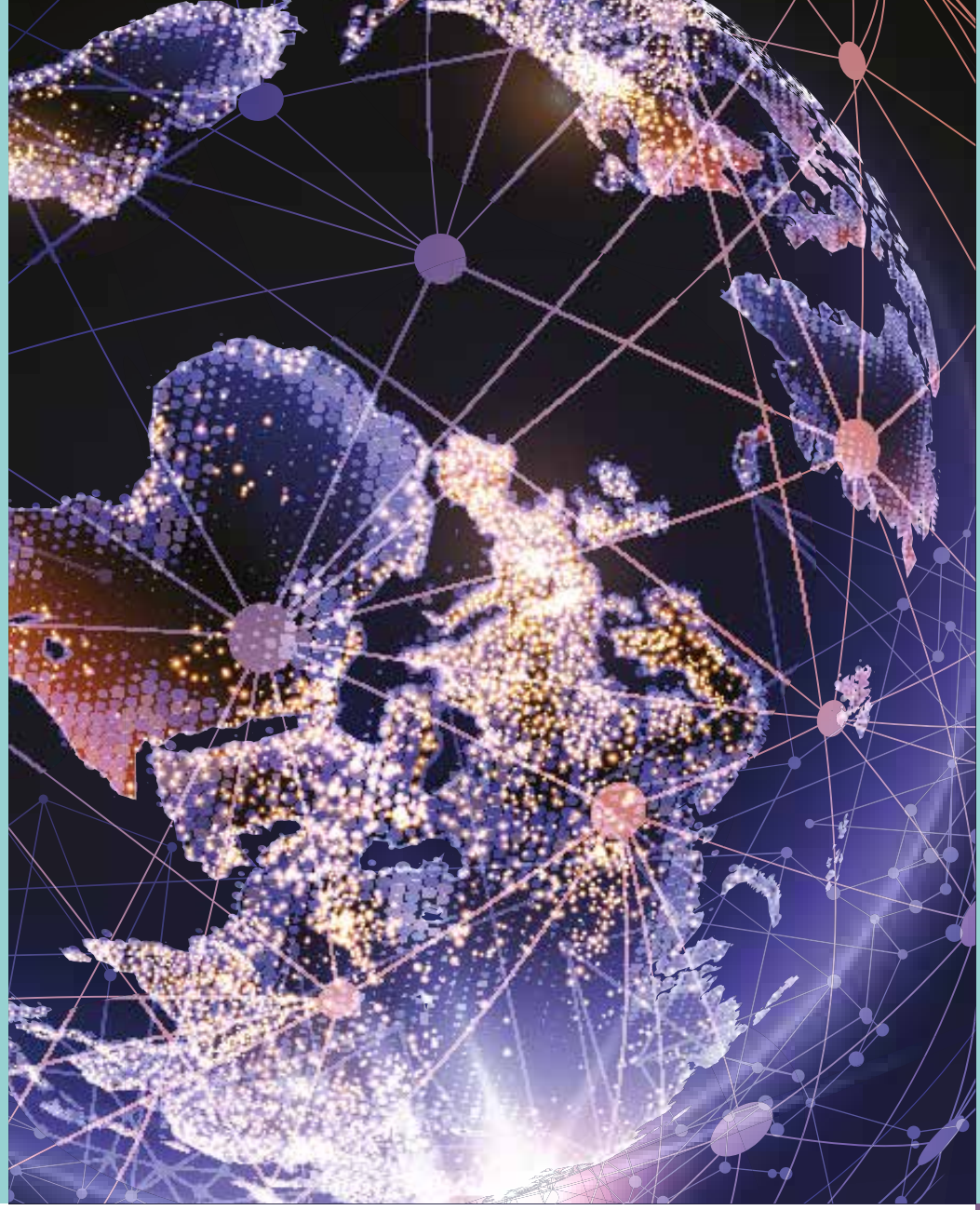
**Several key features emerge from the TPI results:**

- While not being unduly volatile, the TPI shows that most countries have progressed over the past 10 years; there is no fatality of lagging behind.
- Each pillar presents specific characteristics resulting from the conceptual framework; most countries achieve leader or strong performance in at least one dimension or indicator.
- EU countries show good performance overall, with progress in all EU countries between 2010 and 2019.
- The TPI does not present geographical predetermination; there is no clear-cut North-South, East-West divide, including on the European continent.
- The TPI adds value to GDP as a measure of prosperity. Countries with low GDP per capita succeed in being among the top third either in the TPI or in some of its pillars, showing that there is room for efficiency in transition policies.
- The TPI provides a sound and robust metric to test assumptions; as shown with the important linkages found with digitalisation, trade, and resilience.
- The TPI tables and country profiles illustrate strengths and weaknesses, making it possible to contextualise the debates for policy priorities.

**TABLE 1: TPI conceptual framework and indicators**

| TRANSITIONS PERFORMANCE INDEX | | | |
|---|---|---|---|
| **ECONOMIC TRANSITION**<br>Making the economy work for prosperity | **SOCIAL TRANSITION**<br>Focusing on fairness and inclusion | **ENVIRONMENTAL TRANSITION**<br>Supporting the European Green Deal objectives | **GOVERNANCE TRANSITION**<br>A new push for democracy |
| **Education**<br>Government expenditure in education per student (% of GDP per capita) | **Health**<br>Healthy life expectancy at birth (years) | **Emissions reduction**<br>Gross greenhouse gas emissions (tonnes per capita) | **Fundamental rights**<br>Voice and accountability index and rule of law index |
| **Wealth**<br>Gross domestic product (GDP) per capita, current dollars (PPP$) | **Work and inclusion**<br>Employment rate of population 20-64 (%), Employment-to-population ratio gender gap 25+ (%), and Early childhood care and education (%) | **Biodiversity**<br>Terrestrial and freshwater key biodiversity areas protected (%) and pesticides use per area of cropland (kg/a) | **Security**<br>Homicide rate (per 100,000 inhabitants) |
| **Labour productivity and R&D intensity**<br>Output per worker (2011 constant GDP PPP$) and gross expenditure on R&D (% of GDP) | **Free or non-remunerated time**<br>Free or non-remunerated time (%) | **Resource productivity**<br>Resource productivity (PPP$ per kg): GDP (PPP$) per unit of domestic material consumption (DMC) of raw materials (kg) | **Transparency**<br>Corruption Perceptions Index and Basel Money Laundering Index |
| **Industrial base**<br>Gross value added of manufacturing (% of GDP) and patent families filed in two offices (per billion PPP$ GDP) | **Equality**<br>Gini coefficient of disposable income, post taxes and transfers and Income share held by the poorest quintile (%) | **Energy productivity**<br>Energy productivity (PPP$ per koe): GDP (PPP$) per unit of energy use (kilogram of oil equivalent, koe) | **Sound public finances**<br>General government gross debt (% of GDP) |

*Source: European Commission, Transitions Performance Index 2020.*



# II. PERFORMANCE OF EU MEMBER STATES

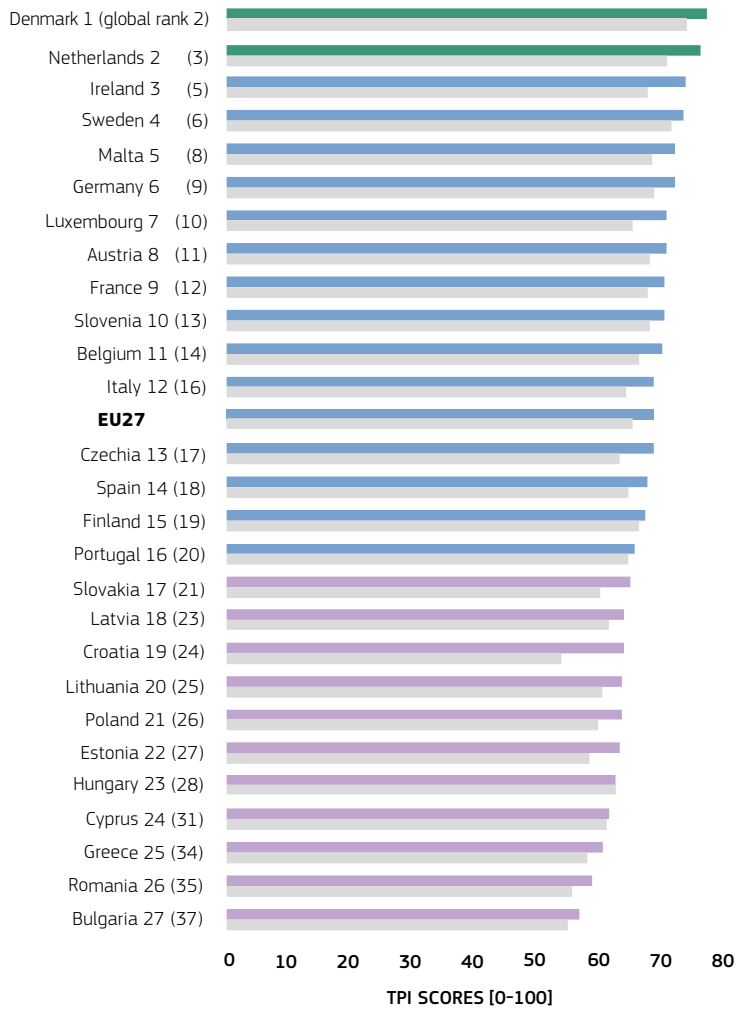
# II. PERFORMANCE OF EUROPEAN UNION MEMBER STATES

**The four transitions (economic, social, environmental and governance) contribute jointly to defining a path towards a balanced situation whereby the quality of life is sustainably better.**

The European Union has set an ambitious agenda in this respect and has committed to further pursue and enhance this agenda. In the middle of the COVID-19 crisis, European Commission President Ursula von der Leyen declared: 'We chose to pull each other through and invest in a common future. (…) In past crises, the better-off survived while the most vulnerable paid a heavy price. But this time it has to be different. This time, we can only get back to our feet if we all pull each other up.'

A reference basis is a prerequisite for designing evidence-based public policies. The TPI, by presenting 10 years of data on transitions performance and progress, constitutes such a reference. It is also a measure of the degree of success of the policies that have been implemented. This chapter presents the TPI rankings and scores for the EU, thereby helping to monitor its progress towards fair and sustainable prosperity, while chapter II presents the global results (for 72 countries).

**FIGURE 1: European Union Member States ranking and transition groups**




Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

Note: The number in parenthesis indicates the TPI global rank.

Source: European Commission, Transitions Performance Index 2020.

All EU countries belong to either the group of transition leaders or the strong or good transition groups. None belongs to the moderate or weak transition groups (**Figure 1**). This performance is achieved while the different groups are defined with similar score intervals and a normal distribution. This is therefore a robust indication of the overall positive impact of EU orientations.

Two Member States of the so-called 'friends of the cohesion group' (Malta and Slovenia) perform better than the EU average, while Denmark (ranking first among EU countries) and the Netherlands are transition leaders. Most EU countries (16) are either transition leaders or in strong transition.

***Progress over the 2010-2019 decade***

**Table 2** shows that all EU countries have improved their performance since 2010, particularly Croatia, which showed an exceptional result of catching up (20.5%), and Ireland and Luxembourg (progress above 10%). The sharp increase in the Netherlands's TPI score demonstrates that a country can continue to progress even from a leading position, while many strong performers continue to progress at high speed. A large number (Ireland, Luxembourg, Slovakia, Estonia, the Netherlands, Czechia, Italy, Poland, Romania, Belgium, Malta, Lithuania, and Germany) progressed above the EU average (6.5%). Latvia, Denmark, Spain, Greece, France, Austria, Slovenia, Sweden, and Bulgaria all progressed above 4%.

In contrast, strong performers such as Portugal, Finland, Sweden and Slovenia seem to have come to a standstill and are at risk of losing ground in the transition process unless they renew collective efforts. Within the EU, Hungary stands apart for its relative stagnation (0.5%).

***Performance in the four transitions***

When looking at the performance by pillar, EU Member States have not progressed sufficiently in economic and environmental transitions (**Table 2**). Pursuing ambitious targets and related investments in these domains is an absolute necessity if the EU and Member States wish to achieve balanced and sustainable prosperity.

**TABLE 2: European Union TPI ranking, pillar scores and transition groups**

| RANK | | COUNTRY | 2019 TRANSITIONS SCORES | | | | | PROGRESS | ESG GAP |
|---|---|---|---|---|---|---|---|---|---|
| EU | TPI | NAME | TPI | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE | 2010-2019 | (% OF TPI) |
| 1 | 2 | Denmark | 77.4 | 71.6 | 84.3 | 72.2 | 83.8 | 5.8% | 9.4% |
| 2 | 3 | Netherlands | 76.5 | 65.0 | 84.5 | 74.5 | 82.1 | 9.4% | 18.8% |
| 3 | 5 | Ireland | 74.0 | 70.0 | 76.3 | 71.9 | 78.4 | 10.4% | 6.8% |
| 4 | 6 | Sweden | 73.8 | 75.2 | 85.7 | 59.2 | 83.7 | 4.5% | -2.3% |
| 5 | 8 | Malta | 72.4 | 58.7 | 78.6 | 75.6 | 74.0 | 7.2% | 23.6% |
| 6 | 9 | Germany | 72.3 | 69.3 | 80.3 | 64.3 | 79.7 | 6.5% | 5.3% |
| 7 | 10 | Luxembourg | 71.1 | 66.3 | 75.1 | 61.3 | 85.2 | 10.0% | 8.3% |
| 8 | 11 | Austria | 71.0 | 69.7 | 79.7 | 61.6 | 78.3 | 5.6% | 2.2% |
| 9 | 12 | France | 70.6 | 59.6 | 79.8 | 68.3 | 75.1 | 5.6% | 19.5% |
| 10 | 13 | Slovenia | 70.4 | 65.5 | 83.1 | 60.8 | 77.8 | 4.8% | 8.7% |
| 11 | 14 | Belgium | 70.3 | 68.2 | 80.0 | 63.4 | 73.7 | 7.3% | 3.7% |
| 12 | 16 | Italy | 68.8 | 57.8 | 68.7 | 77.0 | 66.2 | 8.3% | 20.0% |
| | | **EU27** | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 | 6.5% | 13.5% |
| 13 | 17 | Czechia | 67.7 | 61.2 | 80.0 | 56.9 | 78.3 | 8.6% | 12.1% |
| 14 | 18 | Spain | 67.6 | 52.5 | 73.7 | 68.5 | 73.7 | 5.6% | 27.9% |
| 15 | 19 | Finland | 67.5 | 68.0 | 82.4 | 49.0 | 81.2 | 3.2% | -0.9% |
| 16 | 20 | Portugal | 65.8 | 52.4 | 75.7 | 62.2 | 73.6 | 2.9% | 25.5% |
| 17 | 21 | Slovakia | 65.0 | 51.1 | 74.6 | 62.7 | 71.5 | 9.5% | 26.7% |
| 18 | 23 | Latvia | 64.2 | 53.1 | 67.9 | 67.2 | 65.8 | 5.8% | 21.6% |
| 19 | 24 | Croatia | 64.0 | 49.9 | 68.3 | 65.6 | 69.7 | 20.5% | 27.5% |
| 20 | 25 | Lithuania | 63.8 | 53.4 | 66.4 | 64.8 | 68.6 | 6.8% | 20.4% |
| 21 | 26 | Poland | 63.6 | 55.3 | 70.8 | 57.6 | 72.8 | 7.6% | 16.3% |
| 22 | 27 | Estonia | 63.3 | 60.4 | 74.4 | 47.2 | 79.2 | 9.5% | 5.7% |
| 23 | 28 | Hungary | 62.8 | 57.1 | 70.5 | 62.7 | 61.4 | 0.5% | 11.5% |
| 24 | 31 | Cyprus | 61.6 | 48.4 | 78.5 | 54.2 | 68.8 | 1.7% | 26.7% |
| 25 | 34 | Greece | 60.5 | 45.9 | 67.1 | 65.2 | 60.2 | 5.6% | 30.1% |
| 26 | 35 | Romania | 58.9 | 41.3 | 61.6 | 61.6 | 67.1 | 7.5% | 37.4% |
| 27 | 37 | Bulgaria | 56.7 | 42.1 | 62.1 | 55.1 | 66.5 | 4.5% | 32.3% |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

Notes: (1) 'ESG gap (% of TPI)' refers to the difference between the sum of the social, environmental, and governance (ESG) pillar weighted scores and the economic pillar score, as a percentage of the TPI score, in 2019. (2) 'Progress 2010-19' refers to the percentage growth of TPI scores between 2010 and 2019.

Source: European Commission, Transitions Performance Index 2020.

Similar patterns across EU countries call for a coordinated policy at least in terms of objectives and targets. In this respect, the financial contribution from the COVID-19 recovery package – Next Generation EU -- goes in the right direction. However, it is now up to each country to decide how to ensure an effective use of these resources. Moreover, this does not preclude the need for policy decisions on norms and targets that may encourage the speed of adaptation.

Among the strong performers, Sweden achieves a leadership position in economic transition, and Malta and Italy in environmental transition. Among the good performers, Estonia achieves leadership in governance and Cyprus in social transition.

In contrast, all EU countries achieve leadership or strong performance in social and governance transitions, with the exceptions of Romania and Bulgaria in social transition and Hungary and Greece in governance transition.

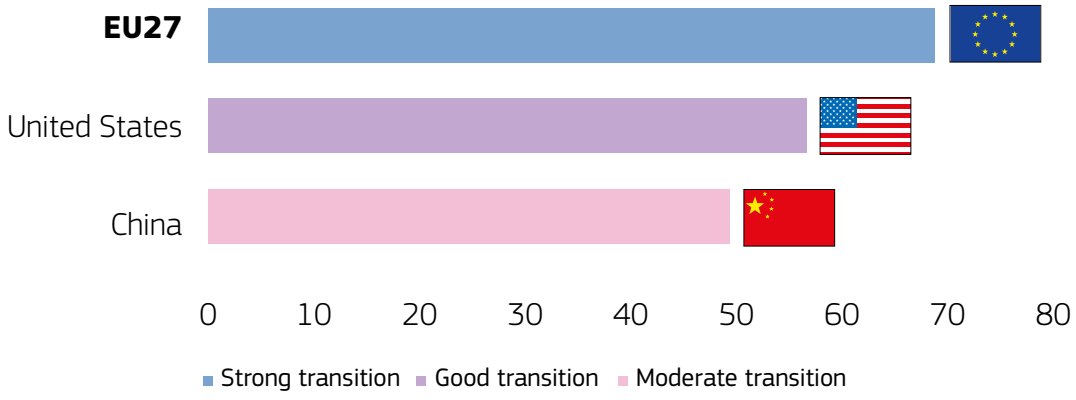
Progress in economic transition would increase the scores of Romania and Bulgaria, and to a lesser extent it would also increase the scores of Spain, Portugal, Slovakia, Latvia, Croatia, Lithuania, Cyprus, and Greece. Progress in environmental transition would increase the scores of Finland, Estonia, and Cyprus[6].

As indicated by the Environmental-Social-Governance transition (ESG gap), EU Member States succeed in leveraging their economic structures to progress in these three transitions, with room for progress in the environmental dimension (for an interpretation of the ESG gap, please refer to section III.2).

## II.1. THE EUROPEAN UNION, THE UNITED STATES AND CHINA

To respond to global challenges, a global metric is needed. This is what drives the TPI 2020 effort to have a geographical coverage as large as possible, knowing that its concept can be expanded in the future to include additional countries.

**FIGURE 2: European Union, United States and China scores and transition groups**




*Source: European Commission, Transitions Performance Index 2020.*

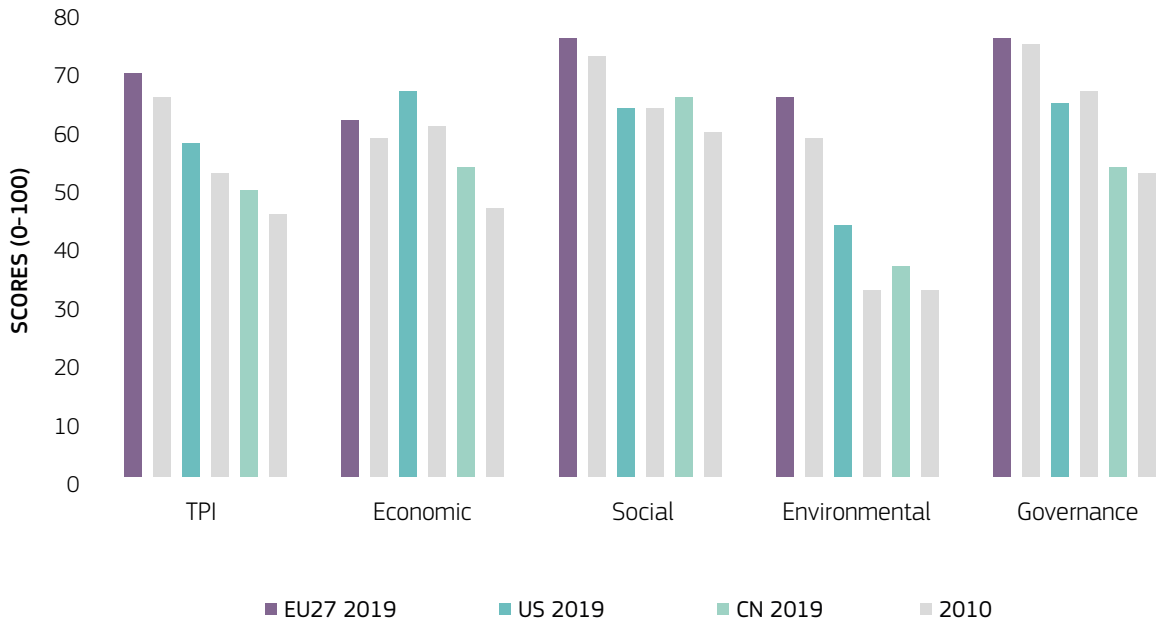
6 Eurostat data corroborates TPI findings in this respect. For example, Eurostat ranks for Finland, Estonia and Cyprus, are respectively: 19, 26 and 22 in GHG emissions reduction; 24, 27 and 18 in resources productivity; and 25, 26 and 15 in energy productivity, out of 27 EU Member States. Source: https://ec.europa.eu/eurostat/documents/3217494/11011074/KS-02-20-202-EN-N.pdf/334a8cfe-636a-bb8a-294a-73a052882f7f

Published with the support of the European Commission, this report aims to provide a specific snapshot of: (i) the absolute performance of EU countries, (ii) their progress over time, (iii) where there is room for their improvement, and (iv) their performance relative to the EU's main trading partners with which it is important to ensure a level playing field.

**Figure 2** shows the relative position of the three main trading blocs, namely the EU, the United States, and China. The EU appears to be on track towards a sustainable future, provided the pace of its efforts does not slow down despite the difficulties of the day.

For the United States, catching up will depend partly on governmental policy orientations, but also on civil society, which in certain States has been pushing for a reduction in greenhouse gas emissions. Since 2010, China has progressed by 9.9 %, the United States by 8.2 % and the EU by 6.5 %[7]. However, due to the distance to the frontier defined by the TPI goalposts[8], unless the United States and China further intensify their efforts, it is unlikely that they can catch up within the next decade; the European Union in the meantime has recently confirmed its Green Deal priorities and announced that its COVID-19 recovery package aims at a collective effort to accelerate transitions[9].

**FIGURE 3: European Union, United States and China TPI and pillar scores and progress since 2010**




*Source: European Commission, Transitions Performance Index 2020.*

7 Above the world TPI arithmetic average of 6.2 %.
8 Most goalposts are based on policy targets (see Appendix II). Both targets and goalposts may be revised in the future, in view of increased ambition or global progress.
9 https://www.consilium.europa.eu/en/infographics/recovery-plan-mff-2021-2027/ and https://www.consilium.europa.eu/en/infographics/ngeu-covid-19-recovery-package/

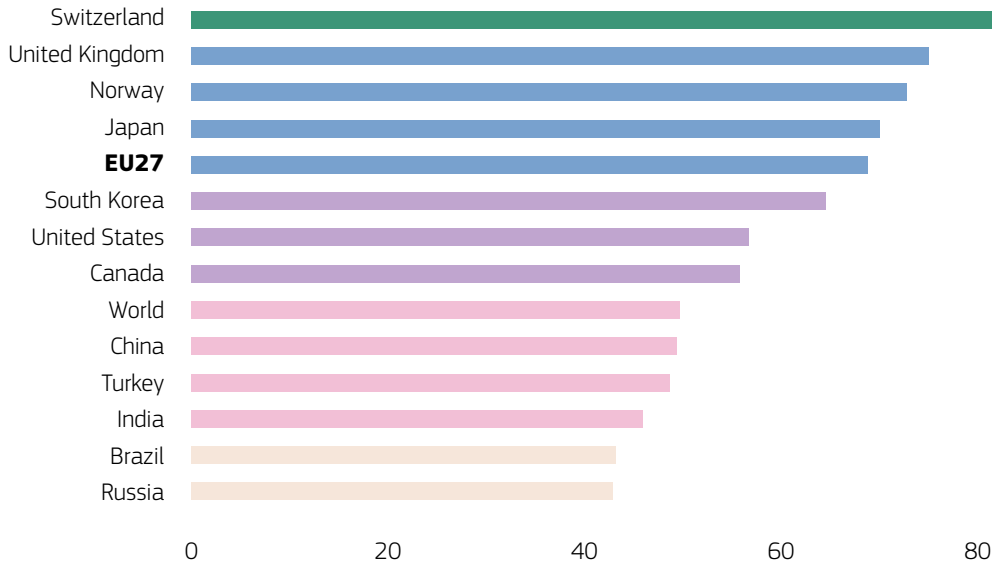
When comparing progress between the three blocs (**Figure 3**), country profiles are informative. The highest rate of progress in China is mostly in governance and economic transition (education, and labour productivity and R&D intensity). The United States' strong point is the economic pillar (with improvements in education, wealth, and labour productivity and R&D intensity and a decline in the industrial base). US progress in the environmental pillar has been facilitated by the low base level in 2010 (progress notably in resource productivity and energy productivity and despite reverse progress in greenhouse gas emissions reduction). The EU performance increased in all four pillars, particularly in the environmental pillar (notably in resource productivity and energy productivity, which together compensate for a decline in emissions reduction and limited progress in biodiversity protection).

## II.2. THE EUROPEAN UNION AND ITS MAIN TRADING PARTNERS

When extending the comparison to the EU's 10 main trading partners, the situation is less triumphant for the EU ranking, as a bigger geographical zone implies a higher risk of disparities (**Figure 4**). The EU shows strong transition. The two leaders, Switzerland and the UK, followed the EU market rules, with Switzerland belonging to the group of TPI leaders (together with EU countries Denmark and the Netherlands).

Japan is the only country outside Europe that belongs to the same league as the EU, while South Korea is not far behind. The gap with the United States and Canada is substantial; both countries are in good transition, performing better than China, Turkey, and India, which are in moderate transition, and Brazil and Russia, in weak transition. Among highly populated regions/countries, Japan and the EU have impressive performances, which highlight their efforts to contribute to the planet's sustainability.

**FIGURE 4: European Union and main partners TPI scores and transition groups**




Source: European Commission, Transitions Performance Index 2020.

# III. GLOBAL PERFORMANCE

# III. GLOBAL PERFORMANCE

**The TPI aims at becoming a compass used to monitor the capacity of countries to face global challenges with the goal to achieve a fair and sustainable prosperity for citizens and future generations.**

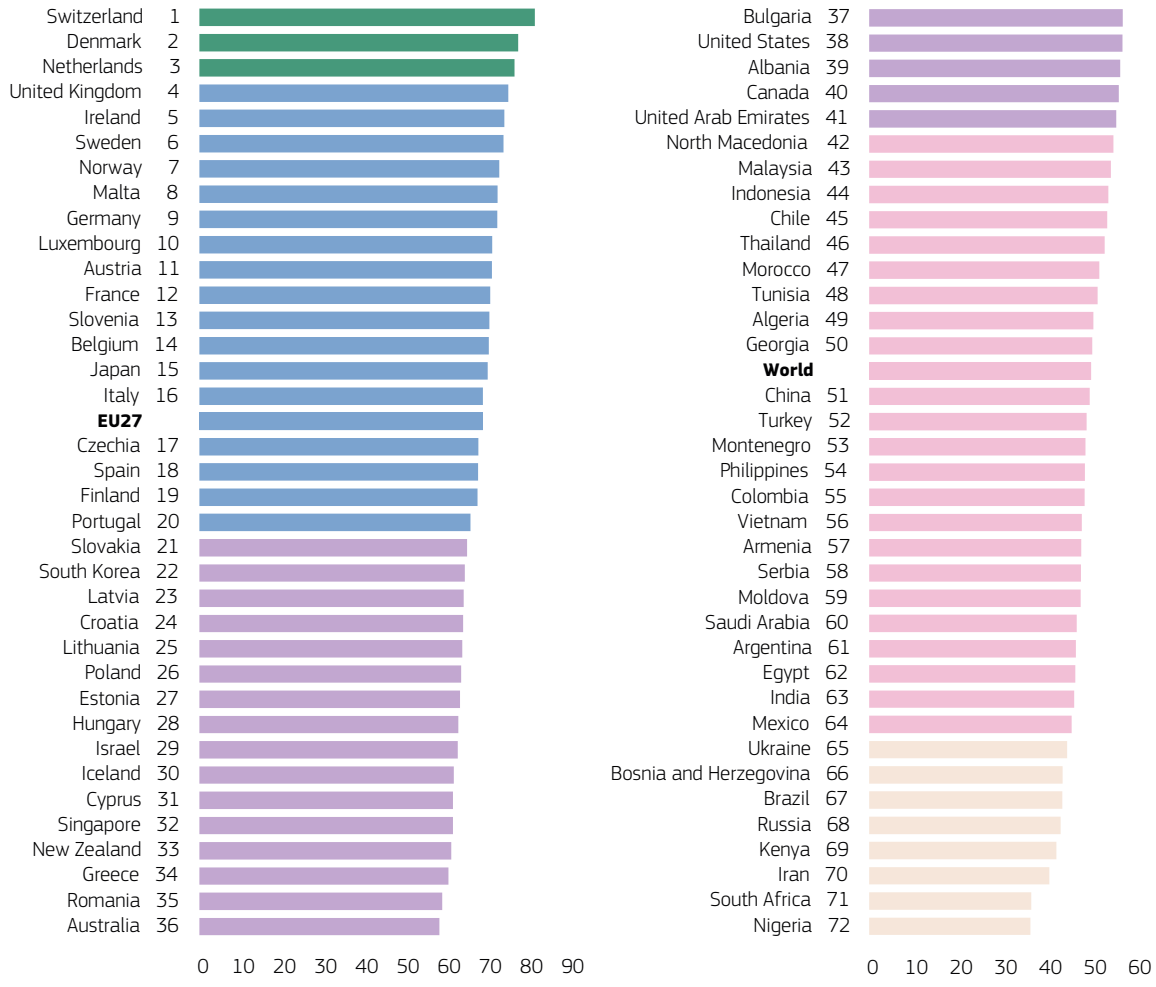
Global challenges imply a global response. Designed with a 'Beyond GDP' approach and using international comparable data, its global dimension constitutes one of the main added value of the TPI to help dialogue and citizens' involvement on a global scale.

## III.1. TPI PERFORMANCE

### *TPI ranking and scores*

Score ranges of identical width define the five performance groups (**Figure 5**). Therefore there is a typical normal distribution, with 3 countries as leaders, 17 as strong performers, 21 as good performers, 23 as moderate performers and 8 in weak transition. The overall strong position of EU countries is noteworthy (see Chapter II).[10]

**FIGURE 5: TPI ranking and transition groups (2019)**




Source: European Commission, Transitions Performance Index 2020.

10 Transition groups are: transition leader, scores equal to or above 75; strong transition, scores between 65 and 75; good transition, scores between 55 and 65; moderate transition, scores between 45 and 55; and weak transition, scores below 45.

Switzerland is the leader in economic transition, Iceland is at the top of the league in social transition, the United Kingdom leads in environmental transition and New Zealand is number one in governance transition (**Table 3**).

***Progress over the 2010-2019 decade***

Progress over the past decade is defined as the percentage change in scores between 2010 and 2019 (**Table 4**). Countries exhibit moderate progress over time, but with significant differences in relative performance in levels and trends, confirming the difficulty of the transition challenge. Switzerland's performance is outstanding, as it is at the top of the ranking for the entire 2010-2019 period, and it has a balanced performance in the four dimensions. The countries which registered the highest gains over the period are Croatia, the United Arab Emirates and Georgia.

The causes for Croatia's progress can be analysed based on its country profile. This high rate of progress results from improvements in all four dimensions, with a modernisation effect noticeable on labour productivity (including the indicator on R&D investment), resources productivity, energy productivity and investment in education. In other words, the economic system became more efficient. This also led to a reduction in working time, an improvement in the situation of the poorest and an improvement in public finances. However, the industrial base tends to diminish, with a negative impact on employment levels, and progress in reducing emissions remains insufficient.

Most progress took place between 2010 and 2016. Relative stagnation has set in since 2017, with the highest advances being on indicators with a low baseline. Part of the differential in the rate of Croatia's progress seems to be attributable to a catching-up effect, to its accession to the EU in 2013, and to the pre-accession process.

**TABLE 3: Top 5 TPI pillar scores**

| TOP 5 | TRANSITIONS | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | ECONOMIC | | SOCIAL | | ENVIRONMENTAL | | GOVERNANCE | |
| Ranks | Country | Score | Country | Score | Country | Score | Country | Score |
| 1 | Switzerland | 80.0 | Iceland | 90.1 | United Kingdom | 83.1 | New Zealand | 86.6 |
| 2 | Sweden | 75.2 | Norway | 86.4 | Switzerland | 81.4 | Norway | 85.9 |
| 3 | South Korea | 75.1 | Sweden | 85.7 | Italy | 77.0 | Luxembourg | 85.2 |
| 4 | Denmark | 71.6 | Netherlands | 84.5 | Malta | 75.6 | Denmark | 83.8 |
| 5 | Ireland | 70.0 | Denmark | 84.3 | Netherlands | 74.5 | Sweden | 83.7 |

■ Transition leader [75-100] ■ Strong transition [65-75[
Source: European Commission, Transitions Performance Index 2020.

## TABLE 4: Transitions Performance Index scores and progress (2010-2019)[10]

| COUNTRY | | | PROGRESS | 2010-2019 TPI SCORES | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RANK | CODE | NAME | 2010-2019 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 |
| 1 | CH | Switzerland | 7.9% | 81.4 | 80.9 | 80.2 | 79.4 | 79.0 | 78.4 | 77.1 | 77.5 | 76.7 | 75.5 |
| 2 | DK | Denmark | 5.8% | 77.4 | 76.6 | 76.4 | 76.6 | 76.5 | 75.6 | 74.7 | 74.5 | 73.7 | 73.2 |
| 3 | NL | Netherlands | 9.4% | 76.5 | 76.1 | 75.4 | 74.3 | 73.1 | 72.9 | 72.1 | 71.4 | 71.1 | 69.9 |
| 4 | UK | United Kingdom | 7.9% | 75.0 | 74.3 | 73.7 | 73.2 | 73.1 | 72.2 | 71.1 | 70.8 | 70.4 | 69.5 |
| 5 | IE | Ireland | 10.4% | 74.0 | 73.7 | 73.5 | 73.0 | 73.4 | 70.7 | 68.6 | 68.7 | 69.0 | 67.1 |
| 6 | SE | Sweden | 4.5% | 73.8 | 73.2 | 72.8 | 72.5 | 72.5 | 71.8 | 71.5 | 71.8 | 71.3 | 70.6 |
| 7 | NO | Norway | 6.1% | 72.8 | 71.4 | 71.5 | 71.1 | 70.0 | 70.0 | 68.7 | 69.5 | 68.1 | 68.7 |
| 8 | MT | Malta | 7.2% | 72.4 | 71.8 | 71.4 | 70.8 | 70.9 | 69.3 | 69.4 | 65.4 | 66.9 | 67.5 |
| 9 | DE | Germany | 6.5% | 72.3 | 72.2 | 71.5 | 70.4 | 70.5 | 70.0 | 69.2 | 69.1 | 68.7 | 67.9 |
| 10 | LU | Luxembourg | 10.0% | 71.1 | 70.6 | 69.7 | 69.2 | 68.6 | 68.1 | 67.8 | 67.4 | 65.9 | 64.6 |
| 11 | AT | Austria | 5.6% | 71.0 | 70.8 | 70.4 | 70.1 | 69.9 | 69.8 | 68.7 | 68.2 | 67.5 | 67.3 |
| 12 | FR | France | 5.6% | 70.6 | 70.1 | 69.8 | 69.4 | 68.9 | 68.8 | 68.2 | 67.8 | 67.2 | 66.8 |
| 13 | SI | Slovenia | 4.8% | 70.4 | 69.9 | 69.4 | 69.2 | 68.2 | 68.4 | 68.4 | 68.3 | 67.7 | 67.2 |
| 14 | BE | Belgium | 7.3% | 70.3 | 70.0 | 69.6 | 68.9 | 68.6 | 68.4 | 67.5 | 67.2 | 65.9 | 65.5 |
| 15 | JP | Japan | 8.2% | 70.0 | 69.4 | 68.9 | 67.8 | 67.8 | 67.0 | 66.2 | 65.6 | 64.9 | 64.6 |
| 16 | IT | Italy | 8.3% | 68.8 | 68.4 | 68.1 | 67.6 | 66.7 | 66.7 | 66.1 | 64.7 | 63.7 | 63.5 |
| | **EU27** | **European Union** | 6.5% | 68.8 | 68.4 | 68.0 | 67.5 | 67.2 | 66.9 | 66.0 | 65.6 | 65.0 | 64.6 |
| 17 | CZ | Czechia | 8.6% | 67.7 | 67.3 | 66.8 | 66.4 | 66.1 | 65.6 | 64.3 | 63.7 | 63.2 | 62.4 |
| 18 | ES | Spain | 5.6% | 67.6 | 67.0 | 66.7 | 66.4 | 65.5 | 65.3 | 65.1 | 64.8 | 64.3 | 64.0 |
| 19 | FI | Finland | 3.2% | 67.5 | 67.6 | 68.2 | 67.8 | 68.1 | 67.7 | 66.8 | 67.1 | 66.4 | 65.4 |
| 20 | PT | Portugal | 2.9% | 65.8 | 65.1 | 64.8 | 64.9 | 64.3 | 64.2 | 63.6 | 63.2 | 63.7 | 63.9 |
| 21 | SK | Slovakia | 9.5% | 65.0 | 64.3 | 63.5 | 63.9 | 63.8 | 62.5 | 61.2 | 61.1 | 60.1 | 59.3 |
| 22 | KR | South Korea | 12.0% | 64.5 | 63.9 | 63.4 | 62.2 | 61.3 | 61.0 | 60.5 | 59.9 | 58.3 | 57.5 |
| 23 | LV | Latvia | 5.8% | 64.2 | 64.0 | 64.0 | 63.8 | 63.6 | 62.9 | 62.4 | 61.4 | 61.0 | 60.6 |
| 24 | HR | Croatia | 20.5% | 64.0 | 63.8 | 62.6 | 63.2 | 62.7 | 60.2 | 58.4 | 55.0 | 54.4 | 53.1 |
| 25 | LT | Lithuania | 6.8% | 63.8 | 63.5 | 62.6 | 62.2 | 62.2 | 61.9 | 61.1 | 60.6 | 60.3 | 59.7 |
| 26 | PL | Poland | 7.6% | 63.6 | 62.9 | 62.7 | 62.8 | 63.3 | 62.6 | 61.0 | 60.3 | 59.3 | 59.1 |
| 27 | EE | Estonia | 9.5% | 63.3 | 62.3 | 61.7 | 61.1 | 61.4 | 59.3 | 58.1 | 59.0 | 58.4 | 57.8 |
| 28 | HU | Hungary | 0.5% | 62.8 | 62.2 | 62.1 | 62.7 | 62.6 | 62.9 | 62.7 | 62.9 | 62.6 | 62.5 |
| 29 | IL | Israel | 12.2% | 62.7 | 62.4 | 62.2 | 61.3 | 60.5 | 60.4 | 58.8 | 57.2 | 56.8 | 55.9 |
| 30 | IS | Iceland | 1.6% | 61.8 | 61.5 | 61.6 | 62.1 | 61.7 | 61.5 | 61.0 | 61.4 | 60.7 | 60.8 |
| 31 | CY | Cyprus | 1.7% | 61.6 | 61.2 | 61.9 | 61.3 | 60.9 | 60.3 | 60.9 | 59.4 | 60.6 | 60.5 |
| 32 | SG | Singapore | 3.1% | 61.6 | 61.4 | 60.6 | 60.4 | 60.2 | 60.3 | 60.6 | 61.0 | 61.5 | 59.7 |
| 33 | NZ | New Zealand | 4.7% | 61.2 | 60.8 | 60.4 | 59.8 | 59.2 | 58.7 | 58.6 | 58.9 | 58.8 | 58.4 |
| 34 | EL | Greece | 5.6% | 60.5 | 60.0 | 59.5 | 58.8 | 58.3 | 57.8 | 57.3 | 56.0 | 56.4 | 57.2 |
| 35 | RO | Romania | 7.5% | 58.9 | 58.8 | 58.6 | 58.4 | 56.6 | 56.3 | 55.8 | 54.9 | 55.9 | 54.8 |
| 36 | AU | Australia | 5.2% | 58.3 | 58.1 | 57.8 | 57.4 | 57.2 | 56.9 | 56.4 | 55.8 | 55.4 | 55.4 |
| 37 | BG | Bulgaria | 4.5% | 56.7 | 56.3 | 55.9 | 55.7 | 55.4 | 56.0 | 55.6 | 54.4 | 54.2 | 54.3 |
| 38 | US | United States | 8.2% | 56.7 | 56.2 | 56.0 | 54.9 | 54.6 | 54.0 | 53.8 | 53.9 | 52.9 | 52.4 |
| 39 | AL | Albania | 6.2% | 56.2 | 56.1 | 55.7 | 55.1 | 54.8 | 53.0 | 53.3 | 53.1 | 52.7 | 52.9 |
| 40 | CA | Canada | 2.9% | 55.8 | 55.5 | 55.4 | 55.2 | 54.8 | 54.7 | 54.4 | 54.7 | 54.3 | 54.3 |
| 41 | AE | United Arab Emirates | 16.6% | 55.3 | 55.0 | 54.6 | 53.7 | 52.9 | 52.4 | 51.2 | 49.6 | 48.9 | 47.4 |
| 42 | MK | North Macedonia | 12.6% | 54.7 | 54.4 | 52.9 | 53.0 | 52.8 | 51.7 | 50.7 | 49.2 | 48.8 | 48.6 |
| 43 | MY | Malaysia | 9.9% | 54.1 | 53.9 | 53.1 | 52.8 | 52.7 | 52.3 | 51.5 | 51.3 | 50.6 | 49.2 |
| 44 | ID | Indonesia | 12.4% | 53.5 | 53.0 | 52.1 | 52.0 | 51.0 | 50.6 | 49.3 | 48.7 | 47.8 | 47.6 |
| 45 | CL | Chile | 3.8% | 53.3 | 53.3 | 52.8 | 53.1 | 53.6 | 53.8 | 52.3 | 51.8 | 51.3 | 51.4 |
| 46 | TH | Thailand | 8.1% | 52.7 | 52.5 | 51.9 | 51.0 | 50.8 | 50.1 | 50.4 | 50.1 | 50.3 | 48.7 |
| 47 | MA | Morocco | 9.7% | 51.5 | 51.3 | 50.4 | 50.9 | 51.4 | 51.4 | 50.3 | 50.2 | 46.7 | 47.0 |
| 48 | TN | Tunisia | 7.6% | 51.1 | 51.0 | 50.9 | 51.9 | 51.8 | 50.7 | 50.2 | 49.6 | 48.5 | 47.6 |
| 49 | DZ | Algeria | -2.8% | 50.2 | 50.1 | 50.0 | 49.8 | 49.8 | 50.5 | 51.0 | 51.1 | 51.6 | 51.6 |
| 50 | GE | Georgia | 14.7% | 49.9 | 49.7 | 50.1 | 50.7 | 47.9 | 47.5 | 45.8 | 45.6 | 45.2 | 43.5 |
| | **WD** | **World** | 5.4% | 49.7 | 49.6 | 49.3 | 49.0 | 48.7 | 48.4 | 48.0 | 47.6 | 47.3 | 47.1 |
| 51 | CN | China | 9.9% | 49.4 | 49.5 | 49.1 | 48.5 | 48.1 | 47.4 | 46.9 | 45.9 | 45.6 | 44.9 |
| 52 | TR | Turkey | 6.1% | 48.7 | 48.6 | 47.8 | 47.5 | 48.3 | 48.1 | 48.2 | 47.0 | 46.9 | 45.9 |
| 53 | ME | Montenegro | 9.5% | 48.4 | 48.2 | 47.2 | 45.7 | 46.2 | 45.6 | 46.3 | 45.6 | 44.0 | 44.2 |
| 54 | PH | Philippines | 8.8% | 48.3 | 47.8 | 47.1 | 46.5 | 46.6 | 46.4 | 46.0 | 45.2 | 44.9 | 44.4 |
| 55 | CO | Colombia | 9.3% | 48.2 | 48.7 | 48.2 | 47.4 | 47.3 | 46.0 | 45.2 | 46.3 | 45.4 | 44.1 |
| 56 | VN | Vietnam | 8.0% | 47.6 | 47.8 | 47.8 | 47.6 | 47.5 | 47.3 | 46.7 | 46.0 | 44.6 | 44.1 |
| 57 | AM | Armenia | 2.9% | 47.5 | 47.2 | 45.8 | 45.2 | 45.2 | 45.4 | 46.0 | 46.0 | 46.0 | 46.1 |
| 58 | RS | Serbia | 5.5% | 47.4 | 47.5 | 47.5 | 46.2 | 46.3 | 46.8 | 46.5 | 46.1 | 45.7 | 44.9 |
| 59 | MD | Moldova | 7.6% | 47.3 | 47.1 | 47.3 | 46.4 | 47.1 | 46.9 | 46.9 | 45.6 | 45.1 | 44.0 |
| 60 | SA | Saudi Arabia | 7.8% | 46.5 | 46.5 | 45.4 | 45.7 | 45.2 | 44.5 | 44.6 | 44.1 | 43.1 | 43.1 |
| 61 | AR | Argentina | 3.6% | 46.3 | 46.4 | 46.8 | 45.8 | 45.4 | 44.8 | 45.0 | 45.4 | 45.6 | 44.6 |
| 62 | EG | Egypt | 1.0% | 46.2 | 45.5 | 44.7 | 45.3 | 45.5 | 45.6 | 45.4 | 45.7 | 44.8 | 45.7 |
| 63 | IN | India | 5.3% | 45.9 | 45.9 | 45.7 | 45.4 | 44.8 | 44.4 | 44.2 | 43.8 | 43.5 | 43.6 |
| 64 | MX | Mexico | 5.0% | 45.3 | 45.2 | 45.0 | 45.4 | 45.5 | 45.0 | 43.8 | 43.6 | 43.1 | 43.1 |
| 65 | UA | Ukraine | -1.4% | 44.3 | 44.1 | 43.6 | 42.8 | 43.3 | 43.8 | 44.9 | 45.1 | 44.7 | 44.9 |
| 66 | BA | Bosnia and Herzegovi | 1.5% | 43.3 | 43.2 | 43.2 | 43.1 | 43.2 | 43.3 | 43.4 | 42.3 | 42.6 | 42.7 |
| 67 | BR | Brazil | -2.3% | 43.2 | 43.1 | 42.6 | 42.9 | 43.4 | 43.8 | 43.7 | 43.5 | 44.1 | 44.2 |
| 68 | RU | Russia | 7.4% | 42.9 | 42.6 | 42.3 | 41.1 | 41.0 | 40.5 | 40.2 | 40.0 | 39.8 | 39.9 |
| 69 | KE | Kenya | 2.1% | 41.9 | 41.9 | 42.1 | 42.4 | 42.4 | 41.9 | 41.6 | 41.1 | 41.1 | 41.1 |
| 70 | IR | Iran | 4.1% | 40.4 | 40.6 | 40.7 | 40.0 | 38.6 | 38.5 | 38.5 | 38.2 | 38.7 | 38.8 |
| 71 | ZA | South Africa | 2.2% | 36.3 | 35.9 | 36.2 | 36.5 | 36.7 | 36.1 | 36.0 | 35.7 | 35.5 | 35.5 |
| 72 | NG | Nigeria | 3.3% | 36.1 | 37.1 | 37.2 | 37.2 | 37.5 | 37.0 | 36.6 | 35.7 | 35.8 | 34.9 |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

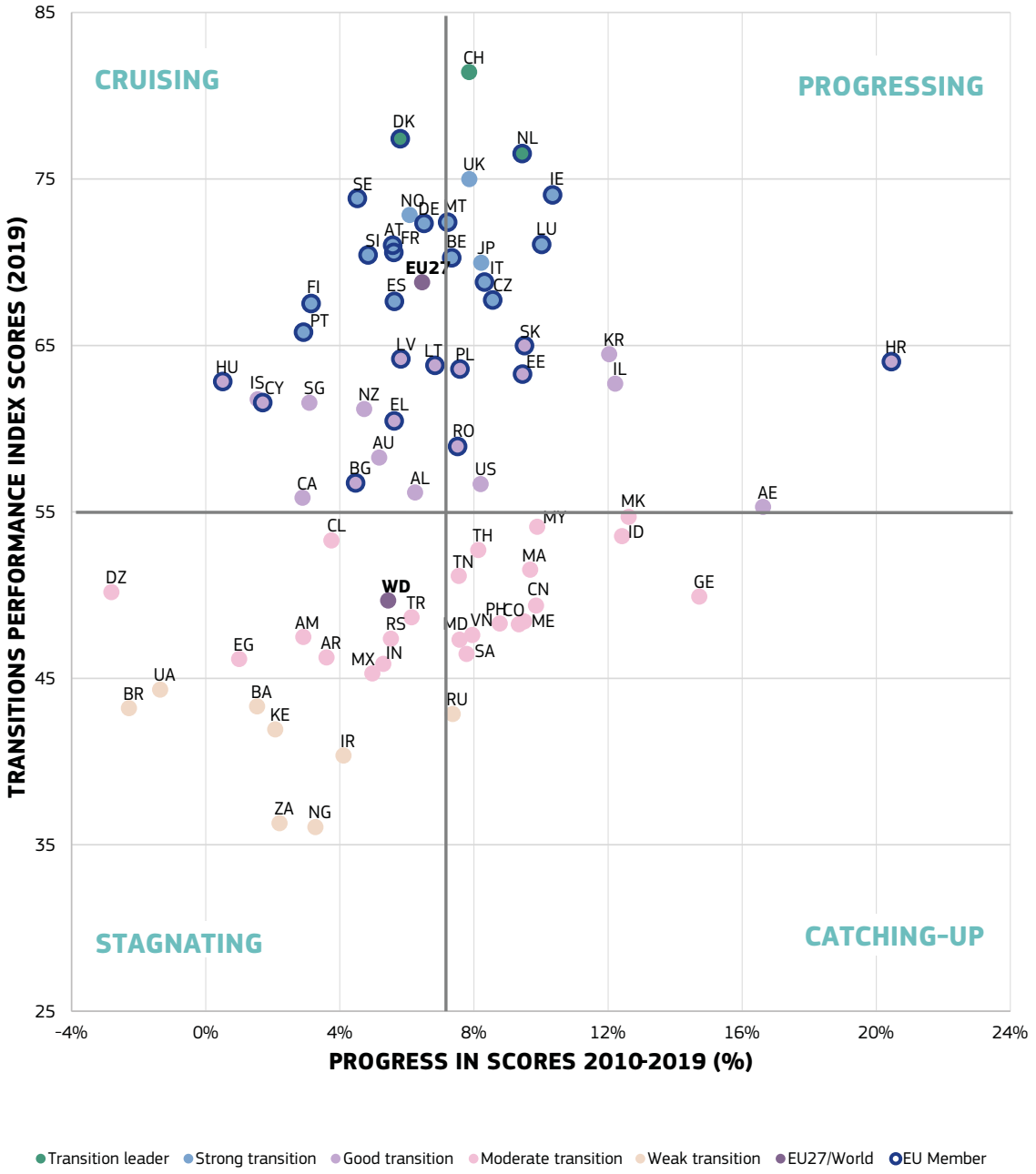
Notes: (1) 'ESG gap (% of TPI)' refers to the difference between the sum of the social, environmental, and governance (ESG) pillar weighted scores and the economic pillar score, as a percentage of the TPI score, in 2019. (2) 'Progress 2010-19' refers to the percentage growth of TPI scores between 2010 and 2019.

Source: European Commission, Transitions Performance Index 2020.

Progress is far from being solely a catching-up effect for the countries with a low TPI score in 2010. Most of the 72 countries covered by the TPI have improved their performance, on average by 5.4%,[11] except for Algeria, Brazil, and Ukraine whose performance has receded.

**Figure 6** shows that progress is not predetermined by the starting points (weak $R^2$ of 0.0548). Some leaders or strong performers have made outstanding progress, such as Ireland, Luxembourg, the Netherlands, Czechia, Italy, Japan, the United Kingdom, Switzerland, Belgium, Malta, Germany and the EU as a whole (with growth over 6.5%).

**FIGURE 6: TPI scores and 2010-2019 progress grid**




*Source: European Commission, Transitions Performance Index 2020.*

11 Refer to Appendix IV - Technical notes for details on the computation of the country aggregates EU27 (27 current Member States, considered over the entire 2010-2019 period) and World (which includes only the 72 countries considered in the TPI). The arithmetic average progress is 6.5%, and the average progress weighted by population is 6.9%, notably due to the weight of China.

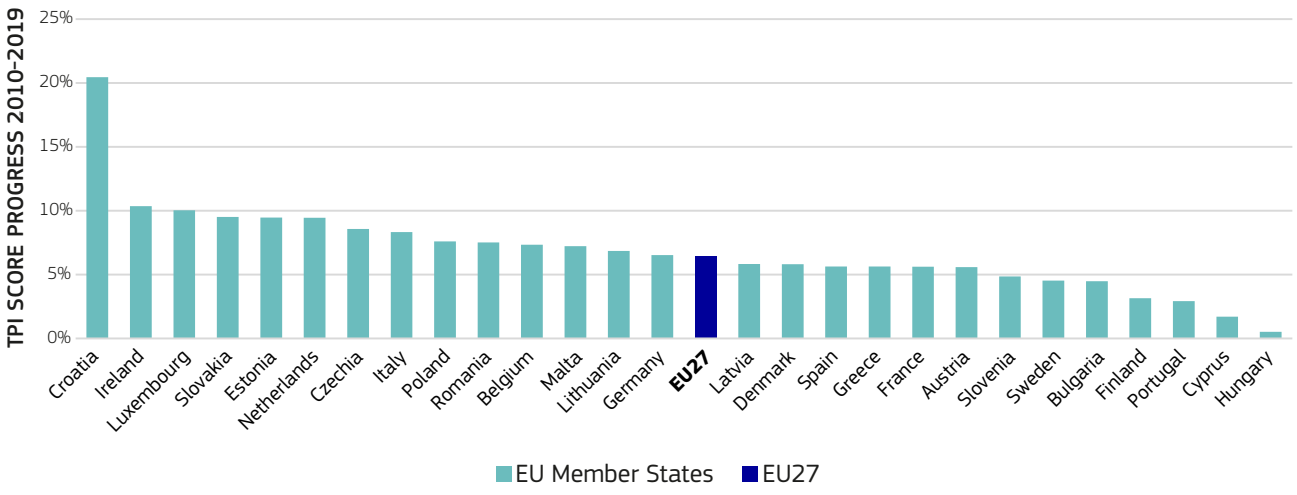
But significant progress is also noticeable in countries that belong to the other groups of performers, such as Croatia, the United Arab Emirates, Georgia, North Macedonia, Indonesia, Israel, South Korea, China, Malaysia, Morocco, Slovakia, Montenegro, Estonia, Colombia, the Philippines, the United States, Thailand, Vietnam, Saudi Arabia, Poland, Moldova, Tunisia, Romania, and Russia as shown by the following figure presenting progress above the EU level of change (**Figure 7**).

***Performance in the four transitions***

Pillar performance shows that with the exception of Switzerland, no country is among the leaders in all four dimensions, which shows that there is room for progress for all (**Table 5**).

Some countries achieve leadership in some pillars, even if they do not rank at the top of the TPI; conversely, some countries lag in some pillars despite their overall good performance in TPI scores. This illustrates the specific nature of each pillar. While the public benefits from progress in each dimension, some countries may take advantage of their strengths to make progress on their relative weaknesses[12]. The TPI country profiles show weak points where catching up is recommended to avoid imbalances, which would destroy the economic and social consensus needed to support the global transition process.

**FIGURE 7: TPI progress rates 2010-2019 (half best performers)**




*Source: European Commission, Transitions Performance Index 2020.*

12 The TPI being based on a reduced number of indicators, the strengths and weaknesses it points to need to be further analysed by a wider set of indicators in each dimension, based on existing large dashboards and expert views.

## TABLE 5: Transition Performance Index scores in the four transitions

| | COUNTRY | | 2019 TRANSITIONS SCORES | | | | | ESG GAP | PROGRESS |
|---|---|---|---|---|---|---|---|---|---|
| RANK | CODE | NAME | TPI | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE | (% OF TPI) | 2010-2019 |
| 1 | CH | Switzerland | 81.4 | 80.0 | 80.5 | 81.4 | 83.4 | 2.2% | 7.9% |
| 2 | DK | Denmark | 77.4 | 71.6 | 84.3 | 72.2 | 83.8 | 9.4% | 5.8% |
| 3 | NL | Netherlands | 76.5 | 65.0 | 84.5 | 74.5 | 82.1 | 18.8% | 9.4% |
| 4 | UK | United Kingdom | 75.0 | 54.9 | 77.5 | 83.1 | 77.7 | 33.4% | 7.9% |
| 5 | IE | Ireland | 74.0 | 70.0 | 76.3 | 71.9 | 78.4 | 6.8% | 10.4% |
| 6 | SE | Sweden | 73.8 | 75.2 | 85.7 | 59.2 | 83.7 | -2.3% | 4.5% |
| 7 | NO | Norway | 72.8 | 66.7 | 86.4 | 59.3 | 85.9 | 10.5% | 6.1% |
| 8 | MT | Malta | 72.4 | 58.7 | 78.6 | 75.6 | 74.0 | 23.6% | 7.2% |
| 9 | DE | Germany | 72.3 | 69.3 | 80.3 | 64.3 | 79.7 | 5.3% | 6.5% |
| 10 | LU | Luxembourg | 71.1 | 66.3 | 75.1 | 61.3 | 85.2 | 8.3% | 10.0% |
| 11 | AT | Austria | 71.0 | 69.7 | 79.7 | 61.6 | 78.3 | 2.2% | 5.6% |
| 12 | FR | France | 70.6 | 59.6 | 79.8 | 68.3 | 75.1 | 19.5% | 5.6% |
| 13 | SI | Slovenia | 70.4 | 65.5 | 83.1 | 60.8 | 77.8 | 8.7% | 4.8% |
| 14 | BE | Belgium | 70.3 | 68.2 | 80.0 | 63.4 | 73.7 | 3.7% | 7.3% |
| 15 | JP | Japan | 70.0 | 65.3 | 79.3 | 65.4 | 72.6 | 8.4% | 8.2% |
| 16 | IT | Italy | 68.8 | 57.8 | 68.7 | 77.0 | 66.2 | 20.0% | 8.3% |
| | **EU27** | **European Union** | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 | 13.5% | 6.5% |
| 17 | CZ | Czechia | 67.7 | 61.2 | 80.0 | 56.9 | 78.3 | 12.1% | 8.6% |
| 18 | ES | Spain | 67.6 | 52.5 | 73.7 | 68.5 | 73.7 | 27.9% | 5.6% |
| 19 | FI | Finland | 67.5 | 68.0 | 82.4 | 49.0 | 81.2 | -0.9% | 3.2% |
| 20 | PT | Portugal | 65.8 | 52.4 | 75.7 | 62.2 | 73.6 | 25.5% | 2.9% |
| 21 | SK | Slovakia | 65.0 | 51.1 | 74.6 | 62.7 | 71.5 | 26.7% | 9.5% |
| 22 | KR | South Korea | 64.5 | 75.1 | 72.9 | 44.7 | 76.8 | -20.7% | 12.0% |
| 23 | LV | Latvia | 64.2 | 53.1 | 67.9 | 67.2 | 65.8 | 21.6% | 5.8% |
| 24 | HR | Croatia | 64.0 | 49.9 | 68.3 | 65.6 | 69.7 | 27.5% | 20.5% |
| 25 | LT | Lithuania | 63.8 | 53.4 | 66.4 | 64.8 | 68.6 | 20.4% | 6.8% |
| 26 | PL | Poland | 63.6 | 55.3 | 70.8 | 57.6 | 72.8 | 16.3% | 7.6% |
| 27 | EE | Estonia | 63.3 | 60.4 | 74.4 | 47.2 | 79.2 | 5.7% | 9.5% |
| 28 | HU | Hungary | 62.8 | 57.1 | 70.5 | 62.7 | 61.4 | 11.5% | 0.5% |
| 29 | IL | Israel | 62.7 | 59.4 | 71.9 | 52.4 | 72.3 | 6.6% | 12.2% |
| 30 | IS | Iceland | 61.8 | 66.4 | 90.1 | 29.1 | 81.1 | -9.4% | 1.6% |
| 31 | CY | Cyprus | 61.6 | 48.4 | 78.5 | 54.2 | 68.8 | 26.7% | 1.7% |
| 32 | SG | Singapore | 61.6 | 69.3 | 55.3 | 51.3 | 74.7 | -15.7% | 3.1% |
| 33 | NZ | New Zealand | 61.2 | 55.8 | 78.9 | 36.0 | 86.6 | 11.0% | 4.7% |
| 34 | EL | Greece | 60.5 | 45.9 | 67.1 | 65.2 | 60.2 | 30.1% | 5.6% |
| 35 | RO | Romania | 58.9 | 41.3 | 61.6 | 61.6 | 67.1 | 37.4% | 7.5% |
| 36 | AU | Australia | 58.3 | 54.6 | 77.5 | 32.5 | 81.9 | 7.9% | 5.2% |
| 37 | BG | Bulgaria | 56.7 | 42.1 | 62.1 | 55.1 | 66.5 | 32.3% | 4.5% |
| 38 | US | United States | 56.7 | 65.7 | 62.7 | 42.8 | 64.1 | -19.8% | 8.2% |
| 39 | AL | Albania | 56.2 | 24.8 | 64.4 | 71.7 | 52.9 | 69.8% | 6.2% |
| 40 | CA | Canada | 55.8 | 60.0 | 76.2 | 28.2 | 74.9 | -9.3% | 2.9% |
| 41 | AE | United Arab Emirates | 55.3 | 42.6 | 71.3 | 45.0 | 67.0 | 28.7% | 16.6% |
| 42 | MK | North Macedonia | 54.7 | 34.1 | 60.0 | 57.9 | 62.3 | 47.1% | 12.6% |
| 43 | MY | Malaysia | 54.1 | 46.8 | 60.2 | 50.1 | 60.6 | 16.9% | 9.9% |
| 44 | ID | Indonesia | 53.5 | 28.0 | 57.5 | 58.3 | 64.2 | 59.7% | 12.4% |
| 45 | CL | Chile | 53.3 | 42.0 | 58.2 | 44.9 | 70.2 | 26.5% | 3.8% |
| 46 | TH | Thailand | 52.7 | 45.1 | 65.0 | 52.4 | 49.4 | 18.0% | 8.1% |
| 47 | MA | Morocco | 51.5 | 32.8 | 47.5 | 63.6 | 52.7 | 45.4% | 9.7% |
| 48 | TN | Tunisia | 51.1 | 37.9 | 54.0 | 55.5 | 53.4 | 32.3% | 7.6% |
| 49 | DZ | Algeria | 50.2 | 37.1 | 57.2 | 55.1 | 48.1 | 32.5% | -2.8% |
| 50 | GE | Georgia | 49.9 | 27.7 | 58.6 | 48.5 | 62.7 | 55.6% | 14.7% |
| | **WD** | **World** | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 | 9.1% | 5.4% |
| 51 | CN | China | 49.4 | 52.9 | 64.7 | 36.2 | 52.7 | -8.9% | 9.9% |
| 52 | TR | Turkey | 48.7 | 41.1 | 49.9 | 51.7 | 49.5 | 19.4% | 6.1% |
| 53 | ME | Montenegro | 48.4 | 21.2 | 59.6 | 50.0 | 59.0 | 70.3% | 9.5% |
| 54 | PH | Philippines | 48.3 | 24.4 | 49.8 | 62.2 | 46.7 | 61.7% | 8.8% |
| 55 | CO | Colombia | 48.2 | 29.9 | 50.3 | 65.8 | 36.7 | 47.6% | 9.3% |
| 56 | VN | Vietnam | 47.6 | 28.6 | 67.2 | 47.1 | 47.8 | 49.8% | 8.0% |
| 57 | AM | Armenia | 47.5 | 25.8 | 59.9 | 46.2 | 56.6 | 57.2% | 2.9% |
| 58 | RS | Serbia | 47.4 | 37.6 | 61.1 | 38.2 | 57.0 | 25.8% | 5.5% |
| 59 | MD | Moldova | 47.3 | 40.7 | 60.9 | 41.0 | 50.6 | 17.6% | 7.6% |
| 60 | SA | Saudi Arabia | 46.5 | 53.9 | 41.3 | 37.8 | 56.7 | -19.9% | 7.8% |
| 61 | AR | Argentina | 46.3 | 36.3 | 49.3 | 48.8 | 48.2 | 26.8% | 3.6% |
| 62 | EG | Egypt | 46.2 | 28.1 | 47.4 | 55.8 | 46.2 | 49.0% | 1.0% |
| 63 | IN | India | 45.9 | 28.9 | 39.7 | 52.1 | 55.7 | 46.3% | 5.3% |
| 64 | MX | Mexico | 45.3 | 36.5 | 52.4 | 54.9 | 33.2 | 24.3% | 5.0% |
| 65 | UA | Ukraine | 44.3 | 41.8 | 66.3 | 33.8 | 43.5 | 7.1% | -1.4% |
| 66 | BA | Bosnia and Herzegovina | 43.3 | 22.5 | 51.9 | 40.3 | 57.3 | 59.9% | 1.5% |
| 67 | BR | Brazil | 43.2 | 39.4 | 47.9 | 47.3 | 36.8 | 11.1% | -2.3% |
| 68 | RU | Russia | 42.9 | 45.9 | 62.0 | 33.8 | 37.9 | -8.9% | 7.4% |
| 69 | KE | Kenya | 41.9 | 19.5 | 53.8 | 48.4 | 41.4 | 67.0% | 2.1% |
| 70 | IR | Iran | 40.4 | 32.3 | 44.8 | 42.5 | 40.2 | 24.8% | 4.1% |
| 71 | ZA | South Africa | 36.3 | 37.7 | 26.0 | 38.5 | 40.3 | -4.8% | 2.2% |
| 72 | NG | Nigeria | 36.1 | 13.4 | 33.3 | 57.2 | 26.8 | 78.7% | 3.3% |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Notes: (1) 'ESG gap (% of TPI)' refers to the difference between the sum of the social, environmental, and governance (ESG) weighted scores and the economic pillar score, as a percentage of the TPI score, in 2019. (2) 'Progress 2010-19' refers to the growth of TPI scores between 2010 and 2019.

Source: European Commission, Transitions Performance Index 2020.

***Transition leaders and strong performers***

Countries among the TPI transition leaders and in strong transition groups are also among the strong performers in social and governance transitions. This seems to validate the assessment of the report from the Parliamentary Assembly of the Council of Europe:

> *"Democracy is important for sustainable economic development - from respect for human rights, the rule of law, social justice and solidarity to transparency and accountability in public affairs, through the independence of the judiciary, freedom of the press and the firm rejection of 'cronyism', corruption and business crime."*[13]

A more detailed analysis is required to verify such a possible link over time.

The relationship between the TPI and economic and environmental transitions is more diverse. This stems from the fact that progress in these dimensions has started more recently, especially for the environmental transition, and therefore their positive effects have not yet fully materialised.

At the global level, it appears that the United Kingdom, Spain, and Portugal have room for improving their performance in economic transition as also indicated by the gap analysis (see below). It is also the case to a lesser extent for four other EU countries, Malta, France, Italy, and Czechia, as well as the EU as a whole.

For the environmental transition, Finland and to a lesser extent nine other countries lag behind. This demonstrates that the TPI overall performance should not hide the need for progress in every transition pillar.

***Good performers***

Among good performers, the social and governance transitions show an overall good performance, confirming the link mentioned above for strong performers and leaders. Seven countries belong to the group of leaders for one or both transitions: Iceland, New Zealand, and Australia in both; Cyprus and Canada in social transition; and South Korea and Estonia in governance transition.

Regarding the economic transition, South Korea is ranking among the leaders second to Switzerland, while Iceland, Singapore and the United States are among the strong performers. In this dimension, the scores of Romania, Bulgaria, the United Arab Emirates and especially Albania are worrying. Seven other countries are in moderate economic transition, showing room for improvement.

Regarding the environmental transition, no country in this group ranks among the leaders. However, the strong performances of Latvia, Croatia, Greece, and Albania are noticeable, especially for Albania, showing that a strong performance in environmental transition is achievable despite a moderate performance in economic transition.

Unfortunately, scores are less satisfactory for South Korea, Iceland, New Zealand, Australia, the United States and Canada, which all perform weakly. The room for improvement is particularly high for Iceland, Australia, and Canada, where environmental scores below 35 denote a persisting gap between policy choices and global trends in this respect. It seems that the growth model is slow to shift on a large scale to adapt to a sustainable economy. This may have long-term adverse effects not only in terms of resilience and adaptation to society's demands, but also in terms of competitiveness. This may also raise concerns about a global level playing field.

***Moderate and weak performers***

As expected, within the moderate and weak performers, moderate or weak performances tend to be the norm across all four dimensions.

Nevertheless, five countries achieve a strong performance in one of the four transitions: none in economic transition, China, Vietnam and Ukraine in social transition, Colombia in environmental transition, and Chile in governance transition. This demonstrates that there is no unique pattern or predetermined development path. There is room for a large variety of policy mixes, despite the globalisation of challenges.

Among weak performers, beyond the case of Ukraine in social transition, three countries achieve good performances in one dimension: Russia in social transition, Nigeria in environmental transition, and Bosnia and Herzegovina in governance transition.

13 Committee on Economic Affairs and Development, Parliamentary Assembly of Council of Europe, Doc 8458.

## III.2. THE ENVIRONMENTAL-SOCIAL-GOVERNANCE (ESG) TRANSITION GAP

The relationship between the economic transition and the three other transitions is complex. In the business literature, ESG stands for environmental, social, and governance. These are the non-financial factors which are crucial in measuring the sustainability and stakeholder impact of a company or business, in contrast to focusing solely on shareholder profits. A similar perspective can be applied at the country level, with the ESG transition gap[14] (**Table 5**).

ESG transition gaps indicate, independently of the positioning on the TPI ranking, the extent to which an increased effort in economic transition is particularly needed. Countries with a positive ESG transition gap need to do more on economic transition. It is the case of several emerging and developing countries, but also for instance the case of the United Kingdom and Spain, even if to a lesser extent. In contrast, countries with pronounced negative gaps are not using sufficiently their economic resources to speed up progress in the three other pillars. This could be the case for instance of South Korea, Saudi Arabia and the United States.

For a proper interpretation for a given country, ESG transition gaps need to be considered jointly with the overall TPI score:

- It is preferable to have a high TPI score and a balanced profile (ESG transition gap around 0%). The lowest positive gap is that of Switzerland, which has already been singled out as the TPI top-ranked country, the only country with leader performance in the TPI and all four transitions. In that respect, minor negative gaps, such as the cases of Sweden and Finland, are not significantly distinct from balance.

- If the profile is not balanced, then it is better to do more on ESG, given the economic clout. Nigeria, Montenegro, Albania, Kenya, the Philippines, Bosnia and Herzegovina, Indonesia, Armenia, Georgia, Vietnam, Egypt, Colombia, North Macedonia, India, Morocco, Romania, the United Kingdom, Algeria, Bulgaria, and Tunisia all show positive gaps greater than 30%.

- The worst combination is getting a pronounced negative ESG transition gap score as in South Korea, Saudi Arabia, the United States, Singapore, Iceland, Canada, China, Russia, and South Africa (with negative gaps below -4.8%).

With this gap analysis, it is possible to identify countries having a policy mix that allows them to perform best in the TPI with their economic resources. To avoid a potentially biased interpretation resulting from low levels of economic transition, **Table 6** presents the ranking of the top 10 transition gap for countries with lead, strong or good performance in economic transition.

These ten countries are: Malta, Italy, France, the Netherlands, Poland, Czechia, Hungary, New Zealand, Norway, and Denmark for which the economic/ESG transition efficiency in the use of economic transition efforts for the other transitions is especially high. It is noteworthy that the EU shows a good performance with a positive gap of 13.5%. It is reasonable to think that the specifiers of policy mixes related to economic transition may explain the contribution to increased TPI performance; it is the role of policy analysis to scrutinise these policies.

14 The ESG transition gap is computed as the difference between the weighted average of the social, environmental, and governance transition scores and the economic transition score, divided by the TPI score.

**TABLE 6: Top 10 positive ESG gap for leaders, strong or good performers in economic transition**

| | ESG GAP TOP 10 | | SCORES | | | ESG GAP |
|---|---|---|---|---|---|---|
| | | | TPI | ECONOMIC TRANSITION | ESG WEIGHTED AVERAGE | (% OF TPI) |
| 1 | MT | Malta | 72.4 | 58.7 | 75.8 | 23.6% |
| 2 | IT | Italy | 68.8 | 57.8 | 71.5 | 20.0% |
| 3 | FR | France | 70.6 | 59.6 | 73.3 | 19.5% |
| 4 | NL | Netherlands | 76.5 | 65.0 | 79.4 | 18.8% |
| 5 | PL | Poland | 63.6 | 55.3 | 65.6 | 16.3% |
| | **EU27** | **European Union** | 68.8 | 61.4 | 70.7 | 13.5% |
| 6 | CZ | Czechia | 67.7 | 61.2 | 69.4 | 12.1% |
| 7 | HU | Hungary | 62.8 | 57.1 | 64.3 | 11.5% |
| 8 | NZ | New Zealand | 61.2 | 55.8 | 62.5 | 11.0% |
| 9 | NO | Norway | 72.8 | 66.7 | 74.4 | 10.5% |
| 10 | DK | Denmark | 77.4 | 71.6 | 78.9 | 9.4% |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[
Note: 'ESG gap (% of TPI)' refers to the difference between the sum of the social, environmental, and governance (ESG) pillar weighted scores and the economic pillar score, as a percentage of the TPI score, in 2019.
Source: European Commission, Transitions Performance Index 2020.



# IV. ECONOMIC TRANSITION

# IV. ECONOMIC TRANSITION

## IV.1. OVERVIEW

The agenda to design an equitable and sustainable prosperity model cannot take place in a vacuum. The economy should help to achieve such a goal. For a huge transformation to occur, it is notably necessary to: (i) provide sufficient funding, (ii) secure resources for jobs, housing, food, etc., (iii) ensure that research and innovation (R&D) and training facilitate progress, (iv) invest in the education of future generations and (v) guarantee that this sound economic basis is rooted within the region in order to increase resilience worldwide.

The ranking and scores in economic transition measure progress towards such an agenda (**Table 7**). Switzerland (top 1), Sweden and South Korea are the only countries in the leaders group in economic transition, while 14 countries are strong performers. This demonstrates that the transition process is still in its infancy, which is corroborated by the large spread of performances across the various indicators and the near absence of strengths for the 30 weak performers. The hypothesis behind the TPI model is that the transition process cannot succeed if it is not anchored in economic transition. The scores exhibited here plead for the need for an utmost effort to progress for all countries.

***Economic transition, leaders and strong performers***

Only the leader, Switzerland, has balanced strong performance in all sub-pillars. The absence of a clear pattern makes it difficult to identify what could be a successful policy mix for an economic transition model. Combining a strong performance in education and wealth, however, is a promising approach. Switzerland, Sweden, South Korea, Denmark, Austria, Germany, Belgium, Finland, Norway, Iceland, and Luxembourg indeed achieve such a combination. Nevertheless, Ireland and Singapore, both in strong economic transition, are respectively weak and moderate performers in education.

Four countries are leaders in industrial base: South Korea, Ireland, Japan, and China. And six other countries perform strongly: Switzerland, Austria, Singapore, Germany, Slovenia, and Czechia, with only four of them being EU countries. In this respect, the recent communication 'A new ERA for Research and Innovation'[15] calls for a refocusing of the European Research Area on developing a strong European industrial base and technological sovereignty.

***Economic transition, good performers***

All good performers are among leaders or strong performers in education, except for Israel. Estonia, Canada, Malta, Hungary, New Zealand and Poland lead in this indicator.

Apart from Israel, this group shows moderate or weak performance in labour productivity and R&D intensity (Czechia, Estonia, Canada, France, Malta, Italy, Hungary, New Zealand and Poland).

***Economic transition, moderate and weak performers***

Education seems to be the factor that explains the performance of the moderate group compared to the weak performers. Latvia, Portugal, and Croatia are leaders, while the United Kingdom, Lithuania, Spain, Cyprus, Russia and Greece are strong performers.

In the group of weak performers, Ukraine and Moldavia are leaders and Brazil and Tunisia are strong performers in education.

China is the only country within these two groups to be a leader in industrial base.

15 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2020:628:FIN

## TABLE 7: Economic transition pillar ranking

| COUNTRY | | PROGRESS | 2019 SCORES | | | | |
|---|---|---|---|---|---|---|---|
| RANK | NAME | 2010-2019 | ECONOMIC TRANSITION | Education | Wealth | Labour productivity & R&D intensity | Industrial base |
| 1 | Switzerland | 8.8% | 80.0 | 87.6 | 88.3 | 69.2 | 74.0 |
| 2 | Sweden | 8.9% | 75.2 | 96.5 | 72.8 | 65.0 | 62.2 |
| 3 | South Korea | 15.0% | 75.1 | 71.3 | 59.7 | 69.2 | 93.2 |
| 4 | Denmark | 5.1% | 71.6 | 88.7 | 71.8 | 63.1 | 60.0 |
| 5 | Ireland | 20.0% | 70.0 | 38.7 | 100.0 | 60.4 | 87.8 |
| 6 | Austria | 6.8% | 69.7 | 76.3 | 71.4 | 63.1 | 66.5 |
| 7 | Singapore | 6.1% | 69.3 | 47.1 | 100.0 | 71.7 | 69.4 |
| 8 | Germany | 5.2% | 69.3 | 69.5 | 71.4 | 60.4 | 73.5 |
| 9 | Belgium | 7.3% | 68.2 | 87.6 | 66.0 | 60.5 | 55.3 |
| 10 | Finland | -5.1% | 68.0 | 81.1 | 64.0 | 58.0 | 64.2 |
| 11 | Norway | 9.9% | 66.7 | 72.2 | 100.0 | 64.4 | 40.7 |
| 12 | Iceland | 5.8% | 66.4 | 89.3 | 74.8 | 49.0 | 49.5 |
| 13 | Luxembourg | -4.6% | 66.3 | 66.7 | 100.0 | 62.6 | 46.1 |
| 14 | United States | 10.3% | 65.7 | 62.4 | 86.8 | 66.7 | 54.2 |
| 15 | Slovenia | 1.6% | 65.5 | 89.2 | 51.3 | 42.3 | 66.8 |
| 16 | Japan | 2.7% | 65.3 | 58.2 | 60.7 | 57.3 | 80.7 |
| 17 | Netherlands | 7.8% | 65.0 | 73.2 | 77.8 | 52.4 | 56.7 |
| | **European Union** | 5.5% | 61.4 | 72.0 | 58.9 | 48.3 | 61.1 |
| 18 | Czechia | 8.1% | 61.2 | 74.2 | 51.8 | 40.7 | 68.0 |
| 19 | Estonia | 9.2% | 60.4 | 96.5 | 47.8 | 34.0 | 50.2 |
| 20 | Canada | 6.6% | 60.0 | 76.4 | 67.6 | 44.1 | 49.2 |
| 21 | France | 2.8% | 59.6 | 69.3 | 63.0 | 54.0 | 51.2 |
| 22 | Israel | 8.1% | 59.4 | 57.0 | 52.2 | 71.1 | 58.8 |
| 23 | Malta | 12.0% | 58.7 | 83.0 | 63.2 | 33.9 | 48.0 |
| 24 | Italy | 2.1% | 57.8 | 70.4 | 54.0 | 44.3 | 56.7 |
| 25 | Hungary | 5.9% | 57.1 | 81.4 | 45.4 | 34.6 | 55.4 |
| 26 | New Zealand | 2.5% | 55.8 | 76.6 | 54.6 | 35.2 | 49.5 |
| 27 | Poland | 15.1% | 55.3 | 79.0 | 45.2 | 31.8 | 54.0 |
| 28 | United Kingdom | -4.6% | 54.9 | 65.7 | 62.4 | 43.8 | 46.6 |
| 29 | Australia | 0.8% | 54.6 | 64.8 | 71.2 | 49.6 | 36.6 |
| 30 | Saudi Arabia | 16.9% | 53.9 | 58.5 | 74.3 | 48.9 | 39.0 |
| 31 | Lithuania | 6.8% | 53.4 | 72.3 | 48.9 | 31.0 | 52.3 |
| 32 | Latvia | 8.7% | 53.1 | 93.0 | 41.9 | 24.2 | 40.0 |
| 33 | China | 15.9% | 52.9 | 53.6 | 26.0 | 32.1 | 83.8 |
| 34 | Spain | 1.0% | 52.5 | 66.3 | 55.5 | 40.3 | 44.9 |
| 35 | Portugal | -8.1% | 52.4 | 75.9 | 44.9 | 33.6 | 46.4 |
| 36 | Slovakia | 10.9% | 51.1 | 61.5 | 48.9 | 31.4 | 55.3 |
| 37 | Croatia | 26.4% | 49.9 | 83.8 | 37.0 | 28.7 | 38.8 |
| 38 | Cyprus | 0.9% | 48.4 | 67.3 | 55.2 | 29.4 | 37.7 |
| 39 | Malaysia | 9.5% | 46.8 | 40.4 | 43.8 | 34.8 | 63.1 |
| | **World** | 8.0% | 46.1 | 47.5 | 29.5 | 32.4 | 64.8 |
| 40 | Russia | 17.5% | 45.9 | 67.8 | 39.5 | 28.7 | 39.7 |
| 41 | Greece | 9.6% | 45.9 | 65.1 | 40.3 | 34.6 | 38.0 |
| 42 | Thailand | 16.3% | 45.1 | 54.7 | 27.2 | 20.4 | 64.1 |
| 43 | United Arab Emirates | 23.1% | 42.6 | 20.2 | 92.6 | 45.6 | 29.7 |
| 44 | Bulgaria | 18.0% | 42.1 | 59.3 | 32.8 | 22.4 | 44.2 |
| 45 | Chile | 26.7% | 42.0 | 64.6 | 35.1 | 20.1 | 38.6 |
| 46 | Ukraine | -6.6% | 41.8 | 84.6 | 13.0 | 11.5 | 38.3 |
| 47 | Romania | 6.6% | 41.3 | 49.0 | 37.3 | 24.4 | 47.5 |
| 48 | Turkey | 25.9% | 41.1 | 37.4 | 37.7 | 33.7 | 52.1 |
| 49 | Moldova | 0.9% | 40.7 | 79.2 | 10.3 | 9.1 | 43.4 |
| 50 | Brazil | 9.1% | 39.4 | 68.4 | 21.9 | 23.4 | 32.6 |
| 51 | Tunisia | 5.4% | 37.9 | 69.2 | 16.9 | 18.7 | 33.6 |
| 52 | South Africa | 3.4% | 37.7 | 56.9 | 18.3 | 22.3 | 41.6 |
| 53 | Serbia | 0.2% | 37.6 | 52.2 | 24.8 | 22.9 | 41.4 |
| 54 | Algeria | 1.1% | 37.1 | 38.7 | 20.9 | 23.9 | 55.2 |
| 55 | Mexico | 8.5% | 36.5 | 41.6 | 27.8 | 18.7 | 49.1 |
| 56 | Argentina | -1.7% | 36.3 | 54.3 | 26.7 | 19.4 | 36.1 |
| 57 | North Macedonia | 31.4% | 34.1 | 45.8 | 22.0 | 15.9 | 42.6 |
| 58 | Morocco | 14.3% | 32.8 | 50.1 | 12.3 | 15.7 | 40.5 |
| 59 | Iran | 14.1% | 32.3 | 41.4 | 23.5 | 26.2 | 33.3 |
| 60 | Colombia | 2.0% | 29.9 | 44.9 | 20.7 | 11.8 | 33.0 |
| 61 | India | 4.7% | 28.9 | 34.4 | 11.2 | 13.0 | 45.7 |
| 62 | Vietnam | 13.3% | 28.6 | 44.6 | 10.8 | 9.3 | 37.6 |
| 63 | Egypt | 5.0% | 28.1 | 30.0 | 18.7 | 21.1 | 37.0 |
| 64 | Indonesia | 14.2% | 28.0 | 33.3 | 18.7 | 11.1 | 40.1 |
| 65 | Georgia | 30.5% | 27.7 | 44.6 | 16.3 | 10.6 | 29.8 |
| 66 | Armenia | 5.4% | 25.8 | 33.0 | 14.8 | 10.7 | 35.9 |
| 67 | Albania | 26.1% | 24.8 | 43.9 | 18.7 | 12.0 | 18.3 |
| 68 | Philippines | 0.9% | 24.4 | 21.9 | 12.6 | 8.5 | 45.5 |
| 69 | Bosnia and Herzegovina | 11.8% | 22.5 | N/A | 19.0 | 15.6 | 29.5 |
| 70 | Montenegro | 9.6% | 21.2 | N/A | 26.8 | 18.9 | 19.0 |
| 71 | Kenya | -6.8% | 19.5 | 35.4 | 5.2 | 10.3 | 19.2 |
| 72 | Nigeria | 37.6% | 13.4 | N/A | 8.1 | 7.8 | 20.6 |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Note: 'Progress 2010-19' refers to the percentage growth of economic transition scores between 2010 and 2019.

Source: European Commission, Transitions Performance Index 2020.

## IV.2. ECONOMIC TRANSITION, PROGRESS OVER 2010-2019

In terms of progress over the past decade, **Table 7** highlights:

- For many countries, their high rate of progress can be attributed to a catch-up effect[16] on initial low levels in economic transition. The top 10 countries in terms of progress in economic transition are Nigeria, North Macedonia, Georgia, Chile, Croatia, Albania, Turkey, the United Arab Emirates, Ireland and Bulgaria, most of them in moderate or weak TPI transition groups.

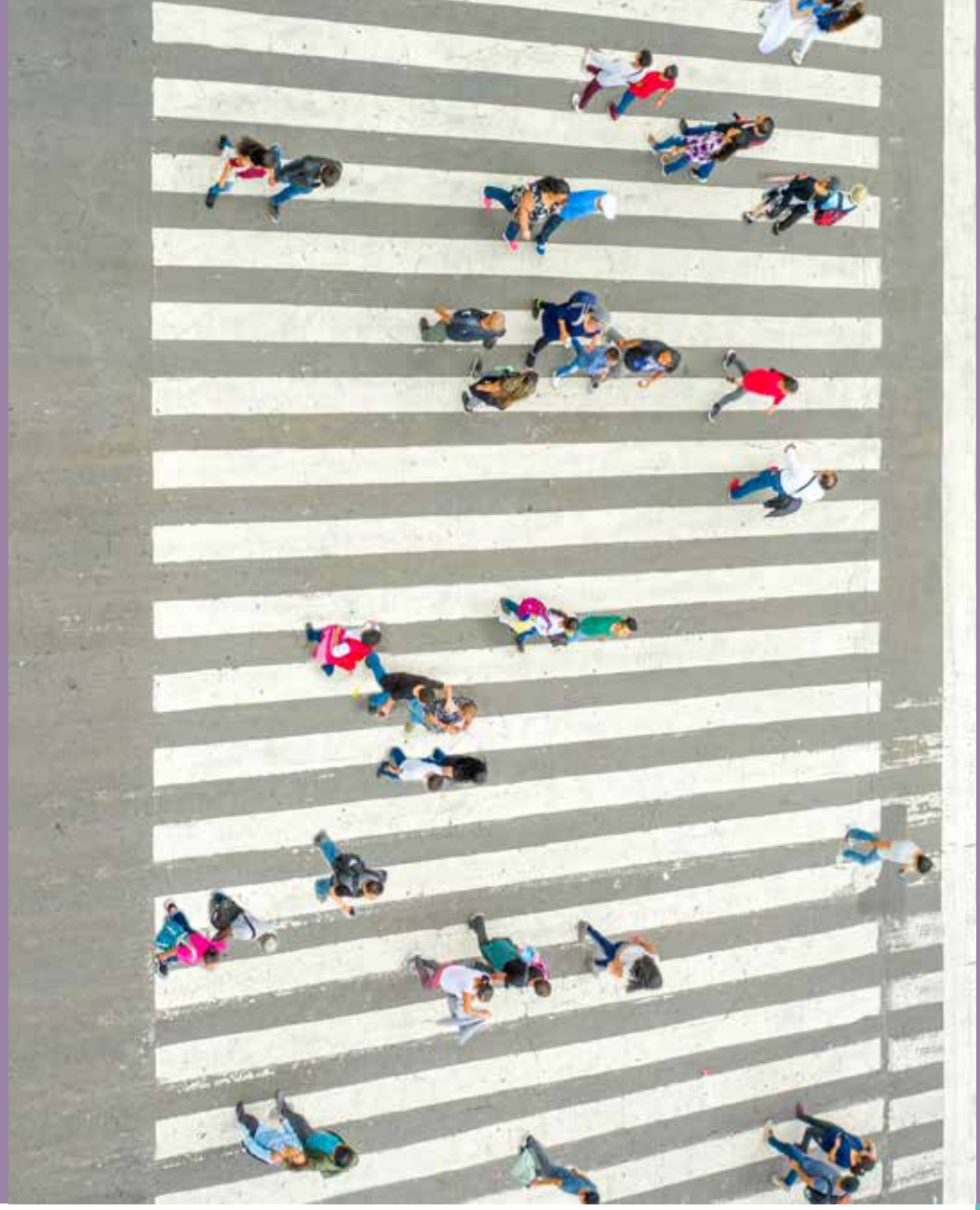
- Conversely, most of the countries with declines in performance are high-income countries (Finland, Luxembourg, Portugal, the United Kingdom), together with upper middle-income Argentina and lower middle-income countries Kenya and Ukraine.

- Countries with high scores in economic transition tend to show relatively greater progress, as shown by the countries in the top 10 in economic transition, except for Finland.

Among countries with a high level of income per capita in 2019, progress is noticeable for the United Arab Emirates, Iran, Saudi Arabia, South Korea, the United States, Norway.

As a measure of efficiency in the use of resources, progress in economic transition must be accompanied by progress in the three other transitions; this is analysed in section III.2 and **Table 5**.

16 For the analysis of the four dimensions, 'catch-up effect' refers to the fact that a) the same absolute progression when applied to a low starting point corresponds to a higher percentage rate of increase and b) the initial progress can be easier by picking-up 'low hanging fruits'. Therefore, a high rate of progress that is partly due to a catch-up effect should be seen in somewhat relative terms.



# V. SOCIAL TRANSITION

# V. SOCIAL TRANSITION

## V.1. OVERVIEW

Social transition is a condition of social cohesion and resilience, much needed in case of profound transformations implying changes in training and adaptation to new life conditions. It is also a component of well-being, as it maximises welfare. The reduced choice of indicators provides a snapshot of key features, as explained in the conceptual framework.

The fact that 20 countries achieve leadership in three or four sub-pillars highlights that achieving progress in that transition is an achievable objective, and an issue of policy priorities (**Table 8**). The achievement of leadership by several countries in the second half of the ranking corroborates this assessment

***Social transition, leaders and strong performers***

Among the 23 countries that are leaders in social transition, the first 7 achieve leader position in all four sub-pillars. New Zealand is the only country with a less-than-strong performance in any sub-pillar, with a merely good performance in Equality. Within this group, the Equality indicator is where the room for progress is the greatest.

In the group of strong performers, the situation is also rather satisfactory, with no country in moderate or weak transition in any of the sub-pillars, with the exception of Israel in equality, Greece in work and inclusion and Ukraine in health and free or non-remunerated time. All countries in that group achieve leadership in at least one sub-pillar, except for Croatia. Estonia achieves leadership in three dimensions, its health performance being unfortunately the factor that limits its overall score in the social transition.

***Social transition, good performers***

The group of good performers in social transition presents a more dispersed performance across the four sub-pillars; the TPI may therefore be useful in drawing attention to the risks of imbalance. Performance in 'Free or non-remunerated time' appears more difficult to achieve than for the two previous groups. Singapore's weak performance in that sub-pillar seems to indicate that this difficulty can have cultural roots and that income levels are not a unique factor for explaining this.

Chile and Singapore rank among leaders for one sub-pillar; while North Macedonia and Armenia show positions of weakness; and Moldova and Algeria show both strong and weak positions, a clear demonstration of imbalance.

***Social transition, moderate and weak performers***

Among moderate and weak transition countries, Egypt achieves leadership in Equality, while seven countries rank among strong performers in the health pillar. Kenya is strong in Work & inclusion, while Brazil is strong in Free or non-remunerated time.

Only Nigeria, South Africa and Kenya lag behind in health.

## V.2. SOCIAL TRANSITION, PROGRESS OVER 2010-2019

In terms of progress over the past decade, **Table 8** highlights:

- There is no clear-cut catch-up effect in social transition; results appear to be determined by internal policy choices. Among the 16 countries with moderate or weak social transition scores, Argentina, Brazil, Colombia, Iran, Mexico, the Philippines, Saudi Arabia, South Africa, Tunisia and Turkey progress by an average of 9.5% for middle income countries (all but Saudi Arabia which has progressed by 1.6%). On the other hand, Bosnia and Herzegovina, Egypt, India, Kenya, Morocco and Nigeria see their scores declining over the decade.

- There seems to be a significant divide between countries progressing and countries declining, also an indication of country-specific characteristics. Twelve countries increase their performance in social transition by more than 10% over the period, with an average of 14.7%: South Africa (+26.5%), North Macedonia, Moldova, Montenegro, Serbia, Malaysia, Malta, Colombia, Poland, Russia, Argentina and China. On the other hand, 13 countries decline: Bulgaria, the United States, Bosnia and Herzegovina, Luxembourg, Morocco, the United Arab Emirates, Egypt, India, Kenya, Ukraine, Albania, Armenia and Nigeria (-18.9%)

## TABLE 8: Social transition pillar ranking

| COUNTRY | | PROGRESS | 2019 SCORES | | | | |
|---|---|---|---|---|---|---|---|
| RANK | NAME | 2010-2019 | SOCIAL TRANSITION | Health | Work & inclusion | Free or non-remunerated time | Equality |
| 1 | Iceland | 2.7% | 90.1 | 91.1 | 90.8 | 93.4 | 87.1 |
| 2 | Norway | 0.1% | 86.4 | 89.4 | 85.8 | 85.9 | 84.9 |
| 3 | Sweden | 1.7% | 85.7 | 88.5 | 86.6 | 91.4 | 80.0 |
| 4 | Netherlands | 2.1% | 84.5 | 87.7 | 83.0 | 86.1 | 82.1 |
| 5 | Denmark | 1.4% | 84.3 | 85.8 | 83.2 | 86.5 | 82.7 |
| 6 | Slovenia | 6.5% | 83.1 | 77.8 | 77.4 | 78.2 | 93.0 |
| 7 | Finland | 4.8% | 82.4 | 82.6 | 76.1 | 82.4 | 85.8 |
| 8 | Switzerland | 3.9% | 80.5 | 91.3 | 74.8 | 88.2 | 71.6 |
| 9 | Germany | 1.4% | 80.3 | 84.0 | 80.5 | 88.7 | 72.7 |
| 10 | Belgium | 4.0% | 80.0 | 83.9 | 76.8 | 72.2 | 83.6 |
| 11 | Czechia | 9.2% | 80.0 | 73.4 | 71.4 | 76.0 | 91.8 |
| 12 | France | 6.2% | 79.8 | 89.4 | 79.1 | 77.6 | 74.7 |
| 13 | Austria | 4.6% | 79.7 | 86.3 | 73.9 | 80.9 | 77.6 |
| 14 | Japan | 5.7% | 79.3 | 92.0 | 75.3 | 81.5 | 71.3 |
| 15 | New Zealand | 3.8% | 78.9 | 89.4 | 85.7 | 83.8 | 64.9 |
| 16 | Malta | 13.7% | 78.6 | 87.7 | 72.8 | 70.4 | 80.0 |
| 17 | Cyprus | 2.7% | 78.5 | 89.7 | 71.8 | 75.5 | 76.0 |
| 18 | Australia | 6.2% | 77.5 | 89.4 | 77.7 | 79.4 | 67.9 |
| 19 | United Kingdom | 2.8% | 77.5 | 86.5 | 80.7 | 82.6 | 66.3 |
| 20 | Ireland | 3.9% | 76.3 | 87.0 | 74.5 | 72.2 | 72.1 |
| 21 | Canada | 1.8% | 76.2 | 90.0 | 76.5 | 75.5 | 66.7 |
| 22 | Portugal | 6.7% | 75.7 | 83.5 | 76.4 | 77.1 | 68.9 |
| | **European Union** | 4.6% | 75.4 | 82.6 | 72.3 | 75.8 | 71.7 |
| 23 | Luxembourg | -1.1% | 75.1 | 87.0 | 78.2 | 76.4 | 64.2 |
| 24 | Slovakia | 8.0% | 74.6 | 67.5 | 62.9 | 73.0 | 87.3 |
| 25 | Estonia | 9.2% | 74.4 | 65.4 | 76.5 | 79.5 | 76.7 |
| 26 | Spain | 3.6% | 73.7 | 90.7 | 69.3 | 74.4 | 63.6 |
| 27 | South Korea | 7.8% | 72.9 | 85.7 | 69.9 | 61.3 | 72.2 |
| 28 | Israel | 7.9% | 71.9 | 88.9 | 83.5 | 72.4 | 53.0 |
| 29 | United Arab Emirates | -2.5% | 71.3 | 69.9 | 67.2 | 84.4 | 67.3 |
| 30 | Poland | 12.3% | 70.8 | 67.9 | 64.1 | 67.8 | 78.5 |
| 31 | Hungary | 8.2% | 70.5 | 63.6 | 68.3 | 72.1 | 75.8 |
| 32 | Italy | 2.3% | 68.7 | 89.9 | 61.4 | 63.1 | 61.0 |
| 33 | Croatia | 7.6% | 68.3 | 71.2 | 60.3 | 61.8 | 74.5 |
| 34 | Latvia | 7.8% | 67.9 | 57.9 | 76.5 | 79.2 | 63.7 |
| 35 | Vietnam | 4.6% | 67.2 | 64.0 | 80.6 | 64.2 | 63.5 |
| 36 | Greece | 1.2% | 67.1 | 85.0 | 52.5 | 62.2 | 65.4 |
| 37 | Lithuania | 4.7% | 66.4 | 56.5 | 74.8 | 82.6 | 59.6 |
| 38 | Ukraine | -5.3% | 66.3 | 51.0 | 57.9 | 53.1 | 89.5 |
| 39 | Thailand | 5.0% | 65.0 | 63.3 | 72.1 | 61.8 | 63.9 |
| 40 | China | 10.4% | 64.7 | 76.8 | 68.4 | 57.1 | 58.2 |
| 41 | Albania | -7.4% | 64.4 | 72.5 | 53.0 | 55.6 | 70.2 |
| 42 | United States | -0.8% | 62.7 | 73.2 | 67.5 | 68.7 | 49.0 |
| 43 | Bulgaria | -0.4% | 62.1 | 61.8 | 66.3 | 75.0 | 52.6 |
| 44 | Russia | 11.8% | 62.0 | 47.0 | 71.4 | 71.8 | 61.8 |
| 45 | Romania | 4.3% | 61.6 | 62.4 | 62.3 | 65.1 | 58.6 |
| 46 | Serbia | 14.6% | 61.1 | 68.0 | 57.5 | 61.5 | 58.0 |
| 47 | Moldova | 16.1% | 60.9 | 52.2 | 50.8 | 30.0 | 90.5 |
| 48 | Malaysia | 14.4% | 60.2 | 67.7 | 66.2 | 59.2 | 51.9 |
| 49 | North Macedonia | 16.8% | 60.0 | 69.3 | 43.9 | 60.2 | 62.6 |
| 50 | Armenia | -8.0% | 59.9 | 62.1 | 43.1 | 56.3 | 70.1 |
| 51 | Montenegro | 16.0% | 59.6 | 70.4 | 56.7 | 60.3 | 53.3 |
| 52 | Georgia | 4.1% | 58.6 | 54.9 | 54.9 | 61.6 | 61.7 |
| 53 | Chile | 9.7% | 58.2 | 76.2 | 56.4 | 58.7 | 46.2 |
| 54 | Indonesia | 6.3% | 57.5 | 51.4 | 58.5 | 63.0 | 58.0 |
| 55 | Algeria | 0.0% | 57.2 | 68.2 | 22.8 | 28.5 | 85.5 |
| | **World** | 3.1% | 55.8 | 62.5 | 48.3 | 50.8 | 58.0 |
| 56 | Singapore | 5.0% | 55.3 | 98.9 | 51.9 | 29.7 | 40.8 |
| 57 | Tunisia | 7.8% | 54.0 | 67.6 | 20.8 | 39.0 | 71.8 |
| 58 | Kenya | -4.7% | 53.8 | 40.1 | 68.6 | 56.6 | 53.5 |
| 59 | Mexico | 7.8% | 52.4 | 69.4 | 48.0 | 51.5 | 43.3 |
| 60 | Bosnia and Herzegovina | -0.8% | 51.9 | 66.4 | 27.5 | 25.5 | 70.5 |
| 61 | Colombia | 13.6% | 50.3 | 64.6 | 56.0 | 61.0 | 30.6 |
| 62 | Turkey | 5.8% | 49.9 | 64.8 | 30.0 | 50.3 | 50.4 |
| 63 | Philippines | 4.5% | 49.8 | 47.9 | 59.2 | 49.7 | 45.9 |
| 64 | Argentina | 10.7% | 49.3 | 69.7 | 39.8 | 34.6 | 48.7 |
| 65 | Brazil | 2.4% | 47.9 | 61.3 | 59.0 | 65.5 | 21.9 |
| 66 | Morocco | -1.7% | 47.5 | 66.8 | 20.4 | 33.8 | 57.2 |
| 67 | Egypt | -2.8% | 47.4 | 49.6 | 11.1 | 27.9 | 77.7 |
| 68 | Iran | 6.8% | 44.8 | 66.3 | 17.0 | 32.3 | 52.5 |
| 69 | Saudi Arabia | 1.6% | 41.3 | 68.3 | 18.0 | 47.6 | 31.8 |
| 70 | India | -3.9% | 39.7 | 45.6 | 6.6 | 24.3 | 63.1 |
| 71 | Nigeria | -18.6% | 33.3 | 12.3 | 37.9 | 30.7 | 47.3 |
| 72 | South Africa | 26.5% | 26.0 | 27.4 | 38.4 | 49.4 | 4.6 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

Note: 'Progress 2010-19' refers to the percentage growth of economic transition scores between 2010 and 2019.

Source: European Commission, Transitions Performance Index 2020.

c) Countries with a high score in social transition all show progress, although at a lower rate. The top ten progress by an average of 3%, with high rates in Malta (+ 13.7%), Czechia (9.2%) and to a lesser extent Portugal, Slovenia, Australia, France, and Japan (above 5%).

As there is no clear pattern of progress in social transition in terms of base levels (in 2010) or income levels, explanations for diverging paths may be found in more detailed analyses of country profiles.

## V.3. TPI AND EQUALITY

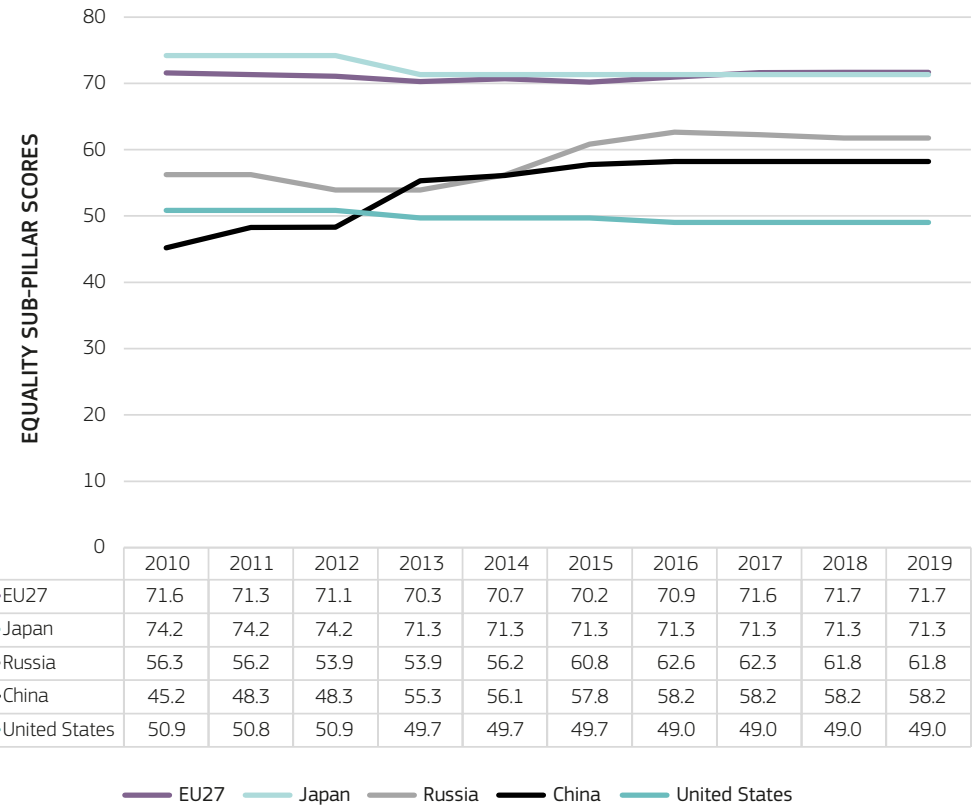
***Evolution of inequalities***

The evolution of inequalities is a fundamental element of well-being. Economic and environmental transitions, if not sufficiently anticipated and accompanied by public measures, may affect the poorest and most vulnerable.

The Equality indicator is central to the TPI and after consultation with experts and stakeholders is measured by combining two indicators:

- The Gini coefficient, which is an objective measure of the dispersion of revenues of the whole population. Mathematically there cannot be a more comprehensive measure of inequality. The indicator was retained after taxes and social transfers, so that countries with effective income redistribution policies are recognised.

**FIGURE 8: TPI equality sub-pillar scores**



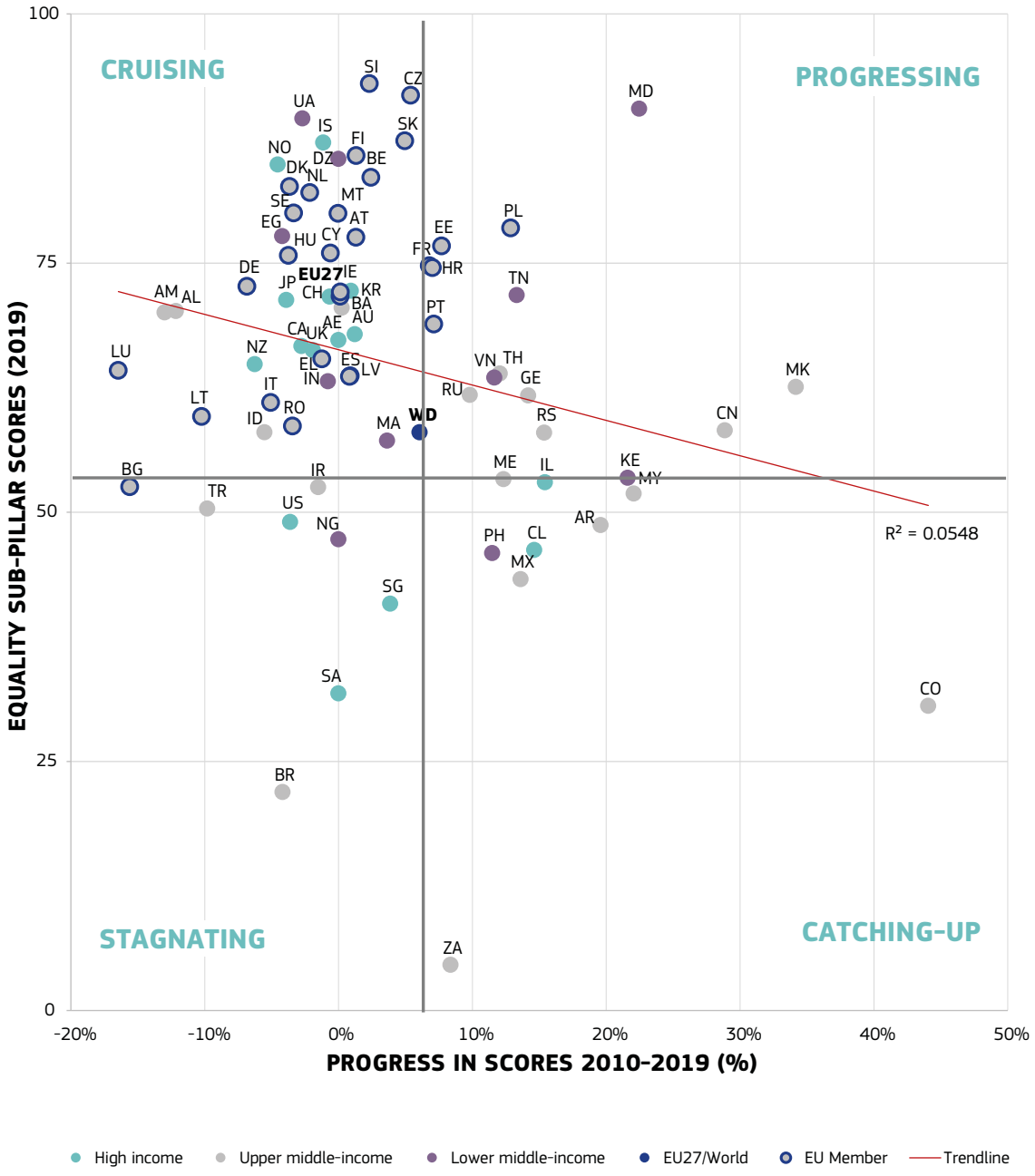

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| EU27 | 71.6 | 71.3 | 71.1 | 70.3 | 70.7 | 70.2 | 70.9 | 71.6 | 71.7 | 71.7 |
| Japan | 74.2 | 74.2 | 74.2 | 71.3 | 71.3 | 71.3 | 71.3 | 71.3 | 71.3 | 71.3 |
| Russia | 56.3 | 56.2 | 53.9 | 53.9 | 56.2 | 60.8 | 62.6 | 62.3 | 61.8 | 61.8 |
| China | 45.2 | 48.3 | 48.3 | 55.3 | 56.1 | 57.8 | 58.2 | 58.2 | 58.2 | 58.2 |
| United States | 50.9 | 50.8 | 50.9 | 49.7 | 49.7 | 49.7 | 49.0 | 49.0 | 49.0 | 49.0 |

*Source: European Commission, Transitions Performance Index 2020.*

- The share of revenues held by the poorest 20% of the population[17]. That countries must care for the revenues of the poorest and most vulnerable segments of society is a political choice, which is complemented in other sub-pillars by minimum revenues, by concern for women gaining access to the job market.

**Figure 8** compares the degree to which some countries have evolved along this indicator over time. The EU overtakes Japan. China overtakes the United States, with Russia showing steady progress as well. The figure illustrates that the EU and Japan are in quite a different situation than China or Russia, and even more so than the United States.

**FIGURE 9: Equality sub-pillar score and progress over 2010-2019**




*Source: European Commission, Transitions Performance Index 2020.*

17 The situation of the poorest population is already integrated in the Gini coefficient. The addition of this sub-indicator simply reinforces the need for an additional effort for that social group.

The evolution of Equality is the result of policy choices and not predetermined by any of the variables of the TPI (**Figure 9**). The evolution of the top five is particularly positive, except for Ukraine due to the impact of war.

As for the degree to which equality in the EU has evolved, the TPI Equality indicator remains quite stable after a deterioration in 2011-2013[18] (**Figure 8**).

***An open issue: interactions between TPI performance and inequalities***

Of course, as the Equality indicator is part of the TPI, there is by definition a statistical link. However, Equality is only 1 indicator among 25, so this element does not exclude a more general reflection on the relation between inequalities and TPI as a different approach to measure prosperity.

The question examined here is not whether equality contributes to TPI, as by definition it does, but whether progress in the four transitions encourages/makes easier progress in equality. In other words, whether a policy mix that promotes progress towards harmonious and sustainable prosperity creates conditions favourable to progress in equality.

***The link between inequalities and growth***

A first point to underline is that the IMF and other organisations consider in their recent publications inequalities to have a negative impact. For example, IMF research has shown that persistently high inequality is associated with lower, less durable economic growth and greater financial instability — which makes reducing inequality directly relevant for policymakers.

Income gaps between countries are narrowing. However, inequality within countries rose from the mid-1980s to the mid-2000s (especially in advanced economies). These developments are complex and vary depending on the income group and country-specific factors[19].

Such an assessment by the IMF is quite new, as the relationship between inequalities and growth has been the subject of multiple economic theories with divergent conclusions.

Economists who consider inequalities to have a positive impact on growth emphasised that inequalities contribute to investment[20], encourage risk-taking[21] and play a role in allowing the initial stage of wealth accumulation, which is needed to achieve significant investments[22].

In contrast, inequalities would have a negative impact on growth because of the resulting insecurity, which would slow down investment[23]. Also, the absence of social consensus would block reforms and prevent economies from adapting[24], and inequalities would put a brake on the accumulation of human capital necessary for modern economies[25].

In reality, the interactions are multiple, and the empirical data makes it difficult to decide clearly on the dominant impact of one or more of these factors. In addition, several economists expect a U-shaped curve affecting this relationship and stress the difficulty of having reliable and comparable data between countries. Nevertheless, it seems that a new consensus highlighted by the recent IMF report[18] is now starting to emerge, with the conclusion that even if there is no solid quantification, the evidence that inequalities have a negative impact on growth is clearer. This is for instance the opinion of Paul Krugman, who first had been reluctant to reach such a conclusion[26].

18 The financial crisis (2008-2010), banking crisis (2010-2012) and sovereign debt crisis (mainly 2010-2014) may have had an impact, but the linkages are not assessed here.
19 IMF (2018). IMF Annual Report 2018: Building a shared future
20 Nicholas Kaldor, 1957, A Model of Economic Growth, The Economic Journal, Volume 67, Issue 268, 1 December 1957, Pages 591–624, https://doi.org/10.2307/2227704
21 Noble laureate 1996 James A. Mirrlees, 1971 , An Exploration in the Theory of Optimum Income Taxation, Review of Economic Studies 38: 175–20, arguing in favour of an optimal maximum level of taxation in order not to excessively reduce such incentives.
22 Galor, Oded & Tsiddon, Daniel, 1997, Technological Progress, Mobility, and Economic Growth, American Economic Review, American Economic Association, vol. 87(3), pages 363-382, June.
23 Douglas A. Hibs, Jr., 1973, Mass Political Violence: A Ooss-National Causal Analysis. New York: John Wiley and Sons.
24 Fernandez, Raquel & Rodrik, Dani, 1991, Resistance to Reform: Status Quo Bias in the Presence of Individual-Specific Uncertainty, American Economic Review, American Economic Association, vol. 81(5), pages 1146-1155, December
25 Knack, Stephen and Keefer, Philip, 1996, Does inequality harm growth only in democracies? A replication and extension, World Bank, https://mpra.ub.uni-muenchen.de/25043/1/MPRA_paper_25043.pdf
26 Paul Krugman, « Inequality is a drag », New-York Times (8 August 2014)

The TPI report provides two new elements. First, by making it possible to replace the 'growth' variable (defined by the variation in GDP) by a holistic TPI metric, it is possible to better integrate the elements of the second group of economists, which target systemic disturbances in the functioning of the economy in the event of excessive inequalities. Second, by using a definition of inequalities that can adapt to societies with different patterns of wealth distribution, it facilitates comparison between countries.

However, even with these two new elements, the impact of inequalities on fair and sustainable prosperity as measured by the TPI remains a challenge that this report does not address.

At this stage, let us instead consider a related question. If the promotion of less unequal societies is a political objective considered desirable by our societies, especially in times of transformation, what are the conditions that favour such a development? To do this, the correlation between the TPI Equality sub-pillar and other TPI indicators, including the TPI index and each of the four transitions, was tested. None of the elements taken in isolation has a marked correlation with Equality. On the other hand, the TPI has a net positive correlation of 0.56 with Equality in 2019, higher than with other sub-indicator.

In conclusion, the transition process as illustrated by the TPI does not increase inequalities. In addition, it is not so much a targeted policy, but rather a set of policies aimed at creating a model of sustainable prosperity, which would constitute the most favourable ground for reducing inequalities.

## V.4. A NEW PERSPECTIVE ON UNEMPLOYMENT AND FREE OR NON-REMUNERATED TIME

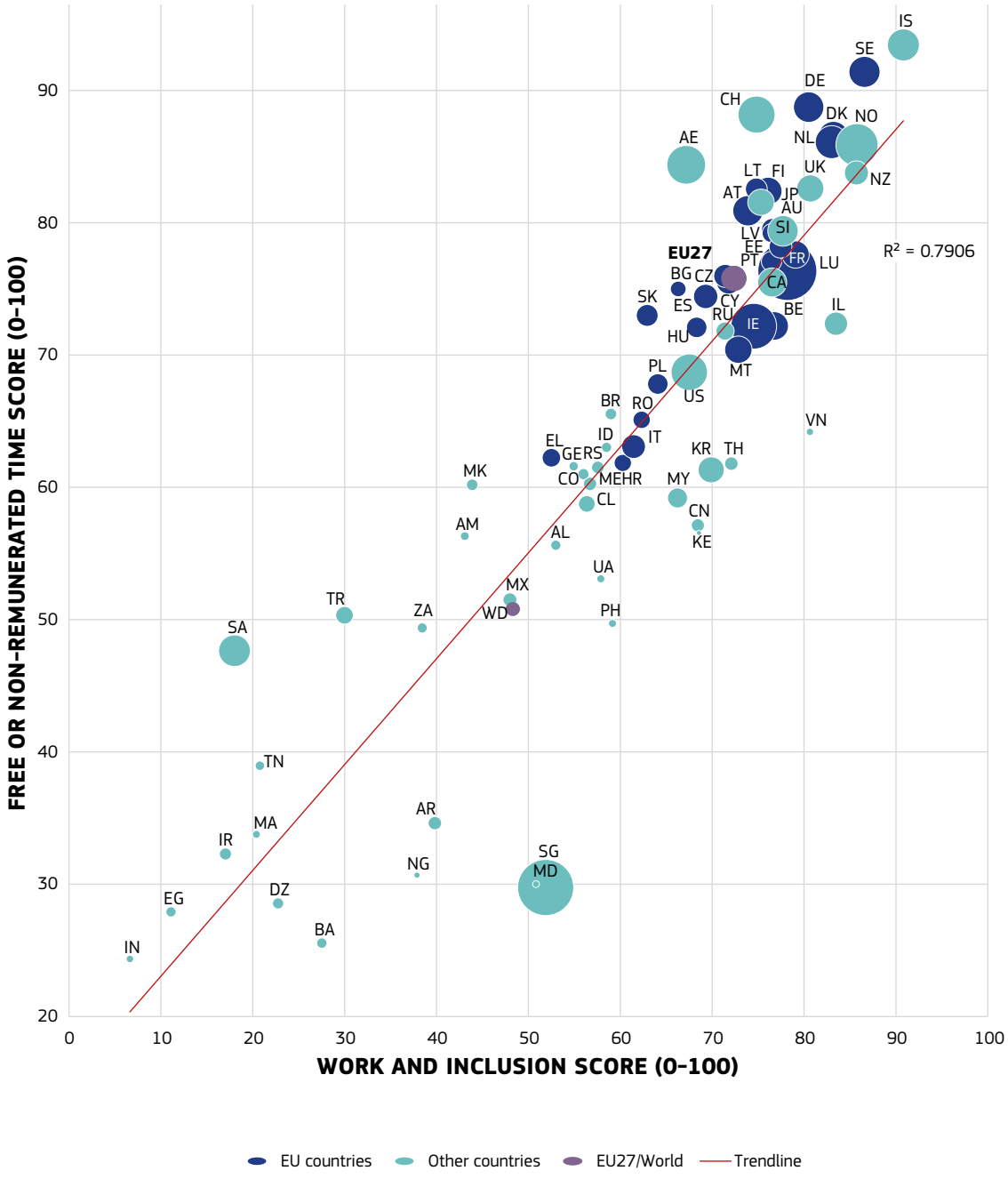
Economic theorists tend to consider the reduction of working time as a factor that increases the cost of employment and therefore unemployment. However, this relation is not linear; beyond a certain length, the average duration of work has a negative impact on health and productivity, and on the real net cost of work. Moreover, the situation can be more complex when considering not only the impact on firms but also the global welfare. Balanced working time favours the sharing of tasks within households, work inclusion and open job markets. In addition, during transformative processes job destruction may temporarily exceed job creation. Therefore, the reduction of working hours may during these periods of time have a balancing effect that maintains the overall consumption level and has a positive impact on the economy and job inclusion.

With the TPI, two new elements can be exploited. First, it is possible to consider unemployment with an emphasis on inclusion. Second, it is possible to consider the value of 'free and non-remunerated time', calculated for the whole population rather than working hours calculated only for the employed population. In addition, the profound transitions affect many aspects of life. The relationship between employment and working time is therefore highly context-dependent, and the TPI database covering a decade could be useful to track the changes over time.

**Figure 10** relates to the sub-pillar Work and inclusion and the sub-pillar Free and non-remunerated time. The two series are largely correlated (R2 0.7893), with a correlation that increases over time (R2 of 0.7303 in 2010). In terms of increasing free or non-remunerated time for citizens, the social transition therefore does not seem to be in contradiction with the development of a lively and inclusive job market.



**FIGURE 10: Work and inclusion and free or non-remunerated time sub-pillars (2019)**




*Source: European Commission, Transitions Performance Index 2020.*

# VI. ENVIRONMENTAL TRANSITION

# VI. ENVIRONMENTAL TRANSITION

## VI.1. OVERVIEW

Environmental transition poses a difficult challenge for countries. Moreover, as the investments and reforms needed are sometimes painful and take time to bear fruit, the transition may be negatively (or moderately) correlated with the other transitions. Consequently, the upper goalposts for this transition have been set at moderate levels to gauge progress, but they could be tightened in future editions. As a result, progress in environmental transition is only a provisional assessment (**Table 9**).

The overall picture shows **significant progress in the reduction of greenhouse gas (GHG) emissions and in the protection of biodiversity**[27]: 41 countries are leaders or strong performers for Emissions reduction indicator and 31 for Biodiversity indicator. In contrast, resource efficiency remains a weak point, with only 9 countries as leaders or strong performers and 40 as weak performers. Energy productivity falls in between.

The environmental transition is a global endeavour. For instance, resource productivity raises issues related to personal choices and way of life. To which extent can GDP growth be decoupled from material consumption? Innovation, the circular economy, digitalisation, and informed consumer choices all contribute to this objective. The multifaceted changes required to meet the environmental challenge make it difficult to tackle it but do not reduce its core importance.

Another issue is the geographical divide as regards the Environmental transition: of the 15 leaders or strong performers, only 2 (Colombia and Japan) are not European countries. Of the 23 good performers, only 7 countries (Morocco, Philippines, Indonesia, Nigeria, Egypt, Tunisia, and Algeria) are outside Europe.

***Environmental transition, leaders and strong performers***

The United Kingdom, Switzerland, Italy, and Malta, all European countries, are leaders in environmental transition, with a balanced high performance on the four indicators, except for the moderate performance of Switzerland in biodiversity protection.

The Netherlands, Denmark, Ireland, Albania, Spain, France, Latvia, Colombia, Croatia, Japan, and Greece are strong performers. Their performance is quite balanced across the indicators, apart from resource productivity, where Denmark, Albania, Latvia, Croatia and Greece are weak performers. Several countries are environmental leaders for several dimensions. This is notably the case of Albania whose overall score is hampered only by resource productivity, while the Netherlands, Denmark, Ireland and Colombia are leaders in two environmental indicators.

***Environmental transition, good performers***

The group of good performers comprises 23 countries. Three are leaders or strong performers in three dimensions: Morocco, Portugal and Romania. Twelve are leaders or strong performers in two dimensions: Lithuania, Germany, Belgium, Slovakia, Hungary, Philippines, Austria, Luxembourg, Sweden, Indonesia, North Macedonia and Nigeria. Most of these efforts are related to emissions reductions and biodiversity.

Resource productivity is weak for nearly all countries. Luxembourg and Belgium, however, succeed in achieving leader and strong performance respectively.

27 Differences in progress may be related to differences in pressure from national public opinions on governmental choices. Indeed, climate change has high visibility, while energy and resource productivity seems less prominent in a context where the cost of energy is lower than in past decades and where the environmental impact of using material resources is often delocalised together with production and trade. The TPI, by focusing on four distinct challenges (sub-pillars on GHG emissions, energy and material resources productivity, and biodiversity protection), will help to increase the visibility of these different aspects of the environmental transition.

## TABLE 9: Environmental pillar ranking

| COUNTRY | | PROGRESS | 2019 SCORES | | | | |
|---|---|---|---|---|---|---|---|
| RANK | NAME | 2010-2019 | ENVIRONMENTAL TRANSITION | Emissions reduction | Biodiversity | Resource productivity | Energy productivity |
| 1 | United Kingdom | 23.5% | 83.1 | 67.9 | 84.3 | 94.0 | 86.2 |
| 2 | Switzerland | 14.5% | 81.4 | 74.2 | 51.4 | 100.0 | 100.0 |
| 3 | Italy | 20.6% | 77.0 | 69.6 | 76.2 | 83.1 | 79.1 |
| 4 | Malta | 10.5% | 75.6 | 77.1 | 66.2 | 58.9 | 100.0 |
| 5 | Netherlands | 24.2% | 74.5 | 50.0 | 82.3 | 100.0 | 65.8 |
| 6 | Denmark | 18.1% | 72.2 | 63.3 | 94.3 | 38.2 | 93.1 |
| 7 | Ireland | 16.8% | 71.9 | 44.6 | 84.9 | 58.1 | 100.0 |
| 8 | Albania | 11.0% | 71.7 | 87.1 | 88.6 | 30.8 | 80.3 |
| 9 | Spain | 19.1% | 68.5 | 67.9 | 55.9 | 76.5 | 73.7 |
| 10 | France | 12.4% | 68.3 | 70.0 | 78.4 | 64.8 | 60.2 |
| 11 | Latvia | 8.0% | 67.2 | 74.6 | 96.3 | 36.1 | 61.8 |
| 12 | Colombia | 13.2% | 65.8 | 86.8 | 40.3 | 45.3 | 90.9 |
| 13 | Croatia | 35.7% | 65.6 | 74.2 | 81.8 | 44.1 | 62.3 |
| 14 | Japan | 19.0% | 65.4 | 57.9 | 56.3 | 84.0 | 63.6 |
| 15 | Greece | 10.4% | 65.2 | 61.7 | 85.1 | 44.9 | 69.2 |
| | **European Union** | 13.3% | 65.2 | 62.9 | 78.4 | 50.8 | 68.6 |
| 16 | Lithuania | 7.0% | 64.8 | 69.6 | 92.3 | 34.3 | 62.9 |
| 17 | Germany | 13.4% | 64.3 | 52.9 | 78.0 | 57.0 | 69.2 |
| 18 | Morocco | 21.8% | 63.6 | 90.8 | 71.7 | 19.5 | 72.5 |
| 19 | Belgium | 18.6% | 63.4 | 56.3 | 80.0 | 67.2 | 50.2 |
| 20 | Slovakia | 16.4% | 62.7 | 66.7 | 83.9 | 45.3 | 55.2 |
| 21 | Hungary | 5.1% | 62.7 | 72.5 | 84.1 | 36.5 | 57.8 |
| 22 | Portugal | 9.6% | 62.2 | 70.0 | 67.4 | 33.0 | 78.6 |
| 23 | Philippines | 11.5% | 62.2 | 93.6 | 38.7 | 41.1 | 75.3 |
| 24 | Austria | 9.4% | 61.6 | 60.0 | 70.4 | 45.1 | 70.9 |
| 25 | Romania | 14.2% | 61.6 | 75.4 | 76.2 | 20.3 | 74.5 |
| 26 | Luxembourg | 31.4% | 61.3 | 16.7 | 64.2 | 80.5 | 83.8 |
| 27 | Slovenia | 15.7% | 60.8 | 64.6 | 78.5 | 44.4 | 55.5 |
| 28 | Norway | 21.0% | 59.3 | 57.1 | 61.7 | 48.8 | 69.5 |
| 29 | Sweden | 11.9% | 59.2 | 77.1 | 67.3 | 37.3 | 55.2 |
| 30 | Indonesia | 18.3% | 58.3 | 85.9 | 43.9 | 31.6 | 71.8 |
| 31 | North Macedonia | 11.6% | 57.9 | 74.0 | 66.6 | 32.2 | 59.0 |
| 32 | Poland | 10.7% | 57.6 | 54.2 | 88.6 | 29.2 | 58.4 |
| 33 | Nigeria | 6.4% | 57.2 | 93.8 | 69.3 | 30.9 | 34.8 |
| 34 | Czechia | 13.8% | 56.9 | 48.8 | 91.3 | 40.6 | 47.1 |
| 35 | Egypt | 5.8% | 55.8 | 87.7 | 44.5 | 30.3 | 60.5 |
| 36 | Tunisia | 10.9% | 55.5 | 85.8 | 53.1 | 23.2 | 59.8 |
| 37 | Algeria | -1.1% | 55.1 | 82.9 | 56.1 | 30.5 | 50.8 |
| 38 | Bulgaria | 2.9% | 55.1 | 63.3 | 97.7 | 20.0 | 39.3 |
| 39 | Mexico | 12.6% | 54.9 | 76.1 | 36.2 | 42.4 | 64.9 |
| 40 | Cyprus | 17.0% | 54.2 | 51.7 | 57.8 | 37.9 | 69.5 |
| 41 | Israel | 27.3% | 52.4 | 58.9 | 20.8 | 54.8 | 75.2 |
| 42 | Thailand | 6.2% | 52.4 | 73.6 | 63.6 | 26.2 | 46.2 |
| 43 | India | 12.8% | 52.1 | 92.9 | 35.9 | 25.5 | 54.1 |
| 44 | Turkey | 10.6% | 51.7 | 72.1 | 19.4 | 36.4 | 78.9 |
| 45 | Singapore | 1.2% | 51.3 | 59.9 | 21.1 | 52.4 | 71.9 |
| 46 | Malaysia | 14.9% | 50.1 | 63.6 | 51.4 | 34.7 | 50.8 |
| 47 | Montenegro | 15.5% | 50.0 | 76.8 | 26.8 | 41.9 | 54.5 |
| 48 | Finland | 16.1% | 49.0 | 56.7 | 78.7 | 23.1 | 37.4 |
| | **World** | 10.6% | 48.9 | 71.7 | 45.0 | 27.1 | 51.8 |
| 49 | Argentina | 1.1% | 48.8 | 68.7 | 41.8 | 30.4 | 54.2 |
| 50 | Georgia | 12.7% | 48.5 | 84.8 | 36.9 | 28.6 | 43.7 |
| 51 | Kenya | 7.2% | 48.4 | 95.7 | 47.4 | 19.9 | 30.5 |
| 52 | Brazil | -0.8% | 47.3 | 78.7 | 33.4 | 21.5 | 55.7 |
| 53 | Estonia | 9.9% | 47.2 | 33.3 | 93.9 | 17.4 | 44.1 |
| 54 | Vietnam | 11.2% | 47.1 | 86.6 | 49.1 | 12.2 | 40.4 |
| 55 | Armenia | 4.6% | 46.2 | 82.6 | 38.6 | 16.9 | 46.9 |
| 56 | United Arab Emirates | 55.0% | 45.0 | 12.6 | 57.9 | 58.9 | 50.7 |
| 57 | Chile | 2.0% | 44.9 | 74.4 | 39.1 | 11.2 | 54.7 |
| 58 | South Korea | 26.7% | 44.7 | 43.3 | 30.0 | 67.0 | 38.4 |
| 59 | United States | 32.7% | 42.8 | 17.8 | 49.0 | 59.2 | 45.3 |
| 60 | Iran | -1.7% | 42.5 | 67.3 | 52.1 | 20.9 | 29.7 |
| 61 | Moldova | 5.8% | 41.0 | 88.3 | 31.3 | 14.6 | 30.0 |
| 62 | Bosnia and Herzegovina | 0.9% | 40.3 | 65.8 | 42.4 | 22.9 | 30.1 |
| 63 | South Africa | 8.2% | 38.5 | 61.6 | 43.5 | 21.1 | 27.9 |
| 64 | Serbia | 12.5% | 38.2 | 66.4 | 30.5 | 18.1 | 38.0 |
| 65 | Saudi Arabia | 15.3% | 37.8 | 37.4 | 34.2 | 38.5 | 41.4 |
| 66 | China | 14.5% | 36.2 | 64.0 | 30.2 | 13.0 | 37.7 |
| 67 | New Zealand | 16.4% | 36.0 | 28.4 | 37.7 | 30.3 | 47.5 |
| 68 | Ukraine | 9.0% | 33.8 | 69.6 | 33.2 | 12.3 | 19.8 |
| 69 | Russia | 0.7% | 33.8 | 38.4 | 41.6 | 30.9 | 24.2 |
| 70 | Australia | 25.9% | 32.5 | 6.1 | 52.8 | 24.5 | 46.5 |
| 71 | Iceland | 0.3% | 29.1 | 28.3 | 39.6 | 33.0 | 15.7 |
| 72 | Canada | 10.6% | 28.2 | 18.8 | 35.5 | 30.0 | 28.5 |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Note: 'Progress 2010-19' refers to the percentage growth of governance transition scores between 2010 and 2019.
Source: European Commission, Transitions Performance Index 2020.

The case of Nigeria is noteworthy. While it ranks last in the TPI, it achieves leader performance in the reduction of GHG emissions and strong performance in biodiversity. Indonesia, among the ten countries at the end of the TPI ranking, is also among the leaders in GHG emissions reduction and a strong performer in energy productivity. Its overall environmental score is, however, undermined by a low performance in biodiversity protection and in resource productivity.

***Environmental transition, moderate and weak performers***

Two main opposite patterns emerge from the data on the 34 countries that compose the moderate and weak performance groups.

The first pattern is the large number of countries, which despite lagging in their environmental score, demonstrate leadership or strong performance in one or more sub-pillars, such as Turkey in GHG emissions and energy productivity; and 23 countries (Mexico, Cyprus, Israel, Thailand, India, Singapore, Montenegro, Finland, Argentina, Georgia, Kenya, Brazil, Estonia, Vietnam, Armenia, Chile, South Korea, Iran, Moldova, Bosnia and Herzegovina, Serbia and Ukraine) in one dimension. This highlights the relative autonomy of the environmental efforts that can be pursued, whatever the socio-economic profile and localisation of a country.

The worrying counterpart is the case of countries lacking strong points, with moderate or weak performances in three or four dimensions (Malaysia, the US, South Africa, Saudi Arabia, China, New Zealand, Russia, Australia, Iceland and Canada).

## VI.2. ENVIRONMENTAL TRANSITION, PROGRESS OVER 2010-2019

Over the last decade, **Table 9** exhibits progress in environmental transition for all countries but three:

- The average progress is significantly high, at 13.3%. The highest rate is that of the United Arab Emirates (+55.0%); Croatia, the United States, and Luxembourg have rates above 30%; and Israel, South Korea, Australia, the Netherlands, the United Kingdom, Morocco, Norway, and Italy have rates above 20%.

- The five countries with the lowest progress rate are Russia (+0.7%), Iceland (+0.3%), Brazil (-0.8%), Algeria (-1.1%) and Iran (+1.7%).

- Compared with starting points, patterns across sub-pillars diverge and require further analysis of country profiles. In particular, best performers in terms of progress belong to all levels of environmental transition performance.

- Countries with leader and strong positions in environmental transition have an average progress rate of 16.9%. The highest progress rates are those of Croatia (+35.7%), the Netherlands (+24.2%), the United Kingdom (+23.5%), Italy (+20.6%), Spain (19.1%) and Japan (+19.0%).

- Among weak performers (environmental scores below 45/100), the average progress rate is 11.2%. Although starting from low levels in 2010, the performances of the United States (+32.7%), South Korea (+26.7%) and Australia (+25.9%) are commendable. In contrast, the low rates of Bosnia Herzegovina, Chile, Iceland, Iran, and Russia (progress between -2 and 2%) are worrisome.



# VII. GOVERNANCE TRANSITION

# VII. GOVERNANCE TRANSITION

## VII.1. OVERVIEW

More than the half of the 72 countries covered achieve leader or strong performance in governance transition, with New Zealand being the top leader and 7 EU countries ranking in the top 10. However, most countries need to make significant progress in transparency to improve their performance in this pillar.

The sound public finances sub-pillar consists of a single indicator, debt-to-GDP ratios. Forty-eight countries achieve leader performance in this indicator, with only 10 having moderate or weak performance. This is the result of the choice made to have relatively mild goalposts to anticipate low interest rates and the impact of the COVID-19 crisis[28].

***Governance transition, leaders and strong performers***

Nineteen countries are leaders in governance transition (New Zealand, Norway, Luxembourg, Denmark, Sweden, Switzerland, the Netherlands, Australia, Finland, Iceland, Germany, Estonia, Ireland, Austria, Czechia, Slovenia, the United Kingdom, South Korea and France); and another 19 are strong performers (Canada, Singapore, Malta, Belgium, Spain, Portugal, Poland, Japan, Israel, Slovakia, Chile, Croatia, Cyprus, Lithuania, Romania, United Arab Emirates, Bulgaria, Italy and Latvia), the EU belonging to this latter group.

Most of these 38 countries have leader or strong performances in fundamental rights and security (the exceptions have good or moderate performances and are the United Arab Emirates and Bulgaria in fundamental rights and Chile, Lithuania and Latvia in security,). In contrast, except for New Zealand, no country achieves leadership in transparency.

Of the 19 leaders in governance, most achieve lead or strong performance in sound public finances, with the exception of the United Kingdom and France (having good and moderate performances respectively).

***Governance transition, good performers***

Thirteen countries are good performers in governance transition (Indonesia, the United States, Georgia, North Macedonia, Hungary, Malaysia, Greece, Montenegro, Bosnia and Herzegovina, Serbia, Saudi Arabia, Armenia and India).

For this group, the sub-pillars with significant numbers of weak performers are fundamental rights (North Macedonia, Bosnia and Herzegovina, Saudi Arabia, and Armenia) and transparency (Indonesia, Bosnia and Herzegovina, Serbia, Armenia, and India). In addition, several countries perform moderately in these two sub-pillars. The United States is an exception, with a leader position in fundamental rights.

The situation is more satisfactory as regards security and sound public finances. All countries achieve lead, strong or good performance, with the exception of the United States in security (moderate performance), and of the United States (moderate), and Greece (weak) in sound public finances.

***Governance transition, moderate and weak performers***

Twenty-one countries are in moderate or weak governance transition, despite their scores being driven up by a strong or lead performance in sound public finance27 (all countries have lead, strong or good performances in this sub-pillar). Some countries also achieve lead or strong performance in security (China, Morocco, Algeria, Vietnam and Iran).

In contrast, performances in fundamental rights and transparency are worrisome, with two exceptions being the good performances of Argentina and South Africa in fundamental rights.

28 See discussion on this indicator in Appendix I - Conceptual framework.

## TABLE 10: Governance transition ranking

| COUNTRY | | PROGRESS | 2019 SCORES | | | | |
|---|---|---|---|---|---|---|---|
| RANK | NAME | 2010-2019 | GOVERNANCE TRANSITION | Fundamental rights | Security | Transparency | Sound public finances |
| 1 | New Zealand | 0.6% | 86.6 | 95.9 | 84.6 | 75.7 | 97.0 |
| 2 | Norway | -2.8% | 85.9 | 96.7 | 89.4 | 70.1 | 90.3 |
| 3 | Luxembourg | 11.2% | 85.2 | 95.3 | 91.9 | 63.5 | 100.0 |
| 4 | Denmark | -2.5% | 83.8 | 95.7 | 80.7 | 71.5 | 94.1 |
| 5 | Sweden | -2.4% | 83.7 | 95.9 | 79.7 | 72.9 | 91.1 |
| 6 | Switzerland | 2.1% | 83.4 | 96.0 | 87.2 | 64.2 | 91.2 |
| 7 | Netherlands | 1.2% | 82.1 | 95.5 | 87.2 | 63.6 | 82.3 |
| 8 | Australia | -2.2% | 81.9 | 94.0 | 82.3 | 67.0 | 89.2 |
| 9 | Finland | -1.6% | 81.2 | 96.3 | 73.2 | 75.0 | 78.1 |
| 10 | Iceland | -1.4% | 81.1 | 93.9 | 82.4 | 62.4 | 94.5 |
| 11 | Germany | 4.5% | 79.7 | 93.6 | 81.5 | 65.1 | 76.2 |
| 12 | Estonia | 9.4% | 79.2 | 89.0 | 68.5 | 73.1 | 100.0 |
| 13 | Ireland | 2.2% | 78.4 | 91.7 | 82.6 | 61.9 | 75.1 |
| 14 | Austria | 1.6% | 78.3 | 94.3 | 81.3 | 62.6 | 68.4 |
| 15 | Czechia | 3.5% | 78.3 | 83.8 | 86.6 | 58.7 | 95.1 |
| 16 | Slovenia | -4.2% | 77.8 | 84.7 | 89.1 | 61.8 | 70.7 |
| 17 | United Kingdom | 0.1% | 77.7 | 93.3 | 78.1 | 67.2 | 60.7 |
| 18 | South Korea | 3.2% | 76.8 | 83.9 | 86.9 | 55.2 | 90.2 |
| 19 | France | -0.7% | 75.1 | 90.3 | 78.2 | 64.3 | 52.6 |
| 20 | Canada | -2.0% | 74.9 | 94.9 | 71.9 | 62.9 | 59.7 |
| 21 | Singapore | 1.7% | 74.7 | 72.2 | 96.0 | 66.5 | 42.5 |
| | **European Union** | 1.1% | 74.5 | 86.1 | 81.1 | 59.7 | 64.7 |
| 22 | Malta | -4.1% | 74.0 | 86.2 | 73.6 | 58.0 | 86.6 |
| 23 | Belgium | -1.2% | 73.7 | 91.7 | 72.6 | 64.3 | 51.6 |
| 24 | Spain | -4.4% | 73.7 | 84.5 | 86.6 | 56.7 | 53.2 |
| 25 | Portugal | -0.4% | 73.6 | 87.9 | 83.9 | 61.0 | 37.3 |
| 26 | Poland | -2.4% | 72.8 | 71.6 | 84.8 | 58.0 | 84.6 |
| 27 | Japan | 2.6% | 72.6 | 89.2 | 93.5 | 59.1 | 0.0 |
| 28 | Israel | 5.5% | 72.3 | 79.1 | 74.7 | 61.8 | 76.2 |
| 29 | Slovakia | 2.6% | 71.5 | 75.6 | 79.0 | 55.8 | 84.3 |
| 30 | Chile | -6.3% | 70.2 | 86.1 | 53.3 | 61.7 | 98.4 |
| 31 | Croatia | 11.4% | 69.7 | 66.0 | 87.4 | 56.3 | 67.9 |
| 32 | Cyprus | -11.4% | 68.8 | 81.2 | 77.4 | 53.5 | 51.2 |
| 33 | Lithuania | 8.3% | 68.6 | 82.6 | 52.4 | 62.3 | 94.1 |
| 34 | Romania | 2.6% | 67.1 | 65.2 | 77.2 | 50.2 | 93.5 |
| 35 | United Arab Emirates | 6.7% | 67.0 | 46.2 | 89.4 | 54.4 | 100.0 |
| 36 | Bulgaria | 4.1% | 66.5 | 55.8 | 76.9 | 55.7 | 100.0 |
| 37 | Italy | 0.8% | 66.2 | 72.5 | 87.5 | 50.9 | 29.2 |
| 38 | Latvia | -0.2% | 65.8 | 81.1 | 53.5 | 53.9 | 92.6 |
| 39 | Indonesia | 9.5% | 64.2 | 47.4 | 90.0 | 44.4 | 96.6 |
| 40 | United States | -3.2% | 64.1 | 88.9 | 50.6 | 58.2 | 47.6 |
| 41 | Georgia | 21.2% | 62.7 | 61.3 | 67.6 | 52.0 | 83.9 |
| 42 | North Macedonia | 4.5% | 62.3 | 44.2 | 78.2 | 55.5 | 89.8 |
| 43 | Hungary | -13.7% | 61.4 | 66.8 | 65.4 | 49.0 | 70.8 |
| 44 | Malaysia | 1.9% | 60.6 | 60.0 | 68.4 | 47.1 | 79.8 |
| 45 | Greece | 0.7% | 60.2 | 68.3 | 81.6 | 50.6 | 0.0 |
| 46 | Montenegro | -1.1% | 59.0 | 53.6 | 67.5 | 54.4 | 63.8 |
| 47 | Bosnia and Herzegovina | 1.0% | 57.3 | 40.6 | 78.5 | 40.2 | 94.6 |
| 48 | Serbia | -3.9% | 57.0 | 47.1 | 77.8 | 37.6 | 82.1 |
| 49 | Saudi Arabia | -0.7% | 56.7 | 30.3 | 77.3 | 48.0 | 100.0 |
| 50 | Armenia | 11.1% | 56.6 | 44.8 | 72.6 | 43.5 | 83.8 |
| 51 | India | 2.2% | 55.7 | 57.9 | 61.1 | 42.8 | 71.6 |
| 52 | Tunisia | 4.1% | 53.4 | 55.0 | 61.2 | 39.0 | 68.1 |
| 53 | Albania | 6.5% | 52.9 | 46.5 | 67.0 | 38.4 | 73.1 |
| 54 | China | 1.2% | 52.7 | 24.7 | 88.3 | 36.1 | 80.3 |
| 55 | Morocco | -0.8% | 52.7 | 34.9 | 75.6 | 40.5 | 74.0 |
| 56 | Moldova | 6.6% | 50.6 | 39.9 | 54.9 | 41.5 | 97.1 |
| 57 | Turkey | -8.6% | 49.5 | 28.9 | 64.6 | 39.3 | 96.7 |
| 58 | Thailand | 8.8% | 49.4 | 33.3 | 64.7 | 37.1 | 88.8 |
| | **World** | -0.8% | 48.8 | 48.1 | 48.9 | 43.1 | 67.5 |
| 59 | Argentina | 5.3% | 48.2 | 56.0 | 48.9 | 37.0 | 55.9 |
| 60 | Algeria | -9.9% | 48.1 | 19.1 | 76.2 | 36.3 | 86.4 |
| 61 | Vietnam | 5.1% | 47.8 | 28.6 | 74.3 | 29.4 | 81.1 |
| 62 | Philippines | 11.3% | 46.7 | 41.6 | 44.3 | 39.5 | 90.8 |
| 63 | Egypt | -5.0% | 46.2 | 22.0 | 64.9 | 46.7 | 61.4 |
| 64 | Ukraine | -2.3% | 43.5 | 36.5 | 45.4 | 36.7 | 79.4 |
| 65 | Kenya | 5.4% | 41.4 | 35.0 | 50.7 | 26.8 | 76.4 |
| 66 | South Africa | -13.5% | 40.3 | 60.2 | 0.0 | 48.2 | 77.5 |
| 67 | Iran | 5.0% | 40.2 | 16.9 | 65.3 | 19.6 | 96.3 |
| 68 | Russia | 2.0% | 37.9 | 17.6 | 38.5 | 36.7 | 100.0 |
| 69 | Brazil | -16.1% | 36.8 | 52.1 | 7.3 | 44.2 | 57.1 |
| 70 | Colombia | 1.3% | 36.7 | 45.9 | 9.4 | 39.4 | 83.2 |
| 71 | Mexico | -13.8% | 33.2 | 37.4 | 5.7 | 40.4 | 81.4 |
| 72 | Nigeria | 12.3% | 26.8 | 26.5 | 1.1 | 29.5 | 96.9 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

Note: 'Progress 2010-19' refers to the percentage growth of governance transition scores between 2010 and 2019.

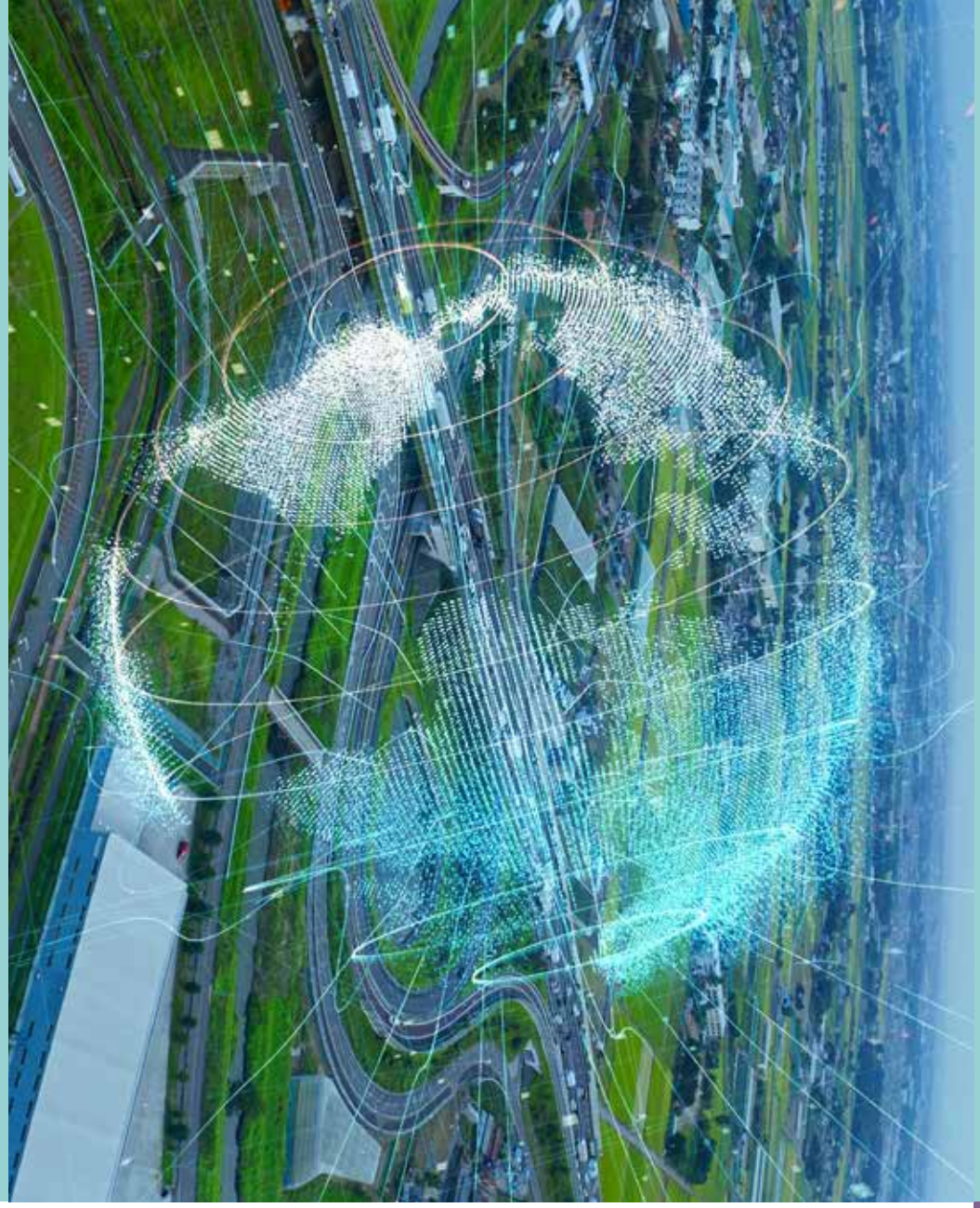
Source: European Commission, Transitions Performance Index 2020.

## VII.2. GOVERNANCE TRANSITION, PROGRESS OVER 2010-2019

The progress in governance transition has been generally limited, with an average rate of 0.9% over the decade, a rate that shows great disparities.

The highest progress rates are those of Georgia (21.2%), Nigeria (12.3%) and Croatia, the Philippines, Armenia and Luxembourg (11% each). High progress rates need to be relativised when applied to low base levels in 2010. For instance, Nigeria, despite its progress, remains the worst performer in governance transition.

The biggest downward trends were registered by Brazil (-16.1%), Mexico (-13.8%), Hungary (-13.7%), South Africa (-13.5%), Cyprus (-11.4%), Algeria (-9.9%) and Turkey (-8.6%) (**Table 10**).



# VIII. PERFORMANCE BY INCOME GROUP AND REGION

# VIII. PERFORMANCE BY INCOME GROUP AND REGION

## VIII.1. PERFORMANCE BY INCOME GROUP[29]

Even if TPI results show that there is no predetermination of TPI performance by GDP per capita, the latter is still a factor with influence[30]. At the geographical level, countries are influenced by the performance of their neighbours and closest partners. For this reason, the performance by groupings per income or regional groups proves informative on the relative performance, in addition to the global rankings.

**Table 11** shows the performance by income groups, following the World Bank classification. High-income countries reflect the overall rankings of the TPI. Among upper middle-income countries, Bulgaria, Albania and North Macedonia top the ranking, participating actively in EU policies. Among Asian economies, Malaysia and Indonesia, two countries with high growth rates, show that TPI progress is not exclusive of economic progress nor a privilege of European countries.

Among lower middle-income countries, Morocco, Tunisia and Algeria top the ranking. These three countries, in the context of the Euro-Mediterranean partnership,[31] have signed Association Agreements with the EU. Although focused on trade, these agreements are part of the partnership framework that aims at fostering political, security, cultural, human as well as economic and financial cooperation, including regulatory convergence.

Similarly to the upper middle-income group, two Asian countries complete the top five: the Philippines and Vietnam.

**TABLE 11: Top 5 TPI by income group**

| TOP 5 | INCOME GROUPS | | | | | |
|---|---|---|---|---|---|---|
| | TPI (HIGH-INCOME) | | UPPER MIDDLE-INCOME | | LOWER MIDDLE-INCOME | |
| Ranks | Country | Score | Country | Score | Country | Score |
| 1 | Switzerland | 81.4 | Bulgaria | 56.7 | Morocco | 51.5 |
| 2 | Denmark | 77.4 | Albania | 56.2 | Tunisia | 51.1 |
| 3 | Netherlands | 76.5 | North Macedonia | 54.7 | Algeria | 50.2 |
| 4 | United Kingdom | 75.0 | Malaysia | 54.1 | Philippines | 48.3 |
| 5 | Ireland | 74.0 | Indonesia | 53.5 | Vietnam | 47.6 |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[
Source: European Commission, Transitions Performance Index 2020.

29 The World Bank defines income groups based on GNI per capita as calculated using the World Bank Atlas method: lower middle-income economies are defined as those with a GNI per capita between $1,036 and $4,045 in 2019, upper middle-income economies are those with a GNI per capita between $4,046 and $12,535; high-income economies are those with a GNI per capita of $12,536 or more. The TPI does not include low-income economies, defined as those with a GNI per capita of $1,035 or less.

30 See discussion in Section IX.1.

31 Together with Egypt, Jordan and Lebanon

## VIII.2. PERFORMANCE BY REGION

### *The Americas*

The countries of North, Central and South America lag behind in terms of TPI scores compared to other regions of the world. Leading in the Americas for the global TPI ranking, the United States and Canada perform both at the lower end of the countries in good transition (**Table 12**). Among Latin American countries, Chile comes first, followed by Colombia and Argentina, all in moderate transition. In addition, progress since 2010 has been above world average for Colombia and the United States. Mexico, ranked 64, is in moderate transition, with progress below average (5.0 %), while Brazil, ranked 67, shows weak performance, with negative progress over the decade (-2.3 %).

### *South-East Asia and the Pacific*

In contrast, the South-East Asia and Pacific region shows that the top five countries together form a pack of solid performers (see **Table 13** below). Japan exhibits a strong transition, followed by South Korea, Singapore, New Zealand and Australia in good transition. The environmental transition is the main symptom of weakness for Australia, New Zealand and South Korea. In addition, while South Korea and Japan have increased significantly their TPI score by more than 8 % since 2010, Australia, New Zealand and Singapore's progress was more limited.

The remaining countries in the region, Malaysia, Indonesia, Thailand, China, the Philippines, Vietnam and India are all in moderate transition, with strength in social transition in China and Vietnam and weakness in economic transition in Indonesia, the Philippines, Vietnam and India and in environmental transition in China.

**TABLE 12: The Americas TPI ranking and pillar scores**

| RANK | | COUNTRY | 2019 TRANSITIONS SCORES | | | | | PROGRESS | ESG GAP |
|---|---|---|---|---|---|---|---|---|---|
| REGION | TPI | NAME | TPI | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE | 2010-2019 | (% OF TPI) |
| 1 | 38 | United States | 56.7 | 65.7 | 62.7 | 42.8 | 64.1 | 8.2% | -19.8% |
| 2 | 40 | Canada | 55.8 | 60.0 | 76.2 | 28.2 | 74.9 | 2.9% | -9.3% |
| 3 | 45 | Chile | 53.3 | 42.0 | 58.2 | 44.9 | 70.2 | 3.8% | 26.5% |
| 4 | 55 | Colombia | 48.2 | 29.9 | 50.3 | 65.8 | 36.7 | 9.3% | 47.6% |
| 5 | 61 | Argentina | 46.3 | 36.3 | 49.3 | 48.8 | 48.2 | 3.6% | 26.8% |
| 6 | 64 | Mexico | 45.3 | 36.5 | 52.4 | 54.9 | 33.2 | 5.0% | 24.3% |
| 7 | 67 | Brazil | 43.2 | 39.4 | 47.9 | 47.3 | 36.8 | -2.3% | 11.1% |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

Notes: (1) 'ESG gap (% of TPI)' refers to the difference between the sum of the social, environmental, and governance (ESG) pillar weighted scores and the economic pillar score, as a percentage of the TPI score, in 2019. (2) 'Progress 2010-19' refers to the percentage growth of TPI scores between 2010 and 2019.

Source: European Commission, Transitions Performance Index 2020.

**TABLE 13: South-East Asia and Pacific TPI ranking and scores**

| RANK | | COUNTRY | 2019 TRANSITIONS SCORES | | | | | PROGRESS | ESG GAP |
|---|---|---|---|---|---|---|---|---|---|
| REGION | TPI | NAME | TPI | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE | 2010-2019 | (% OF TPI) |
| 1 | 15 | Japan | 70.0 | 65.3 | 79.3 | 65.4 | 72.6 | 8.2% | 8.2% |
| 2 | 22 | South Korea | 64.5 | 75.1 | 72.9 | 44.7 | 76.8 | 12.0% | -22.2% |
| 3 | 32 | Singapore | 61.6 | 69.3 | 55.3 | 51.3 | 74.7 | 3.1% | -17.4% |
| 4 | 33 | New Zealand | 61.2 | 55.8 | 78.9 | 36.0 | 86.6 | 4.7% | 8.4% |
| 5 | 36 | Australia | 58.3 | 54.6 | 77.5 | 32.5 | 81.9 | 5.2% | 5.3% |
| 6 | 43 | Malaysia | 54.1 | 46.8 | 60.2 | 50.1 | 60.6 | 9.9% | 16.3% |
| 7 | 44 | Indonesia | 53.5 | 28.0 | 57.5 | 58.3 | 64.2 | 12.4% | 59.2% |
| 8 | 46 | Thailand | 52.7 | 45.1 | 65.0 | 52.4 | 49.4 | 8.1% | 18.6% |
| 9 | 51 | China | 49.4 | 52.9 | 64.7 | 36.2 | 52.7 | 9.9% | -9.5% |
| 10 | 54 | Philippines | 48.3 | 24.4 | 49.8 | 62.2 | 46.7 | 8.8% | 62.8% |
| 11 | 56 | Vietnam | 47.6 | 28.6 | 67.2 | 47.1 | 47.8 | 8.0% | 50.4% |
| 12 | 63 | India | 45.9 | 28.9 | 39.7 | 52.1 | 55.7 | 5.3% | 45.5% |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

Notes: (1) 'ESG gap (% of TPI)' refers to the difference between the sum of the social, environmental, and governance (ESG) pillar weighted scores and the economic pillar score, as a percentage of the TPI score, in 2019. (2) 'Progress 2010-19' refers to the percentage growth of TPI scores between 2010 and 2019.

Source: European Commission, Transitions Performance Index 2020.

*Middle East and Africa*

In the Middle East and Africa, Israel tops the league, followed by the United Arab Emirates, both countries belonging to the group of good performers (**Table 14**). In terms of progress, the two leaders are among the countries that have registered the highest relative progress since 2010. Maghreb countries perform also relatively well, as highlighted by their performance in the group of lower middle-income countries. Their evolution, however, is more dispersed: Morocco registered good progress, while Algeria has suffered a decline in its TPI score over the last decade. Apart from Israel, top performers in the region suffer from the slow pace of their economic adaptation to the transition process, although the United Arab Emirates has registered an acceleration of its progress since 2010.

Saudi Arabia and Egypt are among moderate performers, while Kenya, Iran, South Africa and Nigeria are among weak performers, with a commendable good performance in environmental performance in the case of Nigeria.

**TABLE 14: Middle East and Africa TPI rankings and scores**

| RANK | | COUNTRY | 2019 TRANSITIONS SCORES | | | | | PROGRESS | ESG GAP |
|---|---|---|---|---|---|---|---|---|---|
| REGION | TPI | NAME | TPI | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE | 2010-2019 | (% OF TPI) |
| 1 | 29 | Israel | 62.7 | 59.4 | 71.9 | 52.4 | 72.3 | 12.2% | 6.6% |
| 2 | 41 | United Arab Emirates | 55.3 | 42.6 | 71.3 | 45.0 | 67.0 | 16.6% | 28.7% |
| 3 | 47 | Morocco | 51.5 | 32.8 | 47.5 | 63.6 | 52.7 | 9.7% | 45.4% |
| 4 | 48 | Tunisia | 51.1 | 37.9 | 54.0 | 55.5 | 53.4 | 7.6% | 32.3% |
| 5 | 49 | Algeria | 50.2 | 37.1 | 57.2 | 55.1 | 48.1 | -2.8% | 32.5% |
| 6 | 60 | Saudi Arabia | 46.5 | 53.9 | 41.3 | 37.8 | 56.7 | 7.8% | -19.9% |
| 7 | 62 | Egypt | 46.2 | 28.1 | 47.4 | 55.8 | 46.2 | 1.0% | 49.0% |
| 8 | 69 | Kenya | 41.9 | 19.5 | 53.8 | 48.4 | 41.4 | 2.1% | 67.0% |
| 9 | 70 | Iran | 40.4 | 32.3 | 44.8 | 42.5 | 40.2 | 4.1% | 24.8% |
| 10 | 71 | South Africa | 36.3 | 37.7 | 26.0 | 38.5 | 40.3 | 2.2% | -4.8% |
| 11 | 72 | Nigeria | 36.1 | 13.4 | 33.3 | 57.2 | 26.8 | 3.3% | 78.7% |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

Notes: (1) 'ESG gap (% of TPI)' refers to the difference between the sum of the social, environmental, and governance (ESG) pillar weighted scores and the economic pillar score, as a percentage of the TPI score, in 2019. (2) 'Progress 2010-19' refers to the percentage growth of TPI scores between 2010 and 2019.

Source: European Commission, Transitions Performance Index 2020.



### *Non-EU Europe and Central Asia*

In Europe and Central Asia, which includes 43 countries, the European part dominates the scores. The role of the European Union seems to have been decisive in that orientation (see **Chapter II** and **Table 2**).

**Table 15** shows scores for non-EU countries, all EU associated countries, except for the United Kingdom (formerly EU, ranked 4) and Russia, at the bottom in the region, ranked 68. After Norway in position 7, there is a jump of 23-43 positions to Iceland, Albania, North Macedonia and Georgia, ranked between 30 and 50. The remaining countries are all ranked below the world average, with Ukraine showing a strong performance in social transition and Albania in environmental transition.

**TABLE 15: Non-EU Europe and Central Asia TPI ranking and scores**

| RANK | | COUNTRY | 2019 TRANSITIONS SCORES | | | | | PROGRESS | ESG GAP |
|---|---|---|---|---|---|---|---|---|---|
| REGION | TPI | NAME | TPI | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE | 2010-2019 | (% OF TPI) |
| 1 | 1 | Switzerland | 81.4 | 80.0 | 80.5 | 81.4 | 83.4 | 7.9% | 2.2% |
| 2 | 4 | United Kingdom | 75.0 | 54.9 | 77.5 | 83.1 | 77.7 | 7.9% | 33.4% |
| 3 | 7 | Norway | 72.8 | 66.7 | 86.4 | 59.3 | 85.9 | 6.1% | 10.5% |
| 4 | 30 | Iceland | 61.8 | 66.4 | 90.1 | 29.1 | 81.1 | 1.6% | -9.4% |
| 5 | 39 | Albania | 56.2 | 24.8 | 64.4 | 71.7 | 52.9 | 6.2% | 69.8% |
| 6 | 42 | North Macedonia | 54.7 | 34.1 | 60.0 | 57.9 | 62.3 | 12.6% | 47.1% |
| 7 | 50 | Georgia | 49.9 | 27.7 | 58.6 | 48.5 | 62.7 | 14.7% | 55.6% |
| 8 | 52 | Turkey | 48.7 | 41.1 | 49.9 | 51.7 | 49.5 | 6.1% | 19.4% |
| 9 | 53 | Montenegro | 48.4 | 21.2 | 59.6 | 50.0 | 59.0 | 9.5% | 70.3% |
| 10 | 57 | Armenia | 47.5 | 25.8 | 59.9 | 46.2 | 56.6 | 2.9% | 57.2% |
| 11 | 58 | Serbia | 47.4 | 37.6 | 61.1 | 38.2 | 57.0 | 5.5% | 25.8% |
| 12 | 59 | Moldova | 47.3 | 40.7 | 60.9 | 41.0 | 50.6 | 7.6% | 17.6% |
| 13 | 65 | Ukraine | 44.3 | 41.8 | 66.3 | 33.8 | 43.5 | -1.4% | 7.1% |
| 14 | 66 | Bosnia and Herzegovina | 43.3 | 22.5 | 51.9 | 40.3 | 57.3 | 1.5% | 59.9% |
| 15 | 68 | Russia | 42.9 | 45.9 | 62.0 | 33.8 | 37.9 | 7.4% | -8.9% |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

Notes: (1) 'ESG gap (% of TPI)' refers to the difference between the sum of the social, environmental, and governance (ESG) pillar weighted scores and the economic pillar score, as a percentage of the TPI score, in 2019. (2) 'Progress 2010-19' refers to the percentage growth of TPI scores between 2010 and 2019.

Source: European Commission, Transitions Performance Index 2020.

# IX. TPI LINKAGES

# IX. TPI LINKAGES WITH GDP, INNOVATION, DIGITALISATION, RESILIENCE AND TRADE

The TPI is a new metric published as a matter of urgency in the present context of the COVID-19 pandemic. Its use in policy analysis still needs to be tested, but a full testing of possible hypotheses goes beyond the scope of this report.

It is a recommended practice, however, to analyse potential linkages of composite indicators with other measures by assessing correlations of composite indicators with relevant measurable phenomena. It is also a recommended practice to develop data-driven narratives or even perform econometric or other purely statistical tests[32]. In this chapter, only well-known linkages found in the theoretical and empirical literature on transition performance are succinctly assessed to identify and open avenues for future research; suggested conclusions are only tentative and preliminary.

## IX.1. GDP COMPLEMENTARITY

To a large extent, as described in Appendix I - Conceptual framework, the construction of the TPI as a composite indicator aims to possibly address some key limitations of GDP as a measure of prosperity, as a contribution to the 'beyond-GDP' paradigm[33]. In this respect, using the TPI instead of GDP as a core benchmark could add a different perspective when assessing the impact of public policies or firm strategies.

**Figure 11** shows that a large share of the changes in TPI scores are, prima facie, and subject to confirmation by multivariable analysis; they are not explained by GDP variation[34]. This seems to validate the possibility of a progressive decoupling between the transition process and GDP growth. In other words, the TPI may be a step towards measuring a new prosperity model, where improving the quality of life on an equitable and sustainable basis can prove in practice to be different from 'consuming more'[35].

In spite of the above, GDP per capita is known to have a high correlation with indicators of well-being. Nevertheless, a simple correlation analysis indicates that while being moderately correlated with GDP per capita (based on purchasing power parity – PPP$), the TPI is an autonomous indicator, bringing added value to GDP with a significant variance in performance.

For instance, EU countries,[36] Switzerland, the United Kingdom, Japan, Albania, Indonesia, South Korea, Iceland, Tunisia, Morocco, New Zealand and Mexico perform better than their peers in income levels.

32 See Step 9, Link to other measures, 10 Step Guide to constructing composite indicators of the Competence Centre on Composite Indicators and Scoreboards of the Joint Research Centre of the European Union, https://composite-indicators.jrc.ec.europa.eu/?q=10-step-guide and https://composite-indicators.jrc.ec.europa.eu/?q=10-step-guide/step-9-link-other-measures

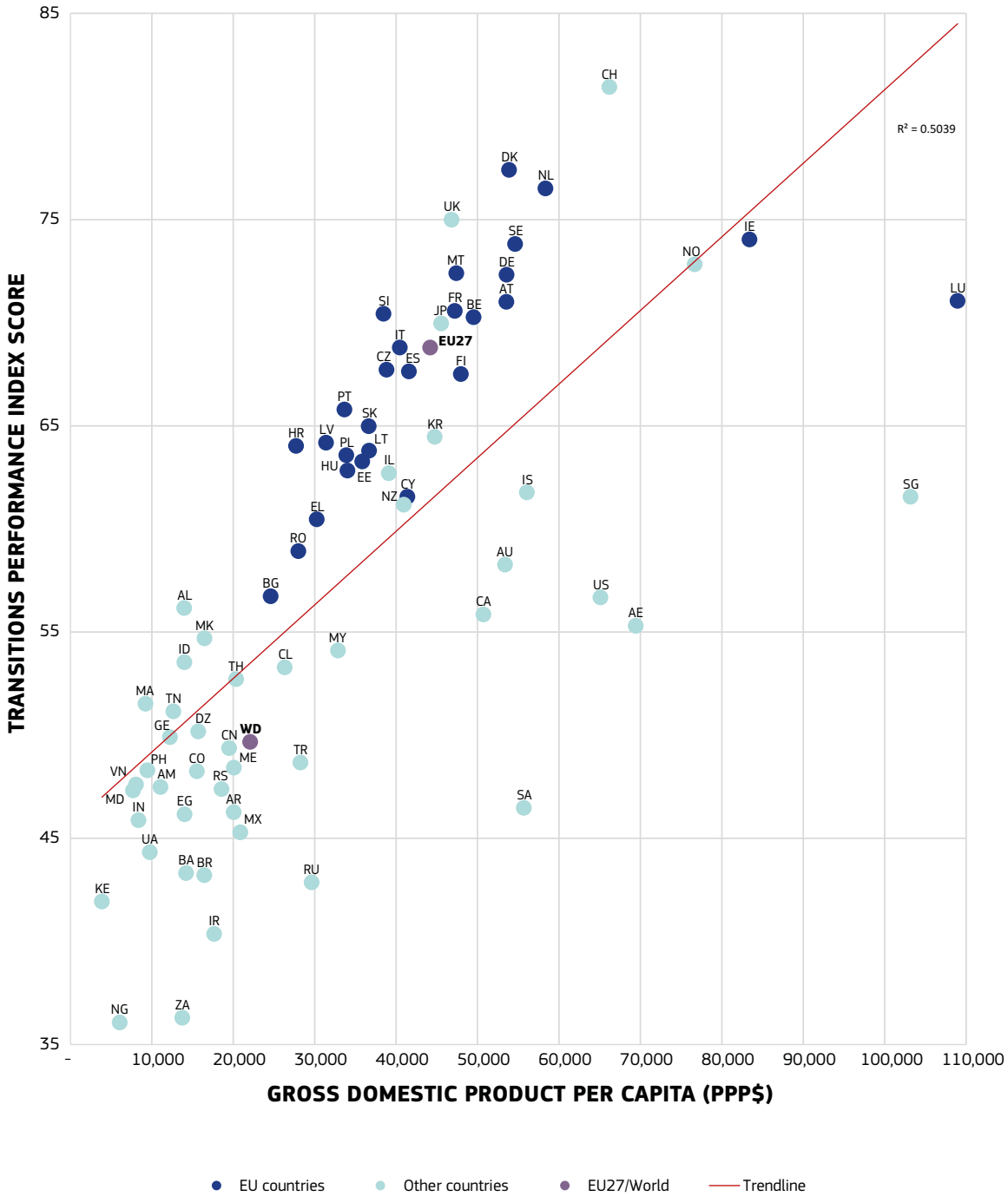
33 In particular, limitations such as the non-valorisation of the impact on stocks (environment, debt, etc.) or non-monetary elements (equality, security and governance, free and non-remunerated time); the absence of measures of resilience; the absence of direct measures of impact on well-being (see Appendix I - Conceptual framework).

34 Noting that per capita GDP is also one of the indicators included in the TPI (sub-pillar 1.2)

35 In the TPI, quality of life is measured by a selection of hard data. Subjective rankings based on broader definition(s) also exist that are not included in the TPI.

36 The two countries with the highest income levels, Luxembourg and Ireland, achieve scores of 100 in TPI indicator 1.2 Wealth - GDP per capita (PPP$), due to the upper goalpost set at $75,000. Without this goalpost, their TPI scores would have been higher. These two countries have TPI performances above peers in income, even if they are not above the trendline in the scatterplot due to their outlier status.

**FIGURE 11: TPI and GDP per capita (PPP$)**




*Source: European Commission, Transitions Performance Index 2020.*

The capacity to outperform GDP is indeed not automatically linked to the wealth of countries. Some rich countries succeed in their transitions (such as the United Kingdom, Denmark, Switzerland, Malta, Italy, the Netherlands, Japan, Sweden, France, the EU, Spain, Germany, Belgium, Austria and Finland[37]) but countries with more moderate revenues do so as well (such as Slovenia, Croatia, Portugal, Czechia, Latvia, Albania, Slovakia, Poland, Hungary, Lithuania, Estonia, Greece, North Macedonia, Indonesia and Morocco[38]).

Conversely, some countries do not sufficiently use their resources to manage the transitions. This is the case for instance of Saudi Arabia, Singapore, South Africa, Russia, Nigeria, the United Arab Emirates, Iran, the United States, Luxembourg, Brazil, Mexico, Bosnia and Herzegovina, Canada, Turkey, Argentina, Australia, Kenya, Serbia, Ukraine and Egypt, all with scores 10% or more below the trendline. Singapore, Zambia, South Africa, Russia, the Emirates, Luxembourg, the USA, Iran and Nigeria, among others.

It is striking that the United States, despite its high GPD per capita, does not belong to the top five in any pillar ranking. Conversely, countries with low GDP per capita, such as Morocco, the Philippines, Albania, Colombia, Croatia and Romania, succeed in being among the top third either in the TPI or in some of its pillars, showing that there is room for efficiency in transition policies.

37 Countries with GDP above $40,000 PPP$ with scores 4% or more above the trendline.
38 Countries with GDP above $40,000 PPP$ with scores 4% or more above the trendline.

## IX.2. RESEARCH AND INNOVATION AND TPI

International composite indicators and scoreboards often have the same countries as good performers. This results from their multidimensional nature, but also from construction, since correlation analysis is a crucial element of the robustness analysis of rankings. In addition, some factors can be common[39] to two different multidimensional phenomena without reducing the specific nature of each composite indicator. It is clear that in statistical aggregation, the existence of confounding variables not accounted for may not be precluded a priori.

To sum up, the specific nature of each separate composite indicator is therefore not minored if some countries rank quite high in other multidimensional indicators, while the variation between two composite indicators remains substantial for other countries. This is the case for TPI in relation to the summary innovation index (SII).

Innovation increases the efficiency and adaptability of economic and social systems and should have an impact on transition performance, and both are multidimensional phenomena measured by composite indicators. **Figure 12** plots the TPI with the summary innovation index[40] (SII) for countries where data is available for both series.

As expected, it shows that there are some similarities between the two rankings. However, compared to the SII, the TPI has a significant specific feature, since numerous countries in the first and second tiers of the TPI do not achieve similar results in the SII (Malta, Slovenia, Latvia, Slovakia, Italy, Czechia, Spain and Ireland in the first tier, and Romania, Croatia, Poland and Hungary in the second tier).

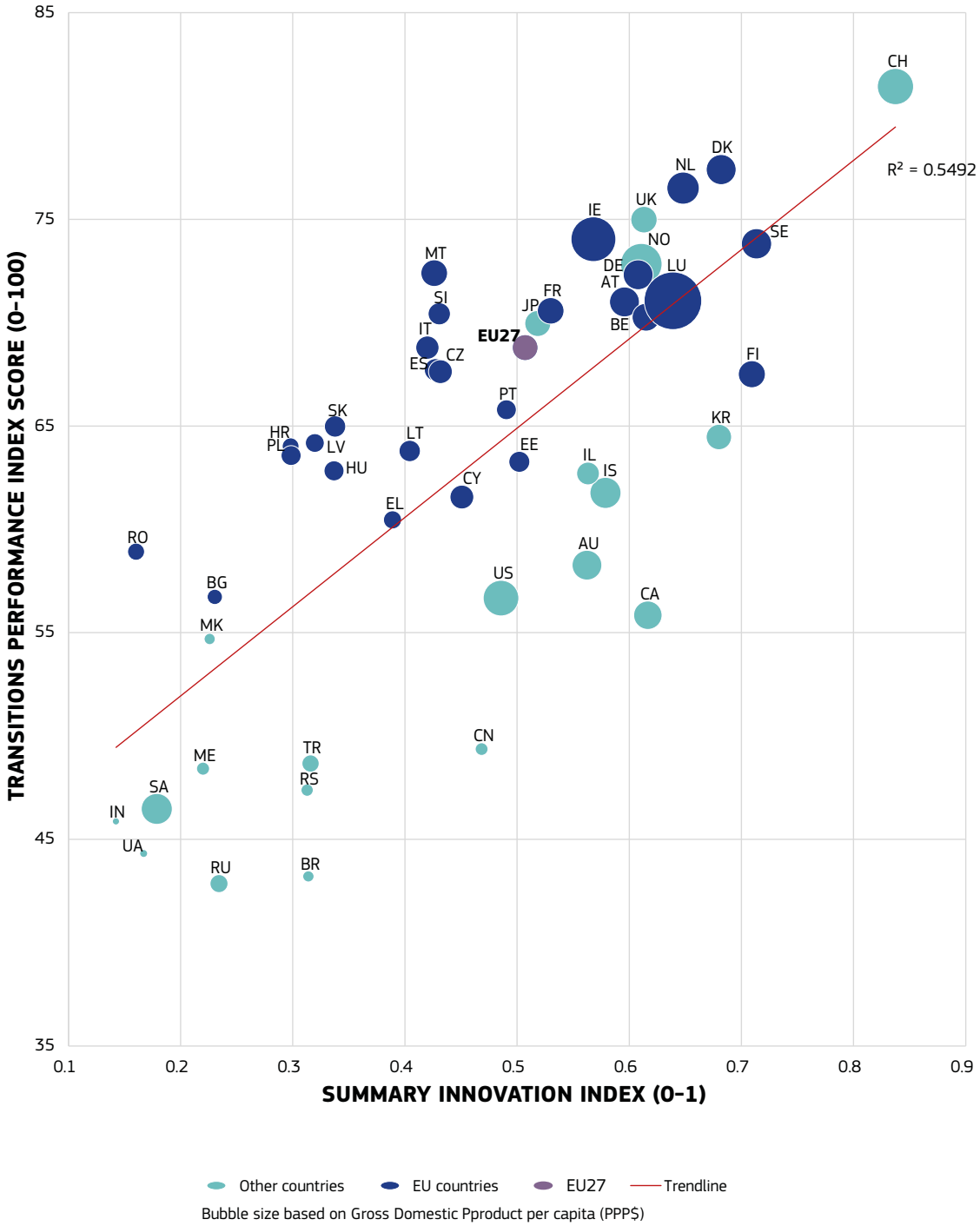
Similarly, wealthy countries that often score well in global indexes are not prominent in the TPI ranking, as shown by the positions of Saudi Arabia, the United States, Canada and South Korea, to name a few. In general, countries performing below the trend line do not target the use of their innovation capacity to best address the challenges of the four transitions.

In conclusion, it seems that in line with the theory, innovation contributes to progress in the TPI, but not all countries seem to make the best of their innovation capacity in this respect.

39 For instance, SII correlation with GDP is similar to TPI correlation with GDP, calculated over the same countries. The correlation between Innovation and TPI may therefore be a statistical result of the correlation of both indexes with GDP.

40 https://ec.europa.eu/growth/industry/policy/innovation/scoreboards_en (data from the European Innovation Scoreboard). The Innovation Scoreboard SII covers 37 countries. In addition, it presents international scores for 10 other countries. The present section uses these 47 scores, the international scores being imputed to SII after adjustment. The indicative results of this section are therefore limited to this sample of 47 countries and cannot be assumed to be automatically transposable to the 25 other countries covered by the TPI.

**FIGURE 12: TPI and Summary Innovation Index scores**




*Source: European Commission, Transitions Performance Index 2020.*



## IX.3. TPI AND DIGITALISATION

The digital transformation of society is a transition with the meaning of transformation. It is, however, unclear to what extent it translates automatically into progress towards economic, social, environmental and governance sustainability. For instance, the debate around the implementation of the 5G technology stresses the positive impact of facilitating autonomous transport or distance learning and teleworking. However, at the same time, others point to the risk that an exponential use of data storage poses for privacy and energy consumption.

More generally, in theory, digitalisation, by improving the efficiency of the economy, should increase productivity and reduce the impact on the environment. However, accompanying measures are required to avoid a digital gap and a possible negative impact on employment[41], especially on specific categories of the population. In addition, one needs to address some adverse effects on the environment through research, mandatory regulations, and voluntary standards. For example, running and maintaining large data centres that manage the cloud require an increasing amount of energy.

The Digital Economy and Society Index (DESI)[42] is a composite indicator that summarises relevant indicators on Europe's digital performance and tracks the trends in EU Member States, across five main dimensions: connectivity, human capital, use of internet, integration of digital technology, and digital public services. The R2 of the TPI with the DESI (0.6025) is higher than with GDP (0.5016), suggesting quite strongly that increasing the digitalisation of the economy and society is likely to be a positive structural element to succeed in the four transitions (**Figure 13**)[43].

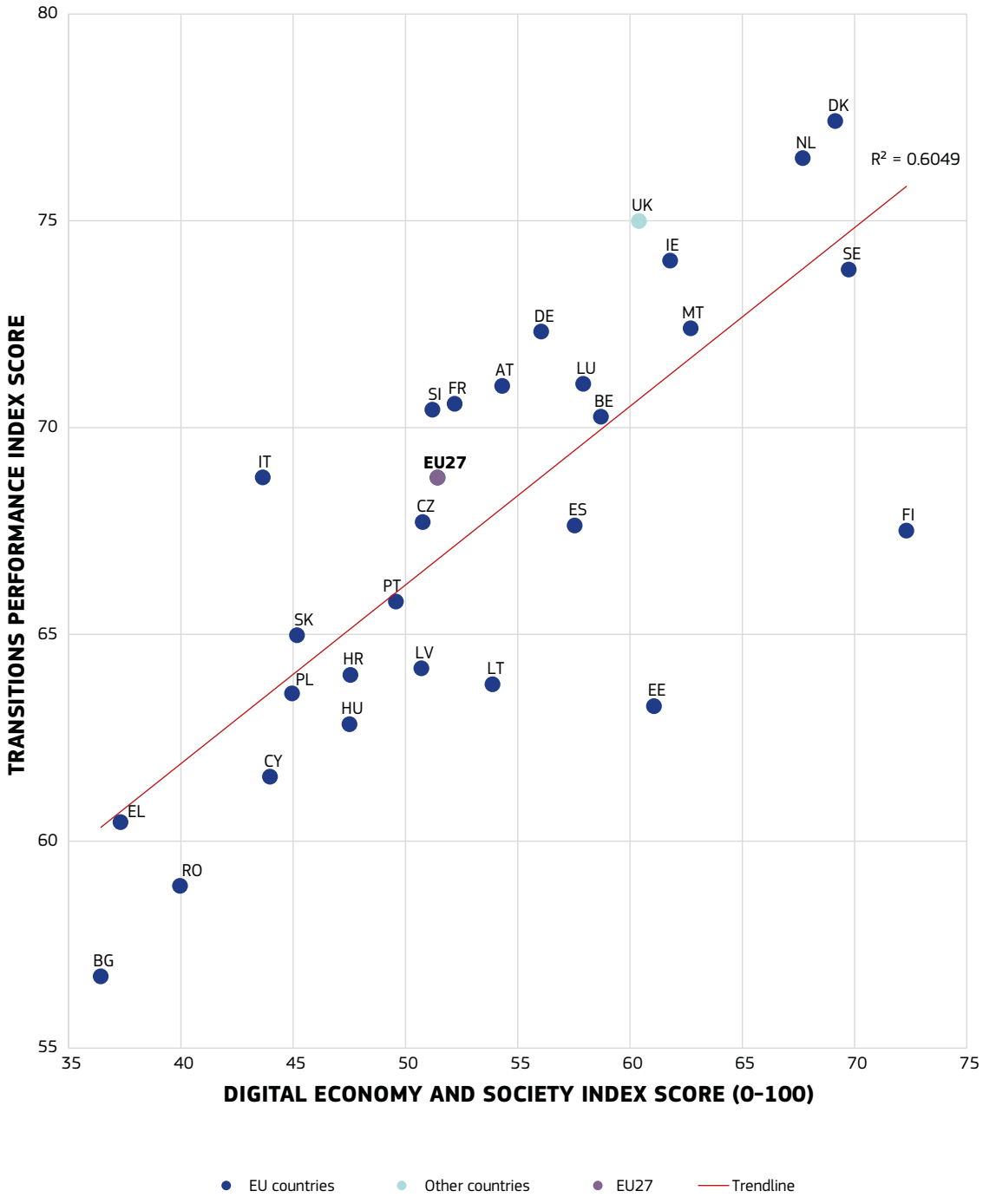
Dispersion is significant, however. The form the digitalisation process takes in different countries may have differentiated impacts on TPI transformations. Some countries are indeed quite below the regression line, such as Finland and Estonia, or to a lesser extent Bulgaria, Lithuania or Romania, for instance.

41 https://ec.europa.eu/info/publications/science-research-and-innovation-performance-eu-2020_e , section related to digitalisation's impact on employment

42 https://digital-agenda-data.eu/datasets/desi/visualizations. The DESI covers only the EU Member States and the United Kingdom. The indicative results of this section are therefore limited to this sample of countries and cannot be automatically assumed to be transposable to the 44 other countries covered by the TPI.

43 This digital dimension is not integrated in the TPI for several reasons: (i) it affects the four transitions; (ii) digitalisation is defined mostly around inputs while the TPI focuses on outputs; and (iii) lack of internationally comparable data.

**FIGURE 13: TPI and Digital Economy and Society Index scores**




*Source: European Commission, Transitions Performance Index 2020.*

## IX.4. TPI AND RESILIENCE

'Resilience is the ability not only to withstand and cope with challenges but also to undergo transitions in a sustainable, fair, and democratic manner. Resilience is necessary in all policy areas to undergo the green and digital transitions, while maintaining the EU's core purpose and integrity in a dynamic and at times turbulent environment. A more resilient Europe will recover faster, emerge stronger from current and future crises, and better implement the United Nations Sustainable Development Goals.'[44]

Resilience is defined in this context as the capacity of individuals, firms and society to resist shocks and their ability to work towards a healthy recovery.

Among the traditional shocks for which a resilience capacity needs to be tested are the major transformations that affect life as a whole. This is the case, for instance, of climate change, war (notably civil war or internal terrorism), a pandemic, diseases or pests causing famine, natural or man-made disasters (nuclear disasters, earthquakes, tsunamis, fires, floods), economic shocks (tripling of oil price, hyperinflation as in 1923 in Germany, financial panic), major changes in life conditions (for instance, systemic resistance to antibiotics would profoundly change the situation of populations).

These shocks can be sudden or progressive. It is the scale rather than the immediacy that defines the need for resilience. For instance, climate change, antibiotic resistance, the accelerated loss of biodiversity (if it leads to local famines) are all progressive shocks which stress the resilience of societies, firms and individuals.

The TPI's ambition is to measure the capacity of a system to adapt over time to a more harmonious society combining economic development (and S&T progress), social, environmental and governance dimensions. As such, it contributes to social cohesion and progress, which are essential factors to the resilience capacity of countries.

To identify the linkages between TPI and resilience, one can distinguish structural indicators that favour resilience from outcome indicators. The first category is straightforward: with less corruption, it is easier to channel aid after a disaster. Aid donors are regularly confronted with this structural element, even in Europe, as illustrated by the difficulty of reconstructing public buildings after earthquakes. The second category can be illustrated by the current COVID-19 shock: resilience of health services leads to higher healthy life expectancy (**Table 16**).

From these comprehensive linkages, the TPI appears as a composite indicator that considers the priority given by the President of the European Commission to resilience as a major objective for Europe.

Nevertheless, having integrated the resilience objective in the TPI's conceptual framework does not make it an index of resilience per se, which would be designed specifically to this end, as called for by the 2020 strategic foresight report. This report states that 'Aggregate indicators at EU level and a synthetic resilience index could also be envisaged. Building on the resilience dashboards, as well as existing knowledge and indicators, future discussions with key stakeholders will aim to develop these indicators at EU level and explore the feasibility of a synthetic resilience index. Its rationale would be similar to the logic underlying the work on the forthcoming Transitions Performance Index."

44 https://ec.europa.eu/info/sites/info/files/strategic_foresight_report_2020_1.pdf , 2020 Strategic foresight report 'Charting the course towards a more resilient Europe'.

**TABLE 16: TPI linkages to resilience**

| TPI LINKAGES TO RESILIENCE | | |
|---|---|---|
| **INDICATOR** | **NATURE** | **COMMENT** |
| Public education | Structural | Contribution to long-term innovation capacity to make systems more resilient. Contribution to critical minds, improving the capacity to react to disasters in organised and rational ways. Contribution to developing ethical approaches and altruist behaviours in addressing common and long-term challenges. |
| R&D intensity | Structural + immediacy | Capacity to invest in anticipating shocks and preparing solutions / capacity to provide rapidly these solutions. |
| Building an industrial base adapted to the future | Structural + immediacy | Capacity to produce locally in case of shocks affecting other parts of the world, capacity to adapt quickly to produce new services needed (e.g. masks, respirators, drugs, new antibiotics, etc.). |
| Heathy life expectancy | Impact | Measures ex post the strength of resilience, including resilience to the psychological effect (the measure used incorporates the mental health dimension). |
| Employment rate | Impact | Measures ex post the strength of resilience by measuring the capacity of economic recovery. |
| Equality | Structural | Capacity of a society to agree with difficult measures or restrictions to face shocks and to behave as 'good citizens' because they feel that the society is fair and the burden equally shared. |
| GHG emissions reduction | Structural | Key mitigating element for climate change, thus increasing the capacity of resilience in proportionate terms (if the consequences of climate change are less dramatic, the capacity to respond is greater). |
| Biodiversity | Structural | Crucial to limit the risks of mass extinctions of species, therefore, to reduce major risks such as famine, wars and pandemics. In an immediacy perspective, preservation of variety of species as a major source of drugs and sources of well-being (for natural food replacing pesticides for instance). |
| Energy productivity | Structural + immediacy | Capacity to continue to produce with a limited amount of energy available (for instance if a major continental oil or gas-pipeline is destroyed by terrorism or an earthquake; or because of an oil crisis; or because energy plants are stopped by a pandemic). |
| Fundamental rights | Structural + Impact | Capacity for social cohesion + to preserve democracy after a shock. |
| Security (homicide rate) | Impact | Measures the absence of serious troubles after a shock (social resilience). To a certain extent also measures a social consensus that has a structural positive impact on resilience. |
| Transparency 1 – Public corruption | Structural + immediacy | Capacity to ensure the quality of public services (quality of hospitals and stocks, quality of bridges and railroads, quality of emergency services, etc.) that mitigate the impact of risks that occur. Capacity to rightly use funds for their purpose after a crisis arises. Contribute to social consensus and psychological resilience in favour of common efforts. |
| Transparency 2 – Fight against money laundering | Structural + Immediacy | Limitation of crime, terrorism and hard drugs that constitute a serious risk for our societies, capacity to maintain a fiscal base to produce services increasing resilience; preservation of social consensus. |
| Sound public finance | Structural | Capacity to preserve an intergenerational solidarity (preservation of pensions and of support to adaptation of young ones to the labour market) key for social cohesion, an important factor of resilience. |
| TPI (global indicator) | Structural | Capacity to build a policy consensus around common goals, measured in a transparent manner. Key for the credibility of governments and the implications of citizens (serious issue: see the worrying decline in the election participation rate for instance), which at the end of the day measures the overall resilience of a democratic system. |

*Source: European Commission, Transitions Performance Index 2020.*



## IX.5. IS THERE A LINK BETWEEN GLOBALISATION AND TPI PERFORMANCE?

The link between globalisation and transition performance is another much-debated economic issue. When referring to GDP growth, some economists point to the statistical link between trade and GDP to substantiate that the economic gains resulting from a better allocation of resources through trade have a global positive impact on the economy[45]. However, this view is criticised notably for not considering the negative impact of international trade on the environment and, in certain cases, on local development.

As the TPI is designed to give an alternative definition of prosperity, it can be used to assess the existence or not of such relations[46]. **Figure 14** plots TPI scores against trade openness (goods and services trade as a percentage of GDP)[47]. As is the case with GDP, innovation or digitalisation (see previous sub-sections), a statistical analysis should control for common and confounding factors (such as population size[48]), but the overall absence of a significant correlation between openness to trade and the TPI, while not conclusive, is an indication that globalisation seems not to be, per se, a determinant of transition performance, positively or negatively. This preliminary finding does not rule out, however, that the different forms of globalisation could have a potential impact, on, for instance, the respect of human rights or on environmental and safety regulations and norms. In addition, well-known spillover effects of some forms of trade on the environment or governance should also be considered[49]. This would be consistent with the analyses presented in the literature review (second part) cited previously regarding the relationship between growth and trade.

Switzerland, the United Kingdom, Denmark, Japan, Norway, Sweden, France, Germany, Italy, the Netherlands, Austria, Spain, the EU, Finland, Portugal, South Korea, Israel, Slovenia, Belgium, New Zealand and Czechia perform better in the TPI than their peers in trade openness (by a margin of 10% or more over the trendline).

Conversely, South Africa, Nigeria, Vietnam, Iran, Bosnia and Herzegovina, Ukraine, Kenya, Russia, Mexico, Serbia, Brazil, Montenegro, Armenia, Moldova, Saudi Arabia, Georgia, Singapore, Egypt, India, the Philippines, Argentina, Tunisia, Turkey, the United Arab Emirates, Colombia, Thailand, Morocco, North Macedonia and Malaysia are all 10 or more below the trend line, performing less well in TPI than countries with similar levels of trade openness.

45 L Alan Winters, Trade Liberalisation and Economic Performance: An Overview, The Economic Journal, Volume 114, Issue 493, February 2004, Pages F4–F21, https://doi.org/10.1111/j.0013-0133.2004.00185.x

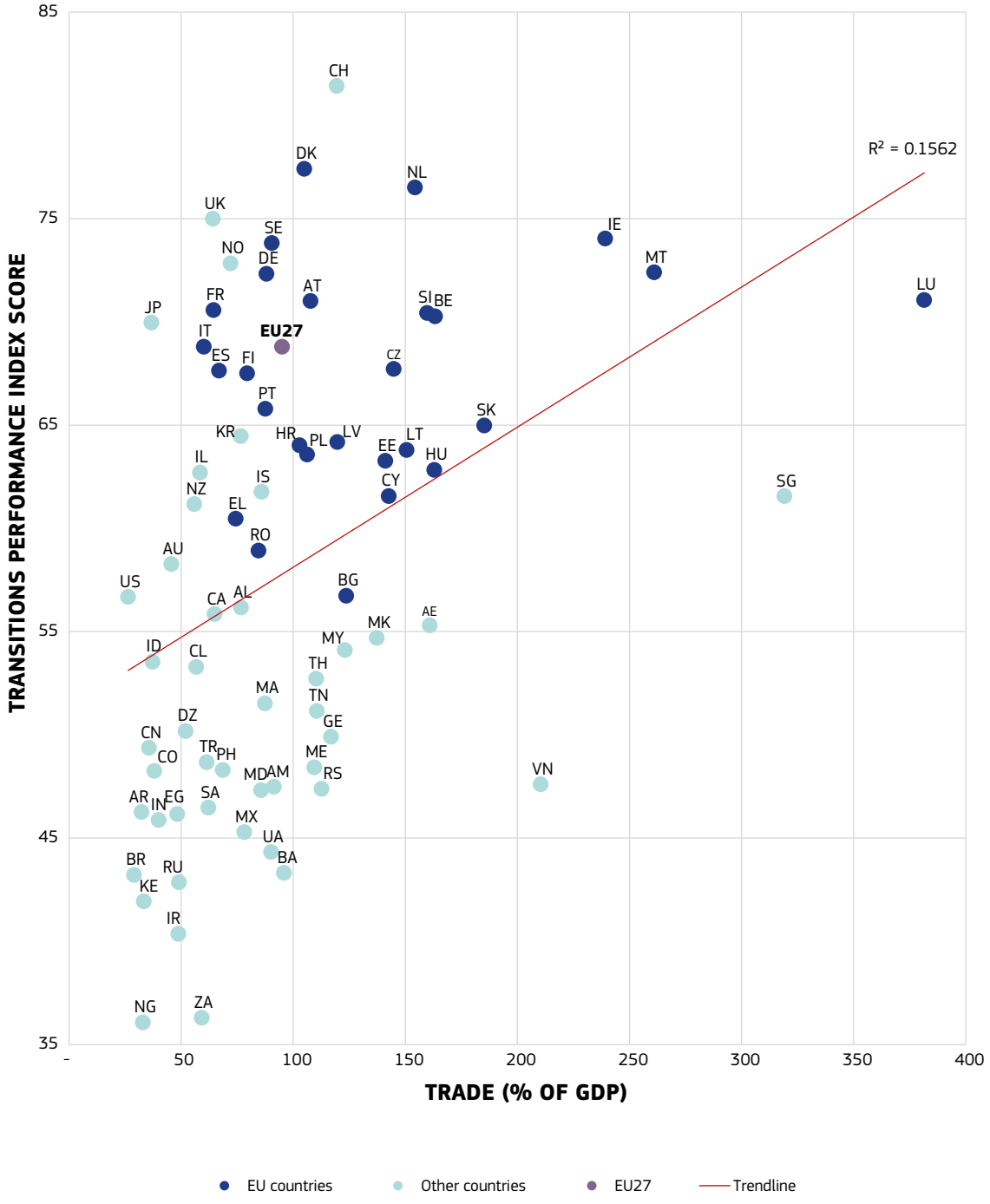
46 Foreign direct investment is another important dimension of globalisation that could be further analysed against the TPI, and which is generally correlated to trade.

47 Contrary to GDP, trade is not included in the TPI framework.

48 In the economic literature, the size of a country represents a classical factor in trade openness (the smaller the country, the more open to trade), even if the empirical evidence shows that this relationship is far from being linear, again, due to common and confounding factors. Luxembourg, Singapore, Malta and Ireland are outliers with populations below 6 million people and trade openness above 240%. On the contrary, Vietnam, with 95 million people, is highly open to trade, despite being highly populated; and China has a higher trade-to-GDP ratio than the United States, despite having four times as many inhabitants.

49 report from 'SDG Watch Europe' and 'Make Europe sustainable for all' https://mk0eeborgicuypctuf7e.kinstacdn.com/wp-content/uploads/2020/09/SDG-full-report_OK.pdf

**FIGURE 14: TPI and trade (% of GDP)**




*Source: European Commission, Transitions Performance Index 2020.*

# CONCLUSION

**The Transitions Performance Index (TPI) has been constructed around the four transitions: economic, social, environmental and governance. It reflects the path taken by various countries towards inclusive and sustainable prosperity over the past decade.**

The index reflects a policy choice. Material, scientific, and economic progress is not opposed to social inclusiveness, environmental sustainability, good governance, and overall quality of life.

What the index measures, therefore, is the effective convergence of policies to build a new model of fair and sustainable prosperity through efficiency, resilience, and intergenerational fairness.

The TPI fills serious gaps in the way we assess broadly-based sustainable prosperity. It also has the following advantages.

- It is ready to use.
- It provides a global ranking covering 91% of global GDP.
- It uses existing data sets covering the past decade.
- It addresses in a holistic way the traditional weaknesses of GDP by using a 'beyond GDP' approach.
- It provides policymakers and stakeholders with a benchmark for assessing the overall performance of a country in transforming into 'a fair and prosperous society, with a modern, resource-efficient and competitive economy and where the transition (...) is just and inclusive'[50].
- With just 25 indicators, it complements more comprehensive monitoring reports that are based on more than 100 indicators[51].
- It illustrates the contributions of each transition to the overall performance of a country, indicating strengths and weaknesses, room for progress, and possible trade-offs.

The TPI, like any composite indicator, will benefit from improvements in the future. For instance, the country coverage could be expanded as data become available, and the TPI could also be applied to the sub-national (regional) level[52], in order to be closer of citizens and to take into account that regional competences vary significantly across countries. The indicator on work and inclusion could also be complemented with data on the inclusion of vulnerable groups (in addition to women on whom data are already included). In addition, the framework could be enriched with data on spill-over effects[53].

The factor that will most determine whether the TPI is successful will be the extent to which it is used in policymaking. If the TPI is used by policymakers, it can help to accelerate change towards a sustainable and fair society. A session of the Research and Innovation Days on 24 September 2020 dedicated to the TPI welcomed the prospect of the TPI being used in policymaking and insisted on the importance of continuing to promote it. The session also reached the following conclusions.

- The TPI would benefit from becoming part of well-established processes, such as the European Semester or a regular sustainability review. It would also benefit from being extensively communicated.

50 Quotation from Ursula von der Leyen, President of the European Commission. In addition, the EU annual sustainable growth strategy calls for "a new paradigm to address interrelated key challenges", noting that "environmental sustainability, productivity gains, fairness and macro-economic stability will be the four dimensions of our economic policy"

51 These include Eurostat's 110 indicators on sustainable development in the European Union (https://ec.europa.eu/eurostat/documents/3217494/11011074/KS-02-20-202-EN-N.pdf/334a8cfe-636a-bb8a-294a-73a052882f7f), and the SDG index and dashboards50 of the Sustainable Development Solutions Network and Bertelsmann Stiftung, which have a combined 115 indicators (85 global, and 30 additional indicators for OECD countries).

52 The index can also be computed at the sub-national level. When data points or series are not available at the sub-national level, the national values can be used instead.

53 A recent report from 'SDG Watch Europe' and 'Make Europe sustainable for all' (available at https://mk0eeborgicuypctuf7e.kinstacdn.com/wp-content/uploads/2020/09/SDG-full-report_OK.pdf) highlights in this respect that the "most pressing challenges include European global ecological footprint, human-rights and labour-rights violations in supply chains and other negative spill-over effects of European policies and practices to third countries including through unfair tax regimes or arms exports". To ensure international comparability within the TPI, the same data would need to be made available in all countries covered by the index.

- The harmonisation of data reporting by international organisations is a challenge already being addressed by the United Nations in the global SDG indicators database53. The TPI could help this harmonisation by focusing on a reduced number of priority indicators.
- The use of the TPI in research could bring forward new insights and policy recommendations.
- The TPI highlights both the importance of creating a new sense of global community, and Europe's willingness to cooperate with the rest of the world to achieve common goals. The TPI's global results and holistic framework could facilitate bilateral and multilateral cooperation dialogues.

The future will tell whether this index will achieve its objectives. This report shows the feasibility of creating a composite indicator with four dimensions that brings robust and credible results by using data sources and methodologies that are accessible and verifiable.

The TPI's greatest advantage is its simplicity. It will give the public a much-needed sense of ownership of the four transitions as well as an objective benchmark on the impact of national policy mixes. It will support the efforts, reforms, and cooperation needed to design a better world for present and future generations.

# APPENDICES

# APPENDIX I

## CONCEPTUAL FRAMEWORK

# 1. INTRODUCTION AND STRUCTURE

## THE POLICY CHALLENGE: TO COMPLETE THE NECESSARY TRANSITIONS TO THE BENEFIT OF THE PUBLIC AND OF THE PLANET

Europe and all the countries and regions of the world are facing major and interconnected challenges. The economy – globalised, complex, and interdependent – has become overly sensitive to potential shocks in any part of the world. This can be seen in the financial crisis, major environmental disasters, or the recent COVID-19 crisis. Human activities have never endangered the environment as much as they do now. This is because of demography, urbanisation, our ever-growing need for energy, and our widespread use of pollutants. Rising inequalities, unemployment, and the transformation of work are weakening social consensus. Faced with these challenges, there is a risk that core democratic values become second-rank priorities. This could mean a dark future for people all over the world and for European citizens.

This situation is not new, and warnings have been issued about it for years. In 2015, under the auspices of the United Nations, 195 nations agreed to change the world for the better and committed to work towards 17 key Sustainable Development Goals[1] (SDGs), each of which encompasses a wide range of issues.

This was a major step in raising awareness of the crossroads at which humanity stands.

In order to support and complement the comprehensive SDG monitoring framework[2], simplified frameworks can add value in terms of their accessibility to the wider public. This is the goal of a new transitions performance index (TPI) we are proposing here.

Developing a **Transitions Performance Index (TPI)** offers a tool to help us benchmark the integrated impact of the progress we make towards the sustainability agenda. Making this index simple and easy for the public to understand would increase accountability of governing bodies. And making the index comparable across countries would help us to recognise and encourage each other's progress and consider the global dimension of the challenges we are all facing. Finally, making the index meaningful would help us to create a new definition of prosperity that would benefit us all while protecting the planet.

The index takes as starting point the six headline priorities set by the Commission President at the start of her mandate[3] :

1. **A European Green Deal**, which sets Europe to be the first climate-neutral continent by becoming a modern, resource-efficient economy.

2. **An economy that works for people**, working for social fairness and prosperity and creating a more attractive investment environment and growth that creates quality jobs, especially for young people and small businesses;

3. **A Europe fit for the digital age**, empowering people with a new generation of technologies; The industrial strategy adopted on 10 March 2020 explained that 'at the heart of this is the ability of Europe's industry to lead the twin ecological and digital transitions and drive our competitiveness'[4] ;

4. **Promoting our European way of life**, protecting the rule of law and building a Union of equality, tolerance and social fairness in which we all have the same access to opportunities;

1 https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf
2 https://ec.europa.eu/eurostat/web/sdi/overview
3 https://ec.europa.eu/info/sites/info/files/political-guidelines-next-commission_en_0.pdf
4 COM(2020) 102 final of 10.3.2020.

5. **A stronger Europe in the world**, championing multilateralism and strengthening our unique brand of responsible global leadership;.

6. **A new push for European democracy**, nurturing, protecting, and strengthening our democracy.

These priorities are fully consistent with the four priorities set by the European Council[5] that aim at **protecting citizens and freedoms, developing a strong and vibrant economic base; building a climate-neutral; green fair and social Europe** as well as **promoting European interests and values on the global stage.**

**The TPI has been built with a four-pillar structure. These four pillars for transition correspond to the four priorities set out by the European Union**. It reflects the vision of Commission President Ursula von der Leyen: "I want Europe to strive for more when it comes to social fairness and prosperity"[6]. On 11 December 2019, the Commission adopted the European Green Deal as "a new growth strategy with a view to transform the European Union into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use. It aims to conserve and enhance the European Union's natural capital, as well as to protect the health and well-being of citizens from environment-related risks and impacts. At the same time, the transition to undertake must be just and inclusive. It must put people first and pay attention to the regions, industries and workers who will face the greatest challenges".

## DEVELOPING A NEW DEFINITION OF PROSPERITY

It is not sufficient that the framework structure for the index mirrors the policy agenda with four corresponding transitions pillars. The indicators used to build the index must also be economically meaningful. In other words, the combination of indicators used in each pillar should build a consistent image of a meaningful goal. If this is achieved, the TPI value will not simply be a random selection of indicators chosen in a top-down manner; instead it will be a meaningful goal towards which to strive.

Taken together, these four transitions aim to achieve a new growth model, and a new type of prosperity for Europe and other countries around the world whose people have similar ambitions.

Developing prosperity has been a long-standing objective for nearly all countries and one of the EU's main goals for promoting peace, European values, and the well-being of its people.

5 'A new strategic agenda 2019-2024', conclusions of the European Council on 20 June 2019.
6 Political Guidelines for the next Commission 2019-2024, p. 8

As it is currently composed, the TPI reflects a concern to go 'beyond GDP', measures performance in managing much-needed transitions and defining progress towards an **fair and sustainable prosperity**. The goal is to build a consensus to progress collectively towards a situation where individuals or groups of individuals (such as cities, regions, countries) improve regularly, and in a sustainable and socially inclusive way, their well-being. This in objective material terms (e.g. consumption, health) as well as in immaterial terms (freedom of choice, democracy, fairness in taxation, access to cultural and social capital), with a positive impact on future generations (notably by preserving natural resources and biodiversity but also by limiting public debt).

## GOING BEYOND GDP

GDP is the standard indicator used internationally to measure the capacity of an economic zone to produce wealth, thus making it a core component of prosperity. However, the limits of this indicator are well-known. Since the attempts by Nordhaus and Tobin (1973) to develop a measure of economic welfare, the issue has become a central theme of research and policy discussion, highlighted by the report of the Stiglitz-Sen-Fitoussi Commission (2008) and subsequent theoretical work. There is now a recognised need to improve GDP as a measure and to go beyond it.

The main issues with GDP can be grouped into four categories: (i) shortcomings linked to the monetary nature of the aggregate and the difficulty of measuring non-monetary aspects; (ii) shortcomings linked to the absence of analysis of socioeconomic aspects; (iii) shortcomings linked to the fact that GDP analyses flows and not stocks; and (iv) shortcomings linked to the static nature of GDP, which does not provide information on the ability of an economy to sustain development and progress.

1. Shortcomings due to the **monetary nature** of GDP

- No measuring – or limited measuring – of **non-monetary activities**. This concerns – for instance – household work, charity work, political or religious activities, and overall security and defence within a society. The TPI complements economic transition indicators with social, environmental, and governance transitions, including gender, security, biodiversity protection, resource and energy productivity and other aspects that impact both economic activities and quality of life.

- No measuring of the **value of leisure**. GDP measures production of – and spending on – entertainment and tourism. However, it does not quantify the availability of time for leisure, which is nevertheless a substitute for such consumption. The TPI uses indicators such as the total number of hours worked during a lifetime as a proxy for measuring free or non-remunerated time.

- **Distributional aspects** are not included. Depending on inequalities in income distribution, a large share of the 'prosperity' of a population may be reduced while GDP increases. The TPI includes distributional and social dimensions (equality, inclusion).

2. Shortcomings of GDP in **measuring the quality of life**

- GDP is a measure of production. It does not measure the direct impact of production on individual welfare, while 'prosperity' refers to the perceived feeling of well-being by individuals, such as the distance travelled between work and home. The TPI considers real **disposable income and diversity of choice** (notably favoured by **innovation and creativity**) as important aspects of prosperity.

- GDP is only a proxy to measure the real quality of goods or services. Theoretically prices should adjust to reflect differences in quality. However, these adjustments are limited by imperfections in the market; the imperfect allocation of public spending; corruption; companies with dominant positions delaying for instance the introduction of innovations; and imperfectly informed consumers. The TPI complements economic indicators with direct measures of quality of life, such as healthy life expectancy.

3. Shortcomings due to GDP being a **measure of flows** and not of stocks

- GDP does not measure the **impact of the economy on the stock of natural resources** (including biodiversity). Failing to measure the impact of production on the environment makes it impossible to measure how the prosperity of future generations is being affected by current activities.

The TPI complements GDP with indicators measuring the economy's impact on stocks of natural resources.

- GDP does not measure the **speed of depreciation in the value of the stock of goods and knowledge** already produced. Increasing the value of that stock would significantly increase the prosperity of people. The existing stock of wealth could be protected by the reusability of goods; the protection of the environment; the rule of law protecting individuals and property; the absence of corruption; and the absence of inflation. The TPI includes this approach transversally across transitions.

4. Shortcoming due to GDP being a **static measure**, not appropriate for measuring the capacity of an economy to sustain development in the future

- While most of the production measured by GDP is consumed, some of it remains and adds value for future generations. In other words, not all the components of GDP have the same positive impact on the future. The TPI measures an economy's capacity to: (i) invest so it can maintain a sufficient industrial base; (ii) innovate; and (iii) ensure future development. Investment in education and improvements in organisation and research all lead to increased productivity. All of these are necessary to complement the static nature of GDP as an indicator.

## 2. SUMMARY AND PURPOSE

The design of the TPI thus combines two features.

Firstly, with its framework of four pillars, the index reflects the four dimensions of sustainable development in the economy, society, environment and governance. This fully responds to the policy priorities of the EU and supports the overarching SDG framework. Each pillar represents an independent dimension with a strong and clear meaning that brings benefit to the overall index. Under each pillar, there are four policy objectives. These objectives also reflect the main priorities of the EU and progress towards these objectives will be statistically measured through goalposts based on targets

Secondly, the choice of indicators for the pillars largely addresses the limitations of GDP in a balanced statistical way.

There is no shortage of existing frameworks to monitor prosperity, well-being, sustainability, and sound governance. These frameworks have inspired our work. The economic logic behind a new composite indicator is inspired by the decades of work by economists and debates within social groups on developing 'beyond GDP' perspective[7]. However, the existing literature on this debate is insufficiently known by the large public. Moreover, most existing composite indicators have either a less integrated coverage, or are based on a very large and complex set of indicators, the visibility and weight of each being therefore unfortunately limited. This makes the analysis of the results difficult to access to anyone except experts.

The purpose of the TPI is therefore to:

- complement more comprehensive monitoring reports, notably Eurostat's yearly Sustainable development in the European Union reports;
- supplement and support the EU's progress toward achieving the 2030 Sustainable Development agenda;
- compare progress within the EU and with the EU's main trading partners based on a ranking;
- give visibility to progress or lack of progress;
- promote communication and dialogue with society and trigger policy debates – both of which would benefit from all available data and reports;
- is computed for a period of 10 years to illustrate and analyse the reasons for the differing performance of countries and enable quick updates to be made for monitoring purposes;
- be intuitive to understand and create confidence through its transparency, due to the use of a limited number of outcome-oriented indicators.

In any case, the policy motivation for building a new composite indicator is the existence of a pressing issue, common to many countries: the need to manage painful and strenuous transitions to address major global challenges, with the informed support and participation of citizens.

7 Notably the United Nations Human Development Index (also in its inequality adjusted form), the report of the Stiglitz-Sen-Fitoussi Commission (2008), and various OECD reports on an inclusive growth initiative and on the definition of well-being.

**TABLE I.1: TPI conceptual framework and indicators**

| TRANSITIONS PERFORMANCE INDEX | | | |
|---|---|---|---|
| **ECONOMIC TRANSITION**<br>Making the economy work for prosperity | **SOCIAL TRANSITION**<br>Focusing on fairness and inclusion | **ENVIRONMENTAL TRANSITION**<br>Supporting the European Green Deal objectives | **GOVERNANCE TRANSITION**<br>A new push for democracy |
| **Education**<br>Government expenditure in education per student (% of GDP per capita) | **Health**<br>Healthy life expectancy at birth (years) | **Emissions reduction**<br>Gross greenhouse gas emissions (tonnes per capita) | **Fundamental rights**<br>Voice and accountability index and rule of law index |
| **Wealth**<br>Gross domestic product (GDP) per capita, current dollars (PPP$) | **Work and inclusion**<br>Employment rate of population 20-64 (%), Employment-to-population ratio gender gap 25+ (%), and Early childhood care and education (%) | **Biodiversity**<br>Terrestrial and freshwater key biodiversity areas protected (%) and pesticides use per area of cropland (kg/a) | **Security**<br>Homicide rate (per 100,000 inhabitants) |
| **Labour productivity and R&D intensity**<br>Output per worker (2011 constant GDP PPP$) and gross expenditure on R&D (% of GDP) | **Free or non-remunerated time**<br>Free or non-remunerated time (%) | **Resource productivity**<br>Resource productivity (PPP$ per kg): GDP (PPP$) per unit of domestic material consumption (DMC) of raw materials (kg) | **Transparency**<br>Corruption Perceptions Index and Basel Money Laundering Index |
| **Industrial base**<br>Gross value added of manufacturing (% of GDP) and patent families filed in two offices (per billion PPP$ GDP) | **Equality**<br>Gini coefficient of disposable income, post taxes and transfers and Income share held by the poorest quintile (%) | **Energy productivity**<br>Energy productivity (PPP$ per koe): GDP (PPP$) per unit of energy use (kilogram of oil equivalent, koe) | **Sound public finances**<br>General government gross debt (% of GDP) |

*Source: European Commission, Transitions Performance Index 2020.*

# 3. DETAILED COMPOSITION

## PILLAR 1. ECONOMIC TRANSITION

***Objective: Making the economy work for a new prosperity.***

***Rationale***: To go beyond GDP measures of prosperity by adding elements on a country's ability to sustain long-term economic growth through investment in human capital (education), innovation and industry.

The first pillar, economic transition, is the pragmatic part of the transformation agenda. A radical economic transformation is required that provides sufficient funding for the environmental transformation needed, while securing resources for jobs, housing, food, etc.

At the same time, this transition must ensure that research, innovation, and training help to facilitate progress. This can be achieved by investing in the education of future generations and guaranteeing that value creation is rooted within the regions in transformation and not offshored. This is a challenge for the European continent, but not solely. The various elementary indicators in this pillar describe a well-functioning, competitive and smart economy.

The first pillar sets the basic precondition for a prosperous society and a healthy economy. GDP measures the overall production of goods and services, but this growth must be sustainable, i.e. with competitive economies where knowledge and new technology result from education, training, and innovation. There is no guarantee that growth in GDP and private activity will automatically generate a sufficient level of these public goods[8], and the indicators are chosen to address that risk.

### SUB-PILLAR 1.1. EDUCATION

***Objective: Knowledge sustainability.***

***Indicator***: Government expenditure on education per student (% of GDP per capita).

***Rationale***: Education at all levels (primary, secondary, and tertiary) is a prerequisite for a sustainable transition path.

Education is a collective good providing many spillover benefits. Therefore, on top of the legitimate private funding already measured in per capita GDP, public funding of education is a valid measure of the collective effort in favour of education.

For education, the difficulty is to create a simple, objective, output indicator that would comprehensively cover the results of the public effort made at primary, secondary and tertiary level. Output measures do not discriminate between public and private efforts, and objective measures such as the rankings compiled by the OECD's Programme for International Student Assessment do not cover tertiary level. Therefore, for the time being, a proxy input indicator is used that seems appropriate for the European situation.

In future editions, if an outcome indicator becomes available and is widely supported, it could be considered to complement or replace the current indicator. Moreover, as part of the European Semester, detailed data exist to monitor the various dimensions of education, and the TPI does not aim to duplicate these fundamental reports.

### SUB-PILLAR 1.2. WEALTH

***Objective: To maintain the economic conditions that provide the resources for collective and individual well-being.***

***Indicator***: Gross domestic product (GDP) per capita, current dollars (PPP$).

***Rationale***: The inclusion of GDP is not a plea for growth – and certainly not a plea for growth at any cost. However, one cannot avoid the reality that: (i) the Earth faces a growing population; (ii) individual salaries from work (which also go through tax revenues to pay for pensions and social care) depend on a healthy economy; and (iii) public and private investments are needed to face the economic transformation.

### SUB-PILLAR 1.3. LABOUR PRODUCTIVITY AND R&D INTENSITY

***Objective: To ensure the sustainability of industrial and technological progress.***

***Indicator***: Composite of: (i) output per worker (2011 constant GDP PPP$), and (ii) gross expenditure on R&D (% of GDP).

8 The second pillar addresses the difficulty of GDP to differentiate between types of activities and the risks it does not reflect adequately variations in individual welfare.

***Rationale***: Scientific progress, innovation, and human capital adapted to the digital transformation enable economies to be resilient. They also enable economies to provide better products and services to respond to individual and social needs, while remaining internationally competitive. Total factor productivity would have been the most appropriate proxy to measure an economy's capacity to sustain progress over time. However, the only available metric is an index with a base year aimed at measuring progress and not absolute levels.

The combination of labour productivity and R&D intensity adequately describes the impact of: (i) physical investment, work organisation, and business models; and (ii) two main intangibles: improvement in skills and investment in science and innovation. Moreover, one of the Europe 2020 targets is to increase combined public and private investment in R&D to 3% of GDP[9].

### SUB-PILLAR 1.4. THE INDUSTRIAL BASE

***Objective:*** ***Technology sustainability, providing the basis to produce locally and to deploy innovative solutions across the territory; increased resilience.***

***Indicator***: Composite of: (i) manufacturing gross value added (% of GDP), and (ii) patent families filed in two offices (over GDP PPP$).

***Rationale***: An economy that innovates and provides jobs supports the European socioeconomic model. Local production also protects the environment, in particular by minimising transport and greenhouse-gas emissions. Most of Europe's knowledge and intellectual assets need to be deployed locally to create a critical mass for diffusing this knowledge and these assets across various sectors and disciplines. For this reason, the development of smart, innovative, and sustainable industry in Europe is a key objective. The COVID-19 crisis has shown that the resilience of an economy also depends on its capacity to: (i) respond quickly to local needs; (ii) maintain sufficient capacity of production locally (or within a common market); and (iii) in certain cases have a sufficient degree of technological sovereignty to prioritise emerging needs. Beyond the health domain, such needs may exist in other areas, such as the environment, the digital economy, healthy food, energy, or defence.

## PILLAR 2. SOCIAL TRANSITION

***Objective:*** ***Focusing on fairness and inclusion.***

***Rationale***: To measure the extent to which people live in a society that provides health, jobs, household income, and free time in a fair and inclusive manner. Even with a well-functioning economy and democracy (measured in pillars 1 and 4), the principle of 'people first' guides the European Commission's action, in line with the SDGs.

The second pillar, social transition, is the part of the conceptual framework dealing with fairness. It is aimed at assessing whether: (i) the European social model is being improved and protected; and (ii) the resources that are generated (and measured in Pillar 1) are being used efficiently to fairly serve the needs of the people. It encompasses major areas that affect everyone's lives such as: (i) health protection; (ii) access to work; (iii) fairness in the distribution of incomes; (iv) fairness in the tax and redistribution systems; and (v) the capacity to have spare time for personal and social activities.

### SUB-PILLAR 2.1. HEALTH

***Objective:*** ***Providing health to the public/citizens.***

***Indicator***: Healthy life expectancy at birth (years).

***Rationale***: A society and economy that work for people must strive to improve people's health. Health and healthcare are lifelong concerns. For this reason, this sub-pillar focuses more on having a healthy life than merely a long life. The choice of indicator is therefore healthy life expectancy at birth, as opposed to plain life expectancy. This indicator also includes the worrying challenge of mental-health problems, which affect a growing share of the population worldwide.

### SUB-PILLAR 2.2. WORK AND INCLUSION

***Objective:*** ***Providing access to work in an inclusive manner.***

***Indicator***: Composite of: (i) the employment rate of people aged 20-64; (ii) the employment-to-population ratio gender

9 https://ec.europa.eu/eurostat/documents/4411192/4411431/Europe_2020_Targets.pdf

gap of people aged 25 or more; and (iii) early childhood care and education (%).

***Rationale***: Having a job is necessary to have a regular income, advance in society, and build achievements with social value. Working should be accessible to everyone, with no discrimination by race, gender, or minority status. The employment rate includes data that reflect discrimination by age, gender, or social/racial origin (the indicator worsens with discrimination).

Two indicators have also been included that increase the weight given to both gender discrimination and the absence of early childhood care and education (which de facto limits access to employment for parents). One of the Europe 2020 targets is to increase the employment rate of the population aged 20-64 to at least 75%[9].

In future editions, this sub-pillar could be strengthened by adding an indicator on wage discrimination – and possibly an indicator on access to work by disabled persons – as soon as international data with sufficient coverage are available.

### SUB-PILLAR 2.3. FREE OR NON-REMUNERATED TIME

***Objective:*** ***Providing time for personal use, social networking, and volunteering.***

***Indicator***: Free or non-remunerated time of the active population (%).

***Rationale***: It is a modern historical trend that progress and productivity can be used to liberate people of the obligation to work long hours for most of their lives, providing free time for creativity, social commitments, family, sports, etc. Free time is not directly measured by GDP nor by most of the existing indicators, even though it has been an essential part of social progress since the abolition of slavery. Similarly, the social contribution of non-remunerated work – within households, charities, or social networks – is also not fully considered in GDP, even though it is growing in importance in our societies. This indicator is therefore essential to arrive at a real understanding of well-being. The indicator has been designed to be independent of the employment rate, measured in the previous sub-pillar.

### SUB-PILLAR 2.4. EQUALITY

***Objective:*** ***Reducing inequality in personal income distribution after taxes and transfers.***

***Indicator***: Composite of: (i) the Gini coefficient of disposable income, after taxes and transfers; and (ii) the income share held by the poorest quintile.

***Rationale***: Contemporary societies have often sought to reduce inequality of income. Fairness in salaries, redistribution, and progressive taxes all contribute to this objective. This drive to reduce inequality is not limited to a charity-type approach, caring only for the poorest. Instead, it is about taking from – and redistributing to – the entire population. The Gini coefficient measures not only the wealth gap between the richest and poorest members of society, but also the distribution of wealth across the board. This is especially relevant today when digital and economic transformation are constantly changing job profiles and affecting the salaries of the middle classes.

In this sub-pillar, the Gini coefficient is complemented with the income share held by the poorest 20% of the population to consider the situation of the people at risk of exclusion, as this part of the population is particularly affected by transformations and at the moment by the Covid-19 crisis.

## PILLAR 3. ENVIRONMENTAL TRANSITION

***Objective:*** ***Supporting the objectives of the European Green Deal.***

***Rationale***: To measure the extent to which countries are protecting biodiversity, tackling climate change, and making productive use of resources and energy.

This pillar deals directly with the insufficiency of GDP to measure the impact of growth on the stock of common environmental goods. The scale of the environmental crisis justifies making the environmental transition a central element of the index at this turning point in our history, corresponding to the political priority set by the Green Deal.

### SUB-PILLAR 3.1. EMISSIONS REDUCTION

***Objective:* Tackling climate change by reducing gross greenhouse-gas emissions.**

***Indicator***: Gross greenhouse-gas emissions, excluding land use, land-use change and forestry (LULUCF), (tonnes per capita).

***Rationale***: The European Green Deal aims at 'tackling the climate challenge'. The main way to address this challenge is by reducing greenhouse-gas emissions and improving energy productivity (sub-pillar 3.4). These two objectives require different types of policies and investments, and they have different impacts on the organisation of production and consumption patterns. Sub-pillar 3.1 focuses on changing consumption patterns, while sub-pillar 3.4 focuses on improving the model of production. Both actions are fundamental, and the political choices must decide on the policy mixes between the two.

One of the Europe 2020 targets is 'Reducing greenhouse-gas emissions by at least 20% compared to 1990 levels'[9].

### SUB-PILLAR 3.2. BIODIVERSITY

***Objective:* Protecting biodiversity.**

***Indicator***: Composite of: (i) terrestrial and (ii) freshwater key biodiversity areas protected (%), and (iii) pesticide use per area of cropland (kg/ha).

***Rationale***: The loss of biodiversity has accelerated to an unprecedented level in Europe and worldwide. It has been estimated that the current global extinction rate is 100 to 1 000 times higher than the natural rate. In Europe, some 42% of mammals are endangered, together with 15% of birds and 45% of butterflies and reptiles.

The European Green Deal 'aims to conserve and enhance the European Union's natural capital'. Protecting biodiversity is the most pressing challenge for the survival of humankind in the medium to long term. Indeed, biodiversity is the key indicator of the health of an ecosystem, as a wide variety of species cope better with threats than a limited variety of species. Even if certain species are affected by pollution, climate change or human activities, ecosystems may adapt and survive. However, the extinction of a species may have unforeseen impacts, sometimes snowballing into the destruction of entire ecosystems.

For a complete picture, biodiversity is measured in: (i) protected areas on land, (ii) protected areas on freshwater); and (iii) in the much larger non-protected areas such as farmland with the use of pesticides in cropland as a proxy. These indicators complement the GHG-emissions indicator, which besides addressing climate change includes emissions by cars and industry (and other pollutants). Other metrics on sulfur oxides and non-methane volatile organic compounds were also considered, but they have been discontinued at the international level. In the future, data on artificialised soils and on other air pollutants could be considered if they become available on a comparable basis at global scale.

### SUB-PILLAR 3.3. RESOURCE PRODUCTIVITY

***Objective:* Using efficiently the stock of material resources and minimising their impact on the environment.**

***Indicator***: GDP per unit of domestic material consumption of raw materials (PPP$ per kg).

***Rationale***: Resource productivity means using the Earth's limited resources in a sustainable manner while minimising impacts on the environment. This makes it possible to create more value with less input. It is an essential component of the European Green Deal. The promotion of a resource-efficient production base will further encourage a fundamental transition in the EU towards a circular economy where resources are not simply extracted, used, and thrown away.

The fundamental question is to what extent GDP growth can be decoupled from material consumption. Innovation, the circular economy, digitalisation, and informed consumer choices all contribute to this objective. For data-availability and comparability reasons, the index uses raw-material data. This choice also means avoiding the risk of double counting with indicator 3.4 (below), which is correlated with the use of energy material (oil, coal, etc.).

### SUB-PILLAR 3.4. ENERGY PRODUCTIVITY

***Objective:*** ***Protecting the stock of energy resources for future generations and minimising its impact on the environment.***

***Indicator***: GDP per unit of energy use (PPP$ per kg of oil equivalent, koe).

***Rationale***: The production process – as well as fundamental activities such as housing or transportation – cannot exist without energy. As with resource productivity, the objective in this sub-pillar is to improve the efficiency of the economic system (production, transport, distribution, use and recycling) to make energy use sustainable.

One of the Europe 2020 targets is to improve energy efficiency by moving towards a 20% increase in energy efficiency (equalling a reduction to 1483 Mtoe of primary energy consumption by 2020), with energy efficiency calculated as the inverse of energy productivity[9].

## PILLAR 4. THE GOVERNANCE TRANSITION

***Objective:*** ***Promoting the European model of governance.***

***Rationale***: To measure the extent to which institutions, systems of law, and community commitment ensure democracy, security, a healthy society, and the well-being of future generations (including by not leaving excessive debts to future generations).

The increased risks of disinformation, populism, and insufficient social dialogue show that governance cannot be separated from the other three pillars of transitions performance.

A sustainable path for 'a new growth strategy with a view to transform an economic zone into a fair and prosperous society'[10] requires to ensure that society is based on a common societal model, in which people feel they have a stake and to which they feel they belong. This is the political pre-requisite.

The second pillar measures well-being at the individual level. The fourth pillar on the governance transition takes a broader view, describing key aspects of the institutional and societal framework that ground the social contract between citizens and society. This pillar reflects the institutional and collective choices to be made to preserve and improve societies. The agenda for transformation will not be acceptable without maintaining and enhancing the guarantees that form the basis of the governance systems.

### SUB-PILLAR 4.1. FUNDAMENTAL RIGHTS

***Objective:*** ***Ensuring fundamental institutional rights for citizens.***

***Indicator***: Composite of: (i) voice and accountability (index), and (ii) rule of law (index).

***Rationale***: Fundamental rights are a basic prerequisite for the social contract. The World Bank worldwide governance indicators cover six areas, two of which have been retained for the indicators in this sub-pillar: (i) voice and accountability; and (ii) rule of law. These are taken as proxies for fundamental rights firmly established under the Universal Declaration of Human rights[11].

### SUB-PILLAR 4.2. SECURITY

***Objective:*** ***Providing security to citizens.***

***Indicator***: Homicide rate (per 100000 inhabitants).

***Rationale***: Security affects everybody. The most direct measure of security is whether citizens are seriously at risk. High levels of violent crime compromise physical safety and psychological well-being, and the stress they cause also has a negative impact on health. An analysis of the data showed some biases in violent-crime indicators (probably due to the deficient recording of instances of serious assault, robbery, rape, etc.). For this reason, the homicide rate is used as a proxy. The data on imprisonment rates was also considered as a second indicator, but the interpretation and comparability of data unfortunately made it impossible to use.

10 An EU goal stated in The European Green deal, Brussels, 11.12.2019, COM(2019) 640 final.
11 Adopted by The United Nations General Assembly in 1948.

### SUB-PILLAR 4.3. TRANSPARENCY

***Objective:*** ***Providing a healthy society with limited symptoms of dysfunction.***

***Indicator:*** Composite of: (i) the public corruption-perception index, and (ii) the Basel anti-money laundering index.

***Rationale***: Citizens wish to live in a society whose institutions they can trust. Patricia Moreira, Managing Director of Transparency International says that 'corruption chips away at democracy to produce a vicious cycle, where corruption undermines democratic institutions and, in turn, weak institutions are less able to control corruption'.

The perception of public corruption is a good indicator of whether the citizens trust the behaviour of their administration and public authorities. Similarly, the Basel anti-money laundering index measures the degree of trust in a financial system and whether it favours tax avoidance or money laundering, weakening social consensus and the sense of justice.

### SUB-PILLAR 4.4. SOUND PUBLIC FINANCES

***Objective:*** ***To avoid financing present consumption and investment at the expense of future generations.***

***Indicator***: General government gross debt (% of GDP).

***Rationale***: Societies face profound transformations, and the temptation is great to finance these by endangering the stability of public finances. This presents two serious costs, both of which add to the burden faced by future generations. Firstly, by delaying difficult but necessary choices, the proper management of this transformation is compromised. Secondly, the present generation could maintain its advantages by adding to public debt, leaving the bill to future generations.

The management of 'stocks' is essential to the implementation of the 'beyond GDP' perspective. Increasing the stock of debt, destroying natural stocks (biodiversity, resources, etc.), or stopping investment in stocks of human capital and knowledge all endanger the wealth of future generations.

The Covid-19 crisis will have a negative statistical impact on many measures of 'stocks' in the TPI, due to increases in poverty and debt, and lower levels of investment. This will obviously impact the evolution of the TPI score in the coming years, as would have any major crisis. For this reason, the behaviour of the TPI will need to be monitored and, if needed, be adapted, including this ratio. It is expected, for instance, that the increase in the value of this ratio could be somewhat counterbalanced by the indicators with GDP in the denominator. In anticipation, however, the decision was to assign a small weight to this indicator.

Furthermore, the target goalposts for this indicator are kept less demanding than the EU target threshold of 60%. Considering the economic crisis stemming from the pandemic, as well as countries' different stages of development, the TPI sets a compromise. On the one hand, the importance of protecting future generations from excessive debt is recognised: prudent prioritisation of public investment (in R&D or environmental investment, for instance) may generate sustainable growth, alleviating the cost of the debt in the future. On the other hand, there is a need for flexibility and time to adapt to the health and economic crises. The upper and lower 'goalposts' (target ranges), the normalisation method, and the weights (see Appendix IV - Technical notes) are all designed to avoid unduly penalising countries. The independent statistical audit recommends an analysis of the statistical behaviour of this indicator for future editions of the TPI.

The place of this indicator under the governance pillar is justified, as it is neutral in terms of allocation of resources. Levels and trends in debt-to-GDP depend on the democratic capacity to: (i) make fiscal choices (to reach a consensus on the prioritisation of expenses); and (ii) have a social agreement to contribute to tax (tax evasion and tax avoidance are two of the greatest challenges in all political regimes). Levels and trends of debt-to-GDP also depend on good governance at all levels. Local cronyism may inflate public debt at other governance levels, e.g. at the city or district level. This indicator is therefore part of ensuring the good governance needed to create a consensus for managing the economic, social, and environmental transitions monitored by the three other pillars of the TPI.

# APPENDIX II

## COUNTRY PROFILES

## COUNTRY PROFILES HOW-TO-READ

This appendix provides detailed profiles for each of the 72 countries in the Transitions Performance Index 2020, the European Union (EU) and the world.

Please see Appendix III Technical notes for details on computations and modelling choices, such as weights, upper and lower goalposts for normalisation, aggregation, etc. And refer to Appendix IV Sources and definitions for details on indicators.

1. The first box, below the country name, includes four key context indicators for all countries: Population in million inhabitants[1]; Gross Domestic Product (GDP) per capita in current Purchasing Power Parity dollars (PPP$); GDP in billion PPP$[2]; and trade as a percentage of GDP[3].

EU countries and a few other countries include the Summary Innovation Index score [0-100][4]; EU countries and the United Kingdom include the Digital Economy and Society Index score [0-100][5].

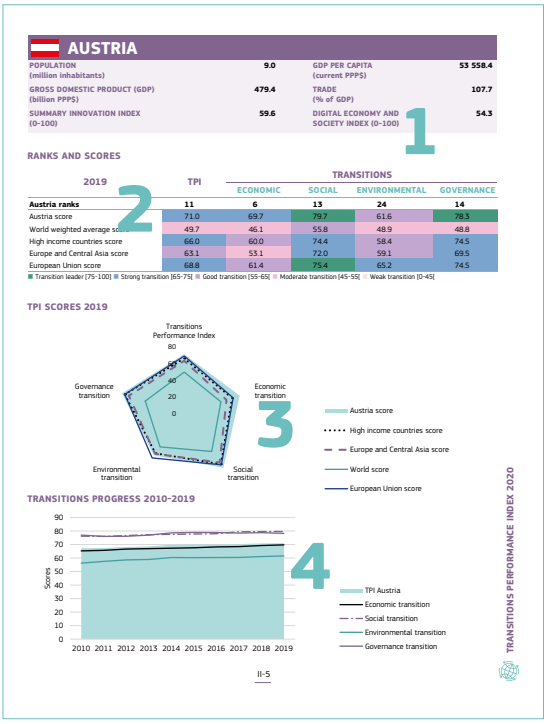
2. The **'Ranks and scores'** table includes, for the TPI and each of the four transitions (economic, social, environmental and governance), each country's 2019 ranks and scores, the weighted average arithmetic score for the 72 countries (the 'World' score), the simple arithmetic average scores for the income group and geographical region to which the country pertains, and the EU score.

Income group is defined according to the World Bank Income Group Classification (July 2019): lower-middle income; upper-middle income; and high income (the 2020 TPI does not include low income countries)[6].

Geographical regions include the Americas; Europe and Central Asia; Middle East and Africa; and South East Asia and Pacific. The EU is a distinct category included in all country profiles.

Scores are normalised in the [0-100] range; rankings range from 1 to 72; the EU and world scores are not ranked.

Scores are colour-coded into five '**transition groups**' based on fixed values: 'transition leader', in dark green ■, for scores greater than or equal to 75, and less than or equal to 100 ([75-100]); 'strong transition', in blue ■, for scores greater than or equal to 65, and less than 75 ([65-75[); 'good transition', in purple ■, for scores greater than or equal to 55, and less than 65 ([55-65[); 'moderate transition', in pink ■, for scores greater than or equal to 45, and less than 55 ([45-55[); and 'weak transition', in beige ■, for scores greater than or equal to 0, and less than 45 ([0-45[).




1 United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects 2019, https://population.un.org/wpp/

2 Both series from the International Monetary Fund, World Economic Outlook Update, June 2020 (see Section IX.1) https://www.imf.org/en/Publications/WEO/Issues/2020/06/24/WEOUpdateJune2020

3 World Bank, World Development Indicators, downloaded 16 September 2020 (see Section IX.5) https://data.worldbank.org/indicator/NE.TRD.GNFS.ZS

4 European Commission, Digital Economy and Society Index 2020 (see Section IX.3), https://digital-agenda-data.eu/datasets/desi/visualizations

5 European Commission, European Innovation Scoreboard 2020, Summary Innovation Index (see Section IX.2) https://ec.europa.eu/growth/industry/policy/innovation/scoreboards_en.

6 Income classifications are set each year on 1 July and are fixed during the World Bank's fiscal year (ending on 30 June). Income groups are defined based on the Gross National Income (GNI) per capita, calculated using the World Bank Atlas method: low income economies are those with a GNI per capita of USD 1 035 or less in 2019; lower-middle income economies are those with a GNI per capita between USD 1 036 and USD 4 045; upper-middle income economies are those with a GNI per capita between USD 4 046 and USD 12 535; and high income economies are those with a GNI per capita of USD 12 536 or more.

3. The '**TPI scores 2019**' radar chart presents the scores from the previous table. The country score is represented by the shaded area, while lines represent the income, region, world and EU scores.

Note that the world and EU TPI and transition score plain lines (green and blue) represent roughly mid- and three-quarters of the way towards the upper goalpost score of 100.

4. The '**Transitions progress 2010-2019**' chart presents country scores over the 2010-2019 period. The shaded area represents the TPI score, while lines represent each of the four transitions: economic, social, environmental and governance. For the EU profile, only the 27 current members are included in the computation of scores for the entire period (i.e. the United Kingdom is not included).

5. The second page of the profile includes detailed information for each country, the EU, and the world. Rows present the TPI (in purple), the four pillars, i.e. transitions (in dark green, name in bold, single-digit code), the 16 sub-pillars (four for each pillar, in light green, name in capital letters, two-digit code), and the 25 indicators (in white, three-digit code, unless a sub-pillar includes a single indicator, in which case it appears in light green, as a sub-pillar, with a two-digit code).

For example, indicator 1.3.2 Gross expenditure on R&D (% of GDP) appears under sub-pillar 1.3 LABOUR PRODUCTIVITY & R&D INTENSITY, which, in turn, appears under **pillar 1. Economic transition**. Similarly, single indicator 2.1 Healthy life expectancy at birth (years) appears under sub-pillar 2.1 (same code), HEALTH, which, in turn, appears under **pillar 2. Social transition**.

Regarding columns, for each indicator, 'value' is the value in the unit provided in parenthesis in the name of the indicator. Then for each dimension (indicator, sub-pillar, pillar, or TPI), 'rank' is the rank of each 'score' among the scores of the 72 countries. Each 'score' is the normalised score of the indicator 'value' in the [0-100] range. Where data are not available, 'N/A' is used.

Each dimension 'score' and corresponding 'rank' (TPI, pillar, sub-pillar) is calculated as the weighted average of the scores in the sub-dimension (pillar, sub-pillar and indicator respectively). Please see Appendix III for details and modelling choices.

To the right of the table, two columns categorise the scores over the 2010-2019 period. Colour coding of scores into transition groups help to interpret score levels;[7] arrows and lines are a guide to interpret progress since 2010.

Arrows are used to compare the growth of 2019 scores over 2010 scores: ↓ indicates a decline of 10% or more; ↘ indicates a decline between 0% and 10%, '–' indicates growth within expected ranges, between 0 % and below 6.5%; ↗ indicates growth from 6.5 % but less than 13 %; and ↑ indicates growth above 13%.

Lines represent the evolution in scores. All scores use the same [0-100] range, and normalisation is based on the indicator's upper and lower goalposts which are fixed for the entire 2010-2019 period. Progress lines are not drawn in the [0-100] scale, however, they are drawn using automatic scaling, thereby depicting trends and evolution but not levels.

AUSTRIA

| | | 2019 VALUE | 2019 RANK | 2019 SCORE | 2010-2019 SCORE PROGRESS |
|---|---|---|---|---|---|
| TRANSITIONS PERFORMANCE INDEX | | | 11 | 71.0 | – |
| 1. | Economic transition | | 6 | 69.7 | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 19.1 | 18 | 76.3 | – |
| 1.2 | WEALTH: GDP per capita, current dollars (PPPS) | 53 558.4 | 14 | 71.4 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 9 | 63.1 | ↗ |
| 1.3.1 | Output per worker (2011 constant GDP PPPS) | 94 643.6 | 14 | 63.1 | – |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 3.2 | 6 | 63.1 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 10 | 66.5 | – |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 16.8 | 20 | 56.0 | – |
| 1.4.2 | Patent families filed in two offices (per billion PPPS GDP) | 4.3 | 12 | 82.2 | ↘ |
| 2. | Social transition | | 13 | 79.7 | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 70.9 | 20 | 86.3 | – |
| 2.2 | WORK AND INCLUSION | | 25 | 73.9 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 76.2 | 22 | 72.4 | ↗ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 11.9 | 19 | 83.1 | – |
| 2.2.3 | Early childhood care and education (%) | 55.2 | 35 | 58.6 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 59.5 | 14 | 80.9 | – |
| 2.4 | EQUALITY | | 17 | 77.6 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 29.7 | 15 | 78.4 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 8.0 | 21 | 75.0 | – |
| 3. | Environmental transition | | 24 | 61.6 | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 9.6 | 49 | 60.0 | – |
| 3.2 | BIODIVERSITY | | 24 | 70.4 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 66.6 | 28 | 66.6 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 71.2 | 24 | 71.2 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 3.3 | 42 | 76.1 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPPS per kg) | 2.7 | 21 | 45.1 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPPS per koe) | 14.2 | 19 | 70.9 | ↑ |
| 4. | Governance transition | | 14 | 78.3 | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 10 | 94.3 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 1.4 | 15 | 91.6 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 1.9 | 6 | 97.0 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.0 | 24 | 81.3 | ↘ |
| 4.3 | TRANSPARENCY | | 17 | 62.6 | ↗ |
| 4.3.1 | Corruption perceptions index (0-100) | 76.0 | 14 | 76.0 | ↗ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.6 | 31 | 53.6 | ↑ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 74.0 | 54 | 68.4 | ↗ |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

II-6

TRANSITIONS PERFORMANCE INDEX 2020

7 For scores, the colour coding is the same as that described under numbered paragraph 2 above.

## EUROPEAN UNION COUNTRY PROFILES



## REST OF THE WORLD COUNTRY PROFILES

# AUSTRIA

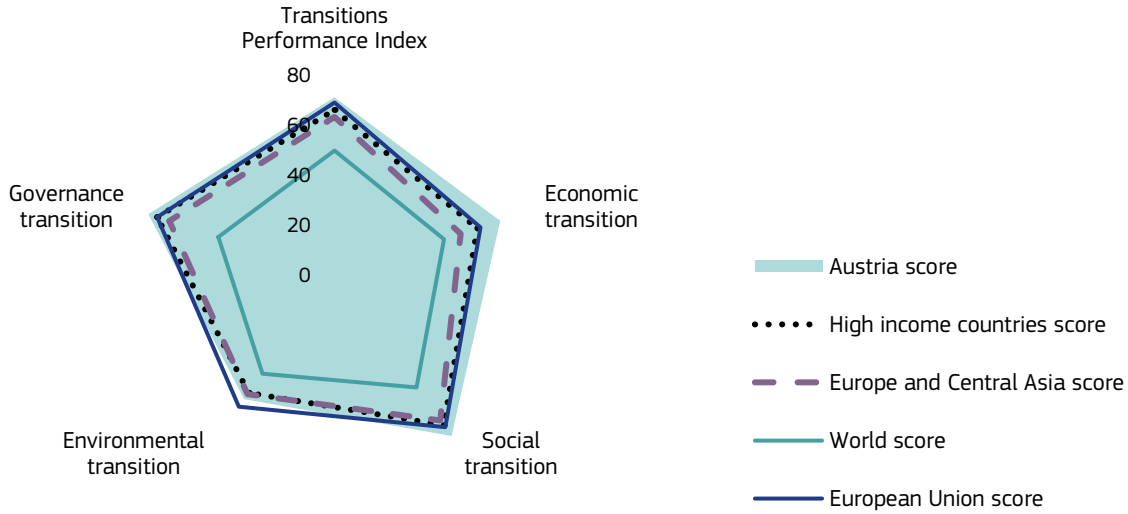
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **9.0** | **GDP PER CAPITA (current PPP$)** | **53 558.4** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **479.4** | **TRADE (% of GDP)** | **107.7** |
| **SUMMARY INNOVATION INDEX (0-100)** | **59.6** | **DIGITAL ECONOMY AND SOCIETY INDEX (0-100)** | **54.3** |

## RANKS AND SCORES

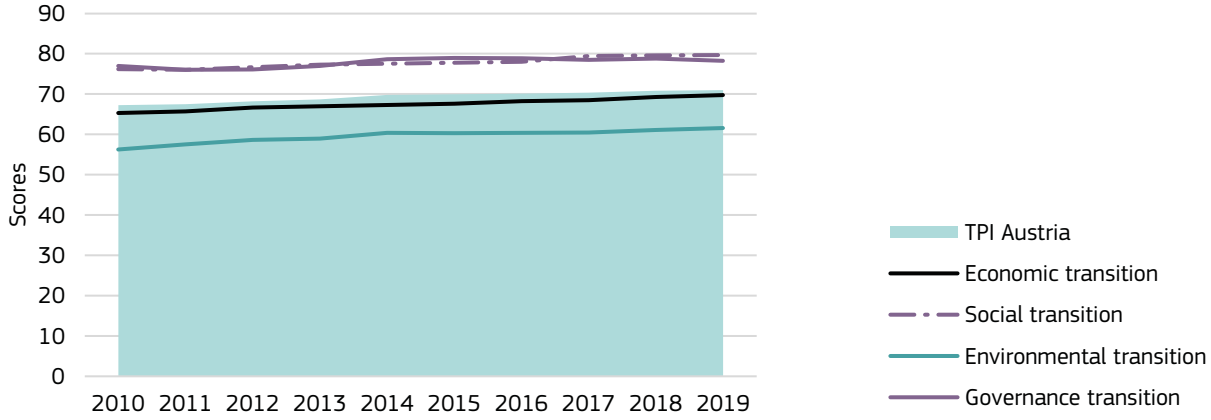
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Austria ranks** | **11** | **6** | **13** | **24** | **14** |
| Austria score | 71.0 | 69.7 | 79.7 | 61.6 | 78.3 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# AUSTRIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **11** | **71.0** | – |
| **1.** | **Economic transition** | | **6** | **69.7** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 19.1 | 18 | 76.3 | – |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 53 558.4 | 14 | 71.4 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 9 | 63.1 | ↗ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 94 643.6 | 14 | 63.1 | – |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 3.2 | 6 | 63.1 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 10 | 66.5 | – |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 16.8 | 20 | 56.0 | – |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 4.3 | 12 | 82.2 | ↘ |
| **2.** | **Social transition** | | **13** | **79.7** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 70.9 | 20 | 86.3 | – |
| 2.2 | WORK AND INCLUSION | | 25 | 73.9 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 76.2 | 22 | 72.4 | ↗ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 11.9 | 19 | 83.1 | – |
| 2.2.3 | Early childhood care and education (%) | 55.2 | 35 | 58.6 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 59.5 | 14 | 80.9 | – |
| 2.4 | EQUALITY | | 17 | 77.6 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 29.7 | 15 | 78.4 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 8.0 | 21 | 75.0 | – |
| **3.** | **Environmental transition** | | **24** | **61.6** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 9.6 | 49 | 60.0 | – |
| 3.2 | BIODIVERSITY | | 24 | 70.4 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 66.6 | 28 | 66.6 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 71.2 | 24 | 71.2 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 3.3 | 42 | 76.1 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.7 | 21 | 45.1 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 14.2 | 19 | 70.9 | ↑ |
| **4.** | **Governance transition** | | **14** | **78.3** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 10 | 94.3 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 1.4 | 15 | 91.6 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 1.9 | 6 | 97.0 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.0 | 24 | 81.3 | ↘ |
| 4.3 | TRANSPARENCY | | 17 | 62.6 | ↗ |
| 4.3.1 | Corruption perceptions index (0-100) | 76.0 | 14 | 76.0 | ↗ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.6 | 31 | 53.6 | ↑ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 74.0 | 54 | 68.4 | ↗ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# BELGIUM

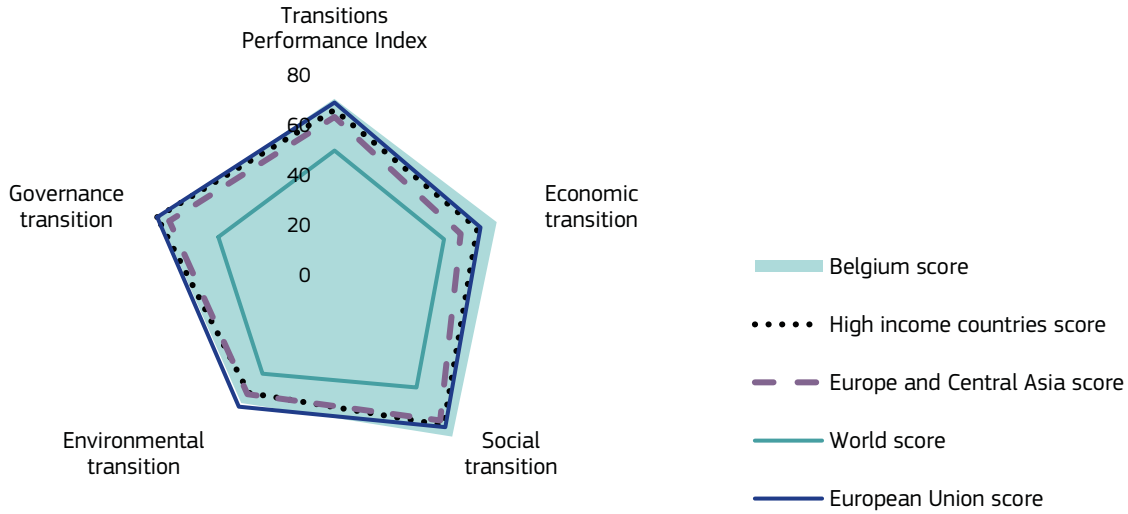
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 11.5 | GDP PER CAPITA (current PPP$) | 49 528.9 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 567.5 | TRADE (% of GDP) | 163.3 |
| SUMMARY INNOVATION INDEX (0-100) | 61.5 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 58.7 |

## RANKS AND SCORES

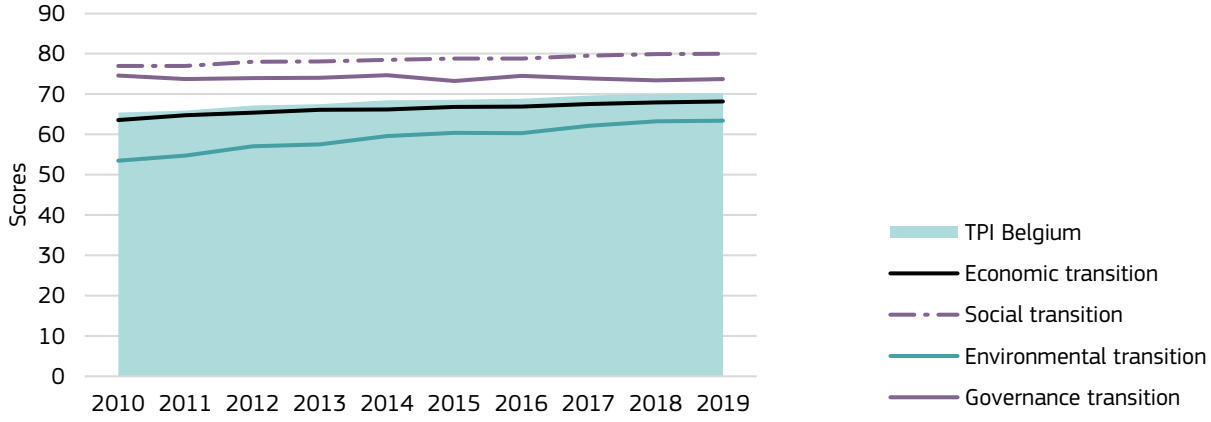
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Belgium ranks** | **14** | **9** | **10** | **19** | **23** |
| Belgium score | 70.3 | 68.2 | 80.0 | 63.4 | 73.7 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# BELGIUM

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **14** | **70.3** | ↗ |
| **1.** | **Economic transition** | | **9** | **68.2** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 21.9 | 7 | 87.6 | – |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 49 528.9 | 17 | 66.0 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 11 | 60.5 | ↗ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 103 779.2 | 8 | 69.2 | – |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 2.6 | 11 | 51.9 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 20 | 55.3 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 12.0 | 40 | 40.0 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 3.2 | 16 | 78.2 | – |
| **2.** | **Social transition** | | **10** | **80.0** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 70.2 | 25 | 83.9 | – |
| 2.2 | WORK AND INCLUSION | | 15 | 76.8 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 69.7 | 40 | 59.4 | ↗ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 10.6 | 13 | 84.8 | – |
| 2.2.3 | Early childhood care and education (%) | 77.3 | 4 | 95.4 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 54.7 | 29 | 72.2 | – |
| 2.4 | EQUALITY | | 10 | 83.6 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 27.4 | 8 | 83.6 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 8.7 | 12 | 83.8 | – |
| **3.** | **Environmental transition** | | **19** | **63.4** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 10.5 | 55 | 56.3 | ↑ |
| 3.2 | BIODIVERSITY | | 16 | 80.0 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 81.0 | 17 | 81.0 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 92.8 | 10 | 92.8 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 6.7 | 55 | 52.3 | ↓ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 4.0 | 8 | 67.2 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 10.0 | 47 | 50.2 | ↑ |
| **4.** | **Governance transition** | | **23** | **73.7** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 16 | 91.7 | – |
| 4.1.1 | Voice and accountability index (z-score) | 1.4 | 13 | 91.9 | – |
| 4.1.2 | Rule of law index (z-score) | 1.4 | 20 | 91.4 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.7 | 43 | 72.6 | – |
| 4.3 | TRANSPARENCY | | 11 | 64.3 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 75.0 | 16 | 75.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.3 | 22 | 57.1 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 100.0 | 65 | 51.6 | – |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# BULGARIA

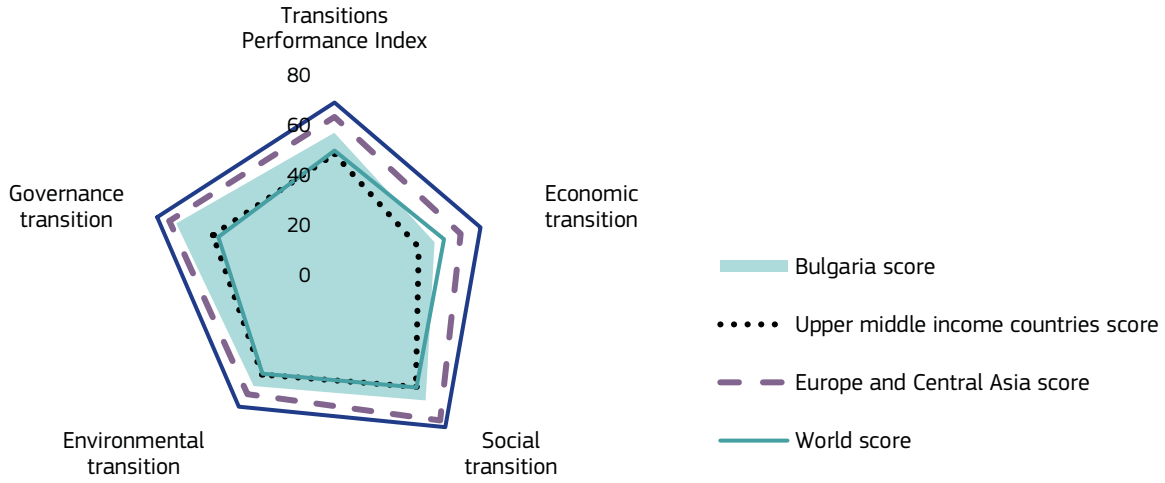
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 7.0 | GDP PER CAPITA (current PPP$) | 24 595.1 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 171.2 | TRADE (% of GDP) | 123.7 |
| SUMMARY INNOVATION INDEX (0-100) | 23.0 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 36.4 |

## RANKS AND SCORES

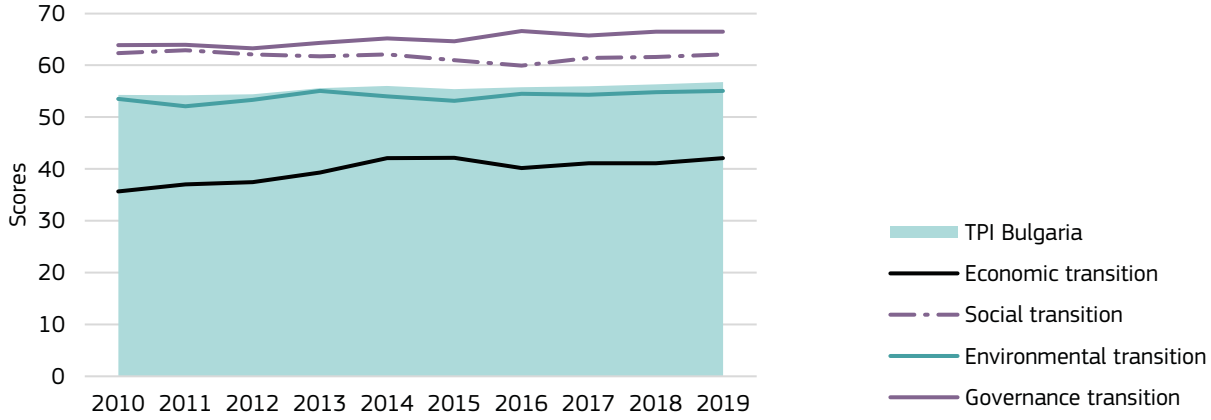
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Bulgaria ranks** | **37** | **44** | **43** | **38** | **36** |
| Bulgaria score | 56.7 | 42.1 | 62.1 | 55.1 | 66.5 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# BULGARIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **37** | **56.7** | – |
| **1.** | **Economic transition** | | **44** | **42.1** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 14.8 | 40 | 59.3 | – |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 24 595.1 | 45 | 32.8 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 49 | 22.4 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 44 652.2 | 48 | 29.8 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.8 | 47 | 15.0 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 41 | 44.2 | ↑ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 14.2 | 30 | 47.3 | ↑ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.2 | 44 | 39.5 | ↗ |
| **2.** | **Social transition** | | **43** | **62.1** | ↘ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 63.5 | 58 | 61.8 | – |
| 2.2 | WORK AND INCLUSION | | 38 | 66.3 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 72.4 | 33 | 64.8 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 12.9 | 26 | 81.5 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 43.3 | 59 | 38.8 | ↘ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 56.2 | 25 | 75.0 | ↗ |
| 2.4 | EQUALITY | | 58 | 52.6 | ↓ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 40.4 | 57 | 54.7 | ↓ |
| 2.4.2 | Income share held by the poorest quintile (%) | 5.7 | 57 | 46.3 | ↓ |
| **3.** | **Environmental transition** | | **38** | **55.1** | – |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 8.8 | 45 | 63.3 | ↘ |
| 3.2 | BIODIVERSITY | | 1 | 97.7 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 98.9 | 2 | 98.9 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 98.6 | 3 | 98.6 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 0.9 | 15 | 93.4 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.2 | 62 | 20.0 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 7.9 | 58 | 39.3 | ↑ |
| **4.** | **Governance transition** | | **36** | **66.5** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 45 | 55.8 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 0.3 | 42 | 62.7 | ↓ |
| 4.1.2 | Rule of law index (z-score) | (0.0) | 49 | 48.8 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.3 | 36 | 76.9 | ↗ |
| 4.3 | TRANSPARENCY | | 33 | 55.7 | ↗ |
| 4.3.1 | Corruption perceptions index (0-100) | 42.0 | 48 | 42.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 3.5 | 5 | 64.9 | ↗ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 22.3 | 1 | 100.0 | – |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# CROATIA

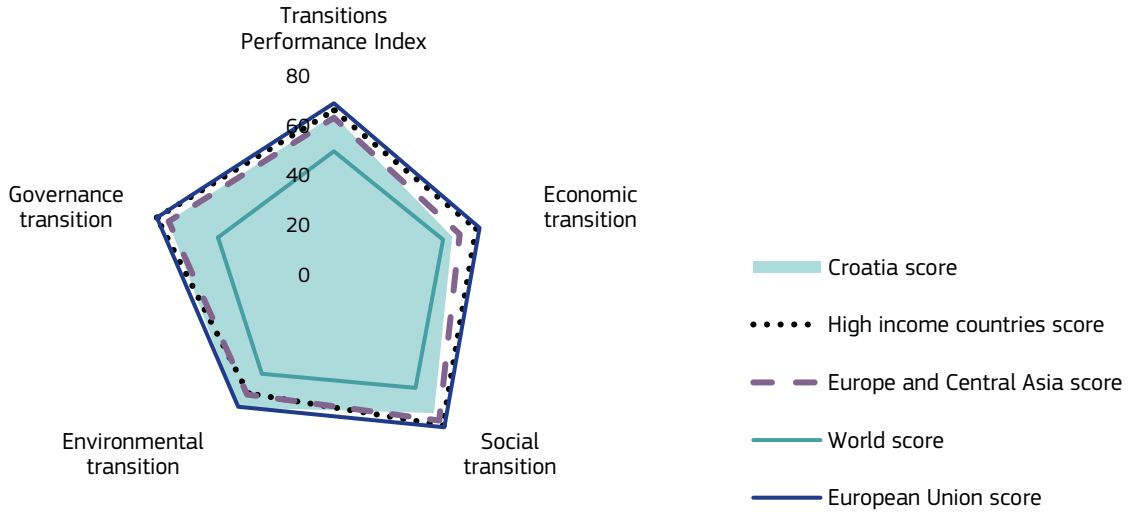
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **4.1** | **GDP PER CAPITA (current PPP$)** | **27 728.7** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **112.6** | **TRADE (% of GDP)** | **102.8** |
| **SUMMARY INNOVATION INDEX (0-100)** | **29.8** | **DIGITAL ECONOMY AND SOCIETY INDEX (0-100)** | **47.6** |

## RANKS AND SCORES

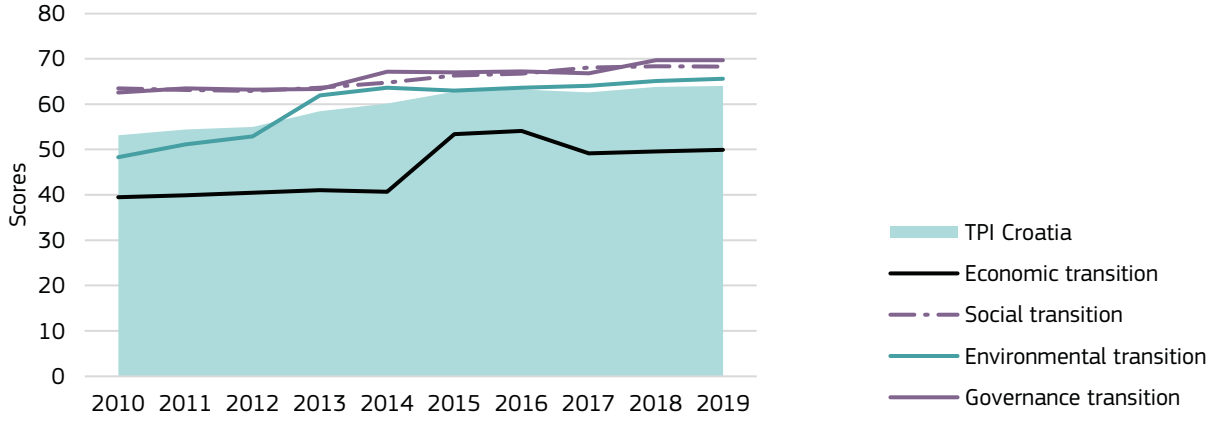
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Croatia ranks** | **24** | **37** | **33** | **13** | **31** |
| Croatia score | 64.0 | 49.9 | 68.3 | 65.6 | 69.7 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# CROATIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **24** | **64.0** | ↑ |
| **1.** | **Economic transition** | | **37** | **49.9** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 21.0 | 10 | 83.8 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 27 728.7 | 43 | 37.0 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 42 | 28.7 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 60 207.6 | 40 | 40.1 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.9 | 42 | 17.3 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 52 | 38.8 | ↓ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 12.0 | 40 | 40.0 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.1 | 47 | 36.9 | ↓ |
| **2.** | **Social transition** | | **33** | **68.3** | ↗ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 66.4 | 34 | 71.2 | – |
| 2.2 | WORK AND INCLUSION | | 44 | 60.3 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 65.2 | 49 | 50.4 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 13.7 | 27 | 80.4 | – |
| 2.2.3 | Early childhood care and education (%) | 43.8 | 56 | 39.7 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 49.0 | 42 | 61.8 | ↗ |
| 2.4 | EQUALITY | | 22 | 74.5 | ↗ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 30.4 | 17 | 76.9 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 7.4 | 31 | 67.5 | ↗ |
| **3.** | **Environmental transition** | | **13** | **65.6** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 6.2 | 24 | 74.2 | – |
| 3.2 | BIODIVERSITY | | 15 | 81.8 | ↑ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 74.1 | 25 | 74.1 | ↑ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 86.8 | 15 | 86.8 | ↑ |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 1.8 | 28 | 87.4 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.6 | 24 | 44.1 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 12.5 | 28 | 62.3 | ↑ |
| **4.** | **Governance transition** | | **31** | **69.7** | ↗ |
| 4.1 | FUNDAMENTAL RIGHTS | | 38 | 66.0 | – |
| 4.1.1 | Voice and accountability index (z-score) | 0.5 | 38 | 69.2 | – |
| 4.1.2 | Rule of law index (z-score) | 0.3 | 40 | 62.7 | ↗ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.6 | 10 | 87.4 | ↑ |
| 4.3 | TRANSPARENCY | | 31 | 56.3 | ↑ |
| 4.3.1 | Corruption perceptions index (0-100) | 48.0 | 39 | 48.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 3.8 | 10 | 61.8 | ↑ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 74.8 | 56 | 67.9 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# CYPRUS

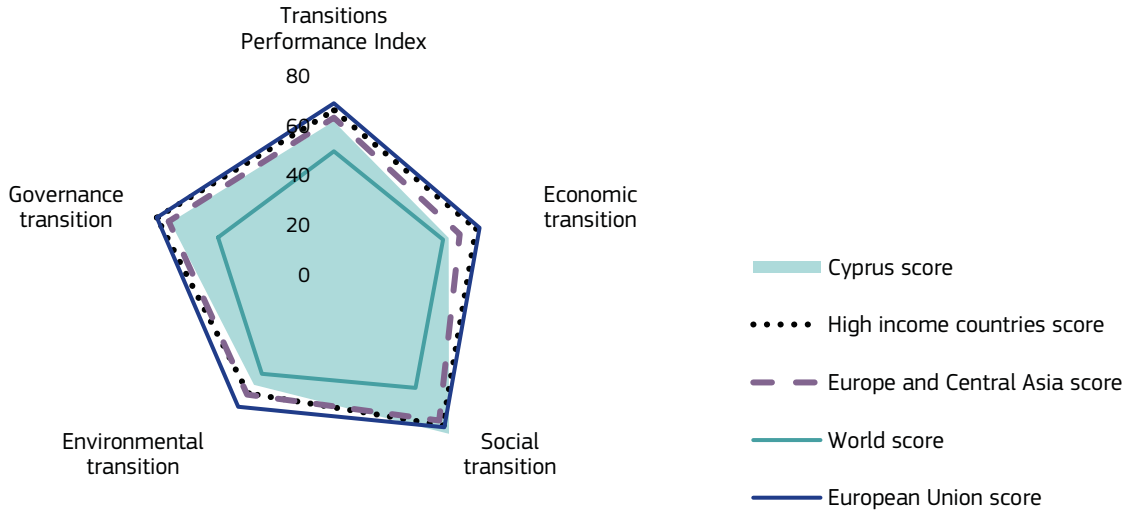
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **0.9** | **GDP PER CAPITA (current PPP$)** | **41 406.9** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **36.3** | **TRADE (% of GDP)** | **142.6** |
| **SUMMARY INNOVATION INDEX (0-100)** | **45.1** | **DIGITAL ECONOMY AND SOCIETY INDEX (0-100)** | **44.0** |

## RANKS AND SCORES

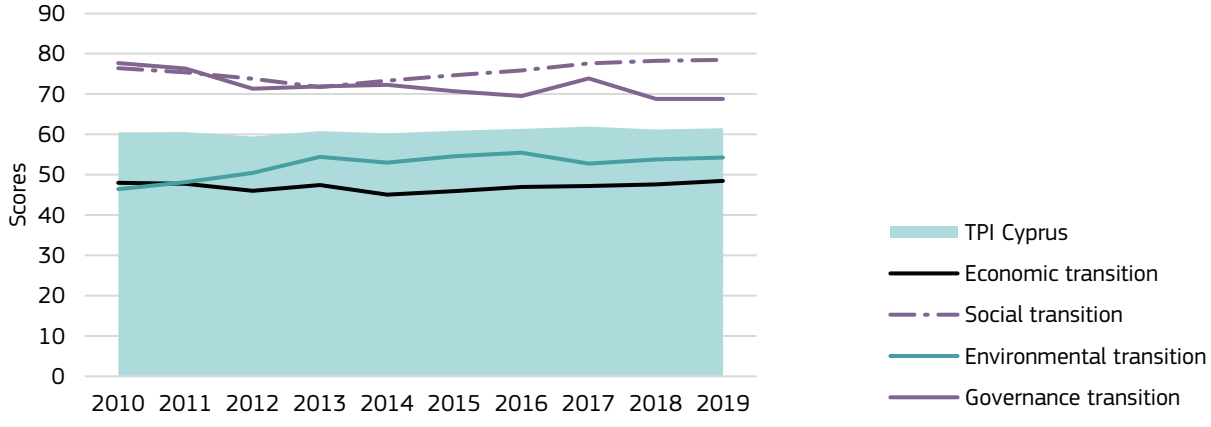
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Cyprus ranks** | **31** | **38** | **17** | **40** | **32** |
| Cyprus score | 61.6 | 48.4 | 78.5 | 54.2 | 68.8 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# CYPRUS

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **31** | **61.6** | – |
| **1.** | **Economic transition** | | **38** | **48.4** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 16.8 | 31 | 67.3 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 41 406.9 | 25 | 55.2 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 40 | 29.4 | ↗ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 71 563.2 | 27 | 47.7 | – |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.6 | 52 | 11.1 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 56 | 37.7 | – |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 4.9 | 70 | 16.3 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 1.7 | 21 | 69.8 | ↗ |
| **2.** | **Social transition** | | **17** | **78.5** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 71.9 | 8 | 89.7 | – |
| 2.2 | WORK AND INCLUSION | | 28 | 71.8 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 73.9 | 29 | 67.8 | ↘ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 14.5 | 31 | 79.3 | – |
| 2.2.3 | Early childhood care and education (%) | 58.9 | 31 | 64.8 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 56.5 | 23 | 75.5 | – |
| 2.4 | EQUALITY | | 19 | 76.0 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 31.4 | 20 | 74.7 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 8.4 | 15 | 80.0 | ↘ |
| **3.** | **Environmental transition** | | **40** | **54.2** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 11.6 | 58 | 51.7 | ↗ |
| 3.2 | BIODIVERSITY | | 34 | 57.8 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 66.1 | 29 | 66.1 | ↑ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | N/A | N/A | N/A | ↑ |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 8.2 | 59 | 41.4 | ↓ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.3 | 31 | 37.9 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 13.9 | 20 | 69.5 | ↑ |
| **4.** | **Governance transition** | | **32** | **68.8** | ↓ |
| 4.1 | FUNDAMENTAL RIGHTS | | 29 | 81.2 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 1.0 | 25 | 85.0 | – |
| 4.1.2 | Rule of law index (z-score) | 0.8 | 33 | 77.4 | ↓ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.3 | 33 | 77.4 | ↘ |
| 4.3 | TRANSPARENCY | | 39 | 53.5 | ↓ |
| 4.3.1 | Corruption perceptions index (0-100) | 59.0 | 28 | 59.0 | ↓ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.0 | 43 | 49.9 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 100.6 | 66 | 51.2 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# CZECHIA

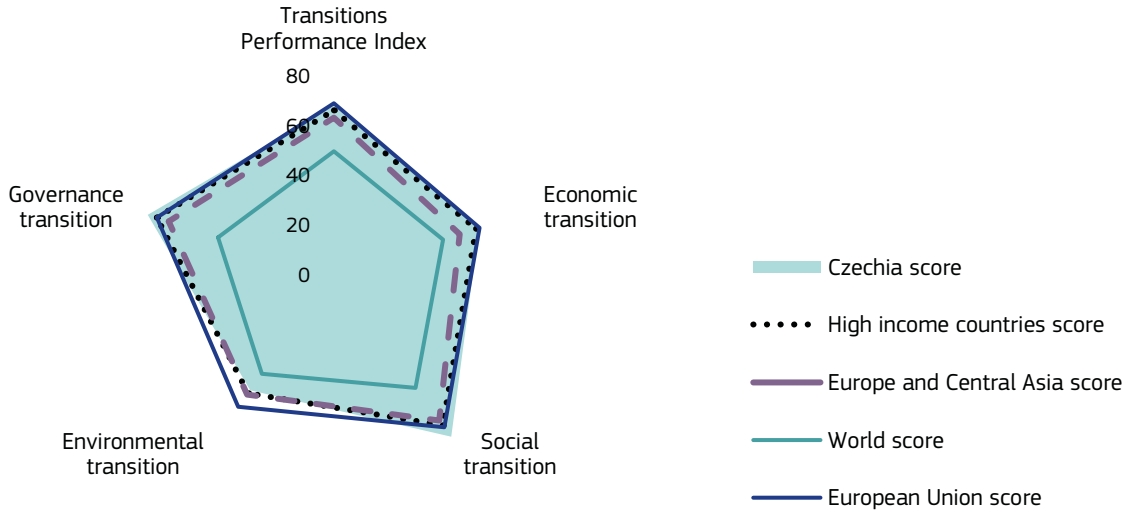
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 10.6 | GDP PER CAPITA (current PPP$) | 38 833.8 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 413.1 | TRADE (% of GDP) | 144.9 |
| SUMMARY INNOVATION INDEX (0-100) | 42.7 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 50.8 |

## RANKS AND SCORES

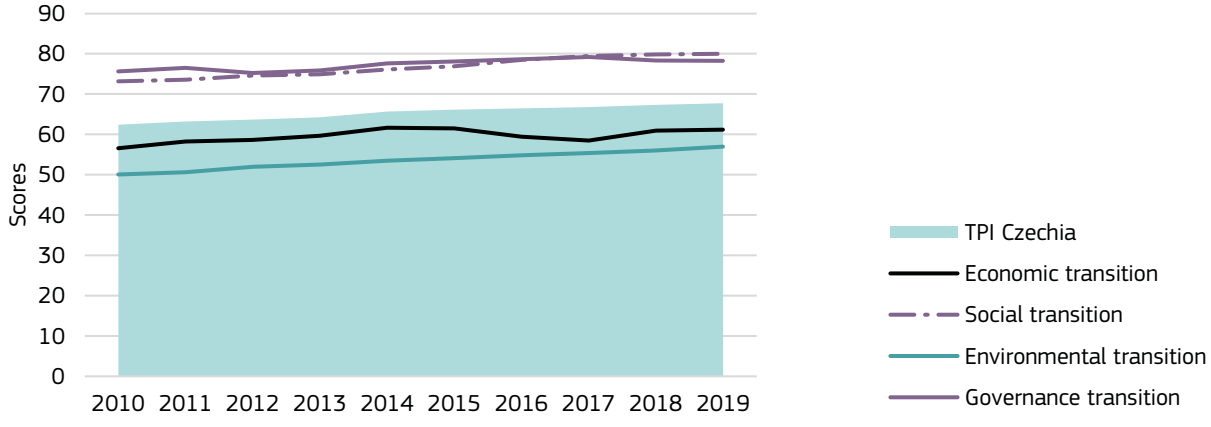
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Czechia ranks** | **17** | **18** | **11** | **34** | **15** |
| Czechia score | 67.7 | 61.2 | 80.0 | 56.9 | 78.3 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# CZECHIA

| | | 2019 VALUE | 2019 RANK | 2019 SCORE | 2010-2019 SCORE PROGRESS |
|---|---|---|---|---|---|
| **TRANSITIONS PERFORMANCE INDEX** | | | **17** | **67.7** | ↗ |
| **1.** | **Economic transition** | | **18** | **61.2** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 18.5 | 20 | 74.2 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 38 833.8 | 29 | 51.8 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 26 | 40.7 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 68 249.5 | 32 | 45.5 | ↗ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.8 | 20 | 35.8 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 8 | 68.0 | – |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 22.5 | 6 | 75.0 | – |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.7 | 29 | 57.6 | – |
| **2.** | **Social transition** | | **11** | **80.0** | ↗ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 67.0 | 31 | 73.4 | ↗ |
| 2.2 | WORK AND INCLUSION | | 29 | 71.4 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 79.9 | 7 | 79.8 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 17.2 | 40 | 75.5 | ↗ |
| 2.2.3 | Early childhood care and education (%) | 48.0 | 51 | 46.6 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 56.8 | 22 | 76.0 | ↗ |
| 2.4 | EQUALITY | | 2 | 91.8 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 24.9 | 2 | 89.1 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 10.2 | 1 | 100.0 | ↗ |
| **3.** | **Environmental transition** | | **34** | **56.9** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 12.3 | 60 | 48.8 | ↗ |
| 3.2 | BIODIVERSITY | | 6 | 91.3 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 92.3 | 5 | 92.3 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 92.1 | 11 | 92.1 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 1.7 | 26 | 87.6 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.4 | 28 | 40.6 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 9.4 | 49 | 47.1 | ↑ |
| **4.** | **Governance transition** | | **15** | **78.3** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 27 | 83.8 | – |
| 4.1.1 | Voice and accountability index (z-score) | 0.9 | 28 | 82.4 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 1.0 | 27 | 85.3 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.6 | 14 | 86.6 | ↗ |
| 4.3 | TRANSPARENCY | | 26 | 58.7 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 59.0 | 28 | 59.0 | ↑ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.2 | 20 | 58.5 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 32.6 | 14 | 95.1 | – |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# DENMARK

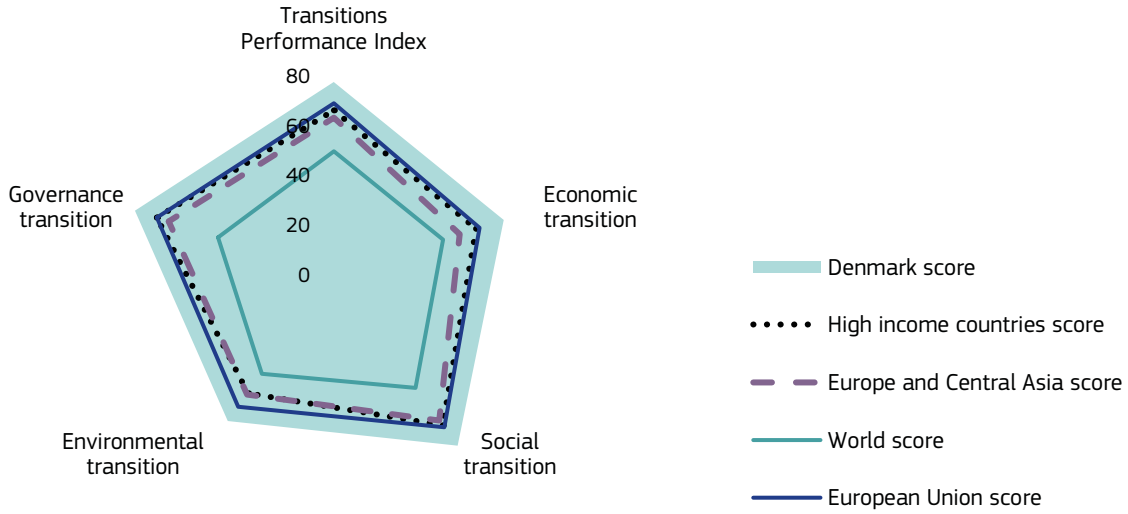
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 5.8 | GDP PER CAPITA (current PPP$) | 53 881.8 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 312.8 | TRADE (% of GDP) | 105.0 |
| SUMMARY INNOVATION INDEX (0-100) | 68.2 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 69.1 |

## RANKS AND SCORES

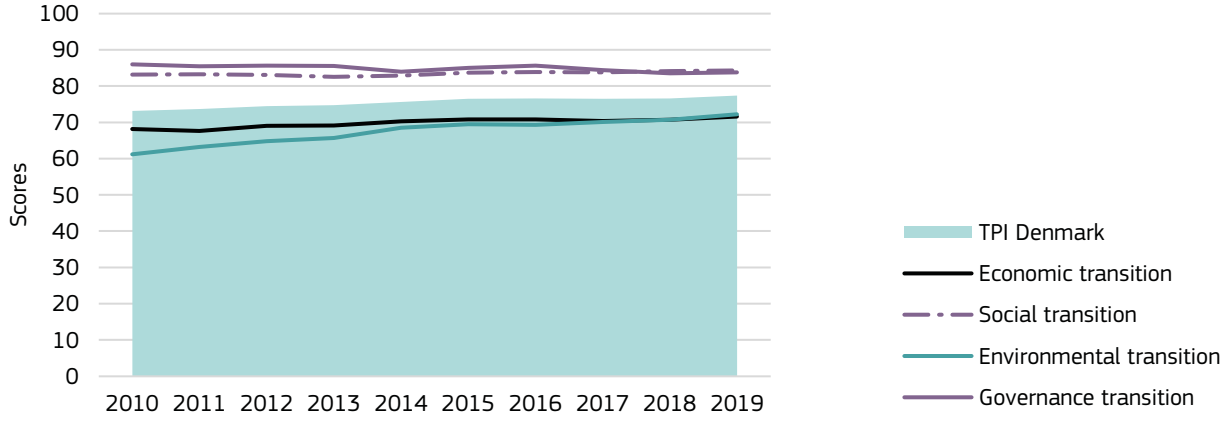
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Denmark ranks** | **2** | **4** | **5** | **6** | **4** |
| Denmark score | 77.4 | 71.6 | 84.3 | 72.2 | 83.8 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# DENMARK

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **2** | **77.4** | – |
| **1.** | **Economic transition** | | **4** | **71.6** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 22.2 | 6 | 88.7 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 53 881.8 | 12 | 71.8 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 8 | 63.1 | ↗ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 97 695.5 | 9 | 65.1 | ↗ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 3.1 | 7 | 61.1 | – |
| 1.4 | INDUSTRIAL BASE | | 15 | 60.0 | – |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 13.2 | 34 | 44.0 | ↑ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 4.9 | 11 | 84.0 | ↘ |
| **2.** | **Social transition** | | **5** | **84.3** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 70.7 | 21 | 85.8 | ↗ |
| 2.2 | WORK AND INCLUSION | | 6 | 83.2 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 77.5 | 19 | 75.0 | ↗ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 9.8 | 8 | 86.0 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 76.5 | 7 | 94.1 | – |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 62.6 | 5 | 86.5 | – |
| 2.4 | EQUALITY | | 11 | 82.7 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 28.7 | 12 | 80.7 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 9.1 | 8 | 88.8 | ↘ |
| **3.** | **Environmental transition** | | **6** | **72.2** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 8.8 | 45 | 63.3 | ↑ |
| 3.2 | BIODIVERSITY | | 3 | 94.3 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 89.7 | 8 | 89.7 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 100.0 | 1 | 100.0 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 1.1 | 18 | 92.1 | – |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.3 | 30 | 38.2 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 18.6 | 4 | 93.1 | ↑ |
| **4.** | **Governance transition** | | **4** | **83.8** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 6 | 95.7 | – |
| 4.1.1 | Voice and accountability index (z-score) | 1.6 | 5 | 94.6 | – |
| 4.1.2 | Rule of law index (z-score) | 1.8 | 8 | 96.7 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.0 | 25 | 80.7 | ↘ |
| 4.3 | TRANSPARENCY | | 5 | 71.5 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 88.0 | 1 | 88.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.0 | 14 | 60.5 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 34.2 | 18 | 94.1 | – |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# ESTONIA

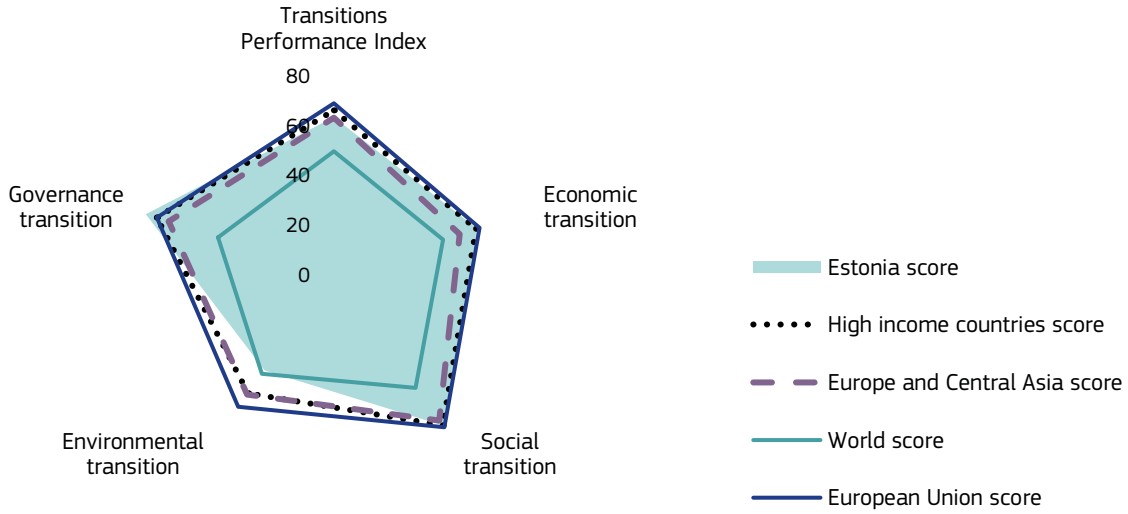
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 1.3 | GDP PER CAPITA (current PPP$) | 35 852.9 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 47.3 | TRADE (% of GDP) | 141.2 |
| SUMMARY INNOVATION INDEX (0-100) | 50.2 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 61.1 |

## RANKS AND SCORES

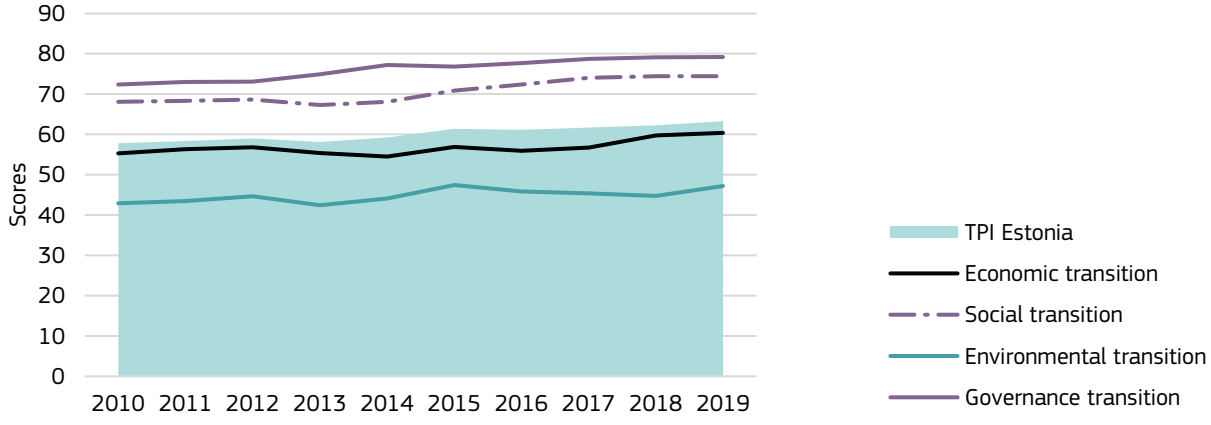
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Estonia ranks** | **27** | **19** | **25** | **53** | **12** |
| Estonia score | 63.3 | 60.4 | 74.4 | 47.2 | 79.2 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# ESTONIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **27** | **63.3** | ↗ |
| **1.** | **Economic transition** | | **19** | **60.4** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 24.1 | 2 | 96.5 | – |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 35 852.9 | 33 | 47.8 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 32 | 34.0 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 63 355.1 | 37 | 42.2 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.3 | 28 | 25.8 | ↓ |
| 1.4 | INDUSTRIAL BASE | | 28 | 50.2 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 12.9 | 35 | 43.0 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.9 | 28 | 60.9 | – |
| **2.** | **Social transition** | | **25** | **74.4** | ↗ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 64.6 | 50 | 65.4 | ↗ |
| 2.2 | WORK AND INCLUSION | | 17 | 76.5 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 79.5 | 9 | 79.0 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 14.8 | 33 | 78.9 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 60.1 | 29 | 66.8 | ↗ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 58.7 | 15 | 79.5 | ↗ |
| 2.4 | EQUALITY | | 18 | 76.7 | ↗ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 30.4 | 17 | 76.9 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 8.1 | 18 | 76.3 | ↑ |
| **3.** | **Environmental transition** | | **53** | **47.2** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 16.0 | 65 | 33.3 | – |
| 3.2 | BIODIVERSITY | | 4 | 93.9 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 94.8 | 4 | 94.8 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 93.5 | 8 | 93.5 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 1.0 | 16 | 93.0 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.0 | 66 | 17.4 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 8.8 | 54 | 44.1 | ↑ |
| **4.** | **Governance transition** | | **12** | **79.2** | ↗ |
| 4.1 | FUNDAMENTAL RIGHTS | | 19 | 89.0 | – |
| 4.1.1 | Voice and accountability index (z-score) | 1.2 | 17 | 88.7 | – |
| 4.1.2 | Rule of law index (z-score) | 1.2 | 21 | 89.3 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 2.1 | 46 | 68.5 | ↑ |
| 4.3 | TRANSPARENCY | | 3 | 73.1 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 73.0 | 17 | 73.0 | ↑ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 2.7 | 1 | 73.2 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 8.4 | 1 | 100.0 | – |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# FINLAND

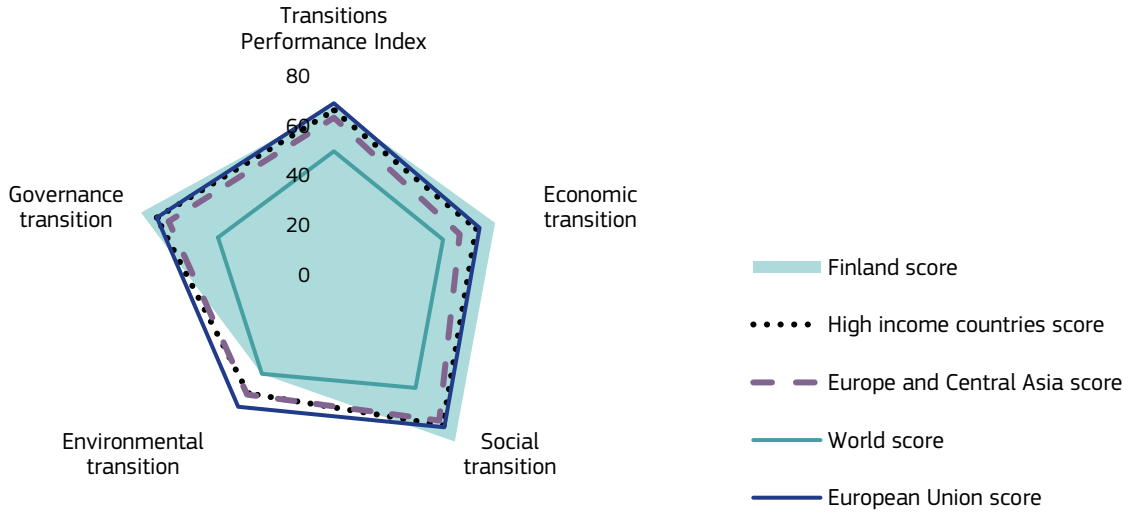
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 5.5 | GDP PER CAPITA (current PPP$) | 47 974.7 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 264.7 | TRADE (% of GDP) | 79.5 |
| SUMMARY INNOVATION INDEX (0-100) | 70.9 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 72.3 |

## RANKS AND SCORES

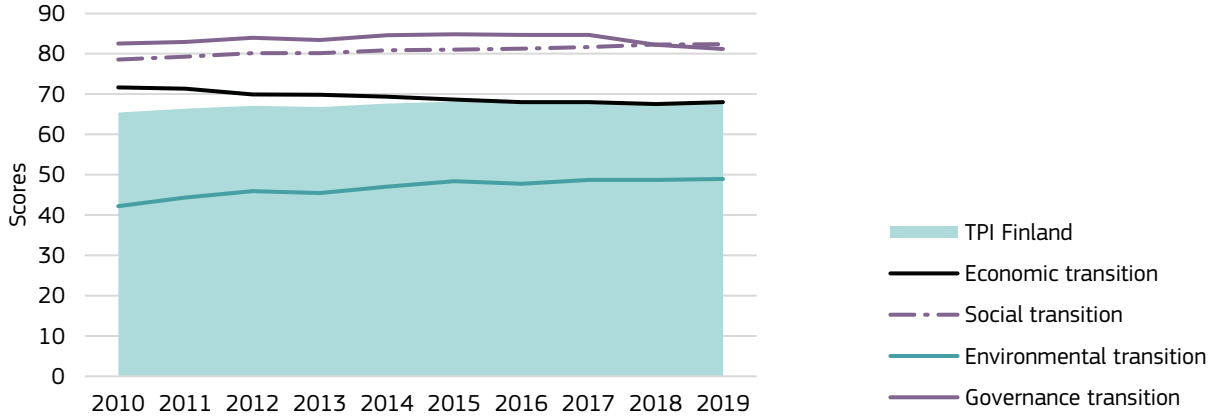
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Finland ranks** | **19** | **10** | **7** | **48** | **9** |
| Finland score | 67.5 | 68.0 | 82.4 | 49.0 | 81.2 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# FINLAND

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **19** | **67.5** | – |
| **1.** | **Economic transition** | | **10** | **68.0** | ↘ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 20.3 | 13 | 81.1 | ↓ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 47 974.7 | 18 | 64.0 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 14 | 58.0 | ↓ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 91 371.6 | 16 | 60.9 | – |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 2.8 | 10 | 55.1 | ↓ |
| 1.4 | INDUSTRIAL BASE | | 11 | 64.2 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 14.4 | 28 | 48.0 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 6.8 | 6 | 88.5 | ↘ |
| **2.** | **Social transition** | | **7** | **82.4** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 69.8 | 27 | 82.6 | ↗ |
| 2.2 | WORK AND INCLUSION | | 20 | 76.1 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 76.3 | 21 | 72.6 | ↗ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 8.3 | 5 | 88.2 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 55.4 | 34 | 58.9 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 60.3 | 12 | 82.4 | ↗ |
| 2.4 | EQUALITY | | 7 | 85.8 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 27.4 | 8 | 83.6 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 9.4 | 6 | 92.5 | – |
| **3.** | **Environmental transition** | | **48** | **49.0** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 10.4 | 54 | 56.7 | ↑ |
| 3.2 | BIODIVERSITY | | 17 | 78.7 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 74.8 | 24 | 74.8 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 74.0 | 23 | 74.0 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 0.6 | 10 | 95.8 | – |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.4 | 56 | 23.1 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 7.5 | 62 | 37.4 | ↑ |
| **4.** | **Governance transition** | | **9** | **81.2** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 2 | 96.3 | – |
| 4.1.1 | Voice and accountability index (z-score) | 1.6 | 4 | 94.7 | – |
| 4.1.2 | Rule of law index (z-score) | 2.0 | 1 | 98.0 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.6 | 42 | 73.2 | ↗ |
| 4.3 | TRANSPARENCY | | 2 | 75.0 | ↓ |
| 4.3.1 | Corruption perceptions index (0-100) | 85.0 | 3 | 85.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 3.2 | 2 | 68.3 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 59.0 | 43 | 78.1 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# FRANCE

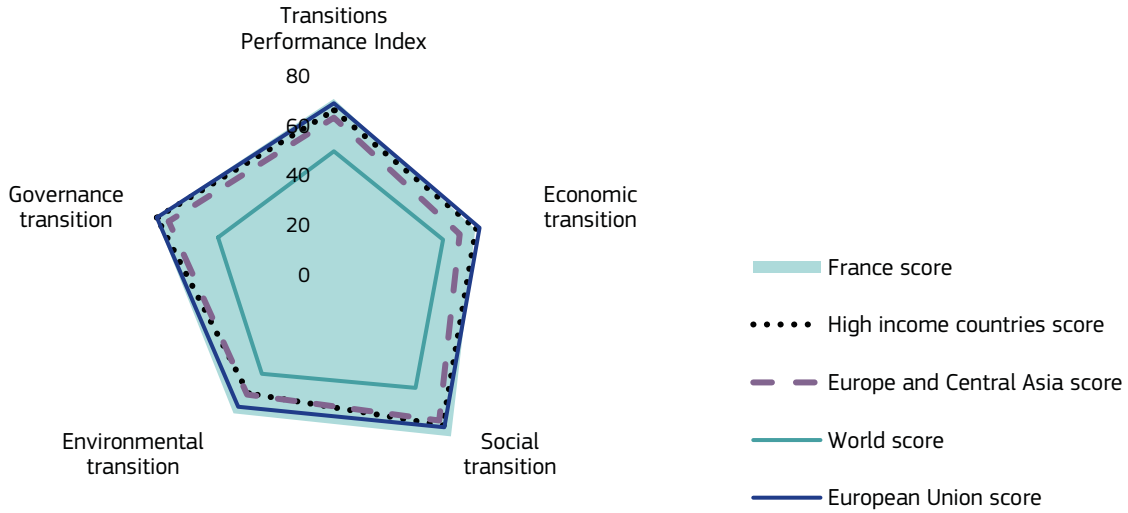
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **64.8** | **GDP PER CAPITA (current PPP$)** | **47 222.6** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **3 061.1** | **TRADE (% of GDP)** | **64.5** |
| **SUMMARY INNOVATION INDEX (0-100)** | **53.0** | **DIGITAL ECONOMY AND SOCIETY INDEX (0-100)** | **52.2** |

## RANKS AND SCORES

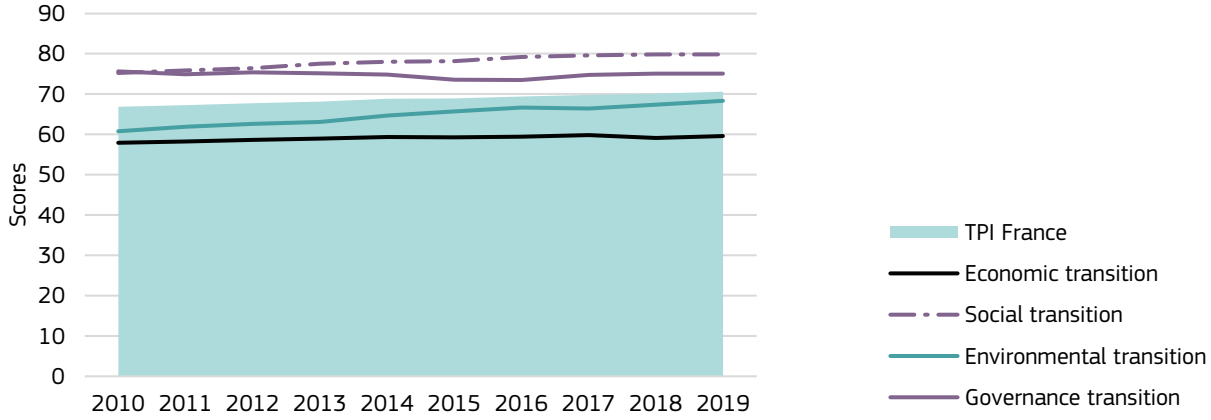
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **France ranks** | **12** | **21** | **12** | **10** | **19** |
| France score | 70.6 | 59.6 | 79.8 | 68.3 | 75.1 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# FRANCE

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **12** | **70.6** | – |
| **1.** | **Economic transition** | | **21** | **59.6** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 17.3 | 27 | 69.3 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 47 222.6 | 20 | 63.0 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 16 | 54.0 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 96 445.6 | 12 | 64.3 | ↗ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 2.2 | 12 | 43.7 | – |
| 1.4 | INDUSTRIAL BASE | | 27 | 51.2 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 9.7 | 57 | 32.3 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 3.5 | 15 | 79.5 | ↘ |
| **2.** | **Social transition** | | **12** | **79.8** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 71.8 | 9 | 89.4 | ↗ |
| 2.2 | WORK AND INCLUSION | | 11 | 79.1 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 71.3 | 37 | 62.6 | ↗ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 9.4 | 7 | 86.6 | – |
| 2.2.3 | Early childhood care and education (%) | 78.2 | 2 | 96.9 | ↗ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 57.7 | 19 | 77.6 | – |
| 2.4 | EQUALITY | | 21 | 74.7 | ↗ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 31.6 | 22 | 74.2 | ↗ |
| 2.4.2 | Income share held by the poorest quintile (%) | 8.1 | 18 | 76.3 | ↗ |
| **3.** | **Environmental transition** | | **10** | **68.3** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 7.2 | 30 | 70.0 | – |
| 3.2 | BIODIVERSITY | | 19 | 78.4 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 80.9 | 18 | 80.9 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 78.0 | 21 | 78.0 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 3.6 | 44 | 74.1 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 3.9 | 10 | 64.8 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 12.0 | 31 | 60.2 | ↑ |
| **4.** | **Governance transition** | | **19** | **75.1** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 17 | 90.3 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 1.2 | 19 | 88.1 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 1.4 | 19 | 92.5 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.2 | 29 | 78.2 | – |
| 4.3 | TRANSPARENCY | | 11 | 64.3 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 72.0 | 20 | 72.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.1 | 17 | 59.1 | – |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 98.4 | 64 | 52.6 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# GERMANY

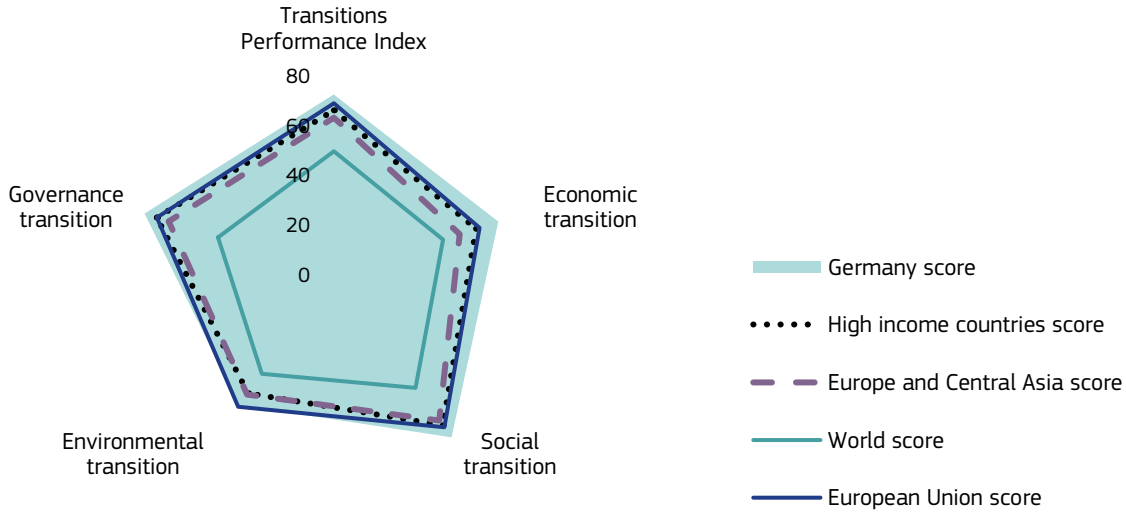
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 83.0 | GDP PER CAPITA (current PPP$) | 53 566.9 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 4 444.4 | TRADE (% of GDP) | 88.1 |
| SUMMARY INNOVATION INDEX (0-100) | 60.8 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 56.1 |

## RANKS AND SCORES

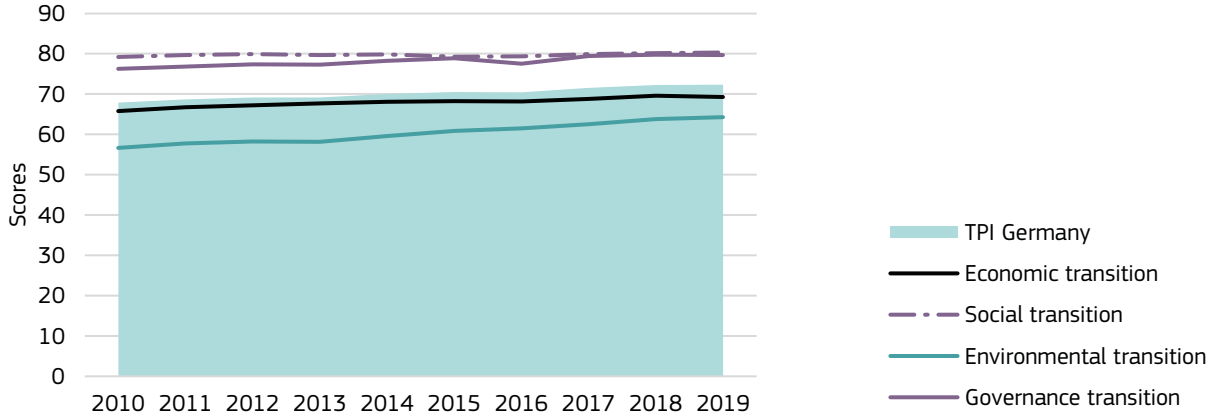
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Germany ranks** | **9** | **8** | **9** | **17** | **11** |
| Germany score | 72.3 | 69.3 | 80.3 | 64.3 | 79.7 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# GERMANY

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **9** | **72.3** | ↗ |
| **1.** | **Economic transition** | | **8** | **69.3** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 17.4 | 26 | 69.5 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 53 566.9 | 13 | 71.4 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 13 | 60.4 | ↗ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 90 491.9 | 18 | 60.3 | ↗ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 3.0 | 8 | 60.4 | ↗ |
| 1.4 | INDUSTRIAL BASE | | 6 | 73.5 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 19.4 | 12 | 64.7 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 6.0 | 8 | 86.7 | ↘ |
| **2.** | **Social transition** | | **9** | **80.3** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 70.2 | 24 | 84.0 | – |
| 2.2 | WORK AND INCLUSION | | 10 | 80.5 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 79.9 | 7 | 79.8 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 11.8 | 18 | 83.2 | – |
| 2.2.3 | Early childhood care and education (%) | 65.9 | 18 | 76.5 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 63.8 | 3 | 88.7 | – |
| 2.4 | EQUALITY | | 23 | 72.7 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 31.9 | 24 | 73.6 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 7.6 | 28 | 70.0 | ↓ |
| **3.** | **Environmental transition** | | **17** | **64.3** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 11.3 | 57 | 52.9 | – |
| 3.2 | BIODIVERSITY | | 20 | 78.0 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 78.3 | 20 | 78.3 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 81.1 | 20 | 81.1 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 4.0 | 45 | 71.2 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 3.4 | 15 | 57.0 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 13.8 | 22 | 69.2 | ↑ |
| **4.** | **Governance transition** | | **11** | **79.7** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 13 | 93.6 | – |
| 4.1.1 | Voice and accountability index (z-score) | 1.4 | 11 | 92.3 | – |
| 4.1.2 | Rule of law index (z-score) | 1.6 | 15 | 94.8 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.9 | 23 | 81.5 | – |
| 4.3 | TRANSPARENCY | | 10 | 65.1 | ↗ |
| 4.3.1 | Corruption perceptions index (0-100) | 80.0 | 11 | 80.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.5 | 25 | 55.1 | ↑ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 61.9 | 47 | 76.2 | ↑ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# GREECE

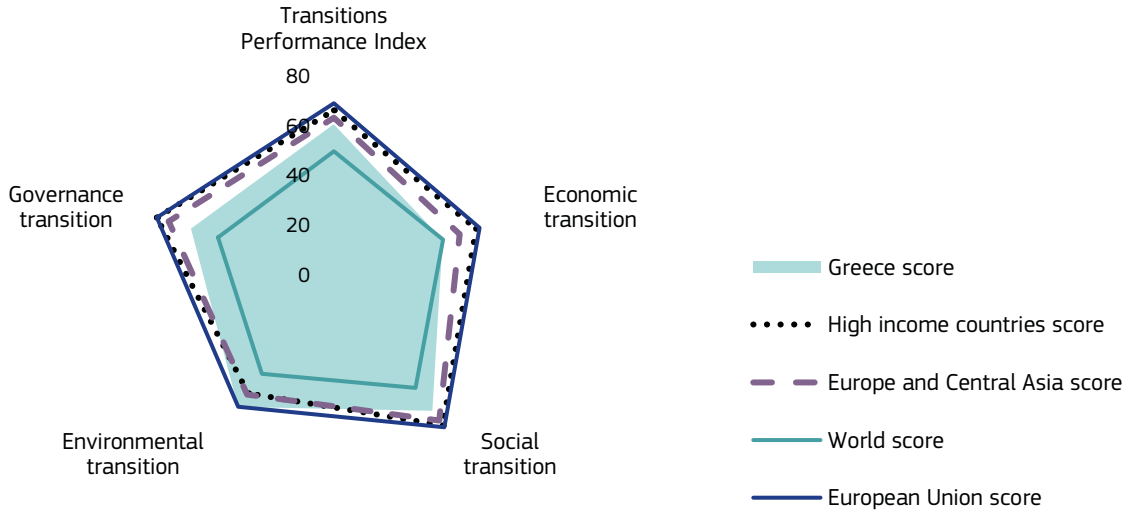
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **10.7** | **GDP PER CAPITA (current PPP$)** | **30 251.9** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **324.1** | **TRADE (% of GDP)** | **74.4** |
| **SUMMARY INNOVATION INDEX (0-100)** | **38.9** | **DIGITAL ECONOMY AND SOCIETY INDEX (0-100)** | **37.3** |

## RANKS AND SCORES

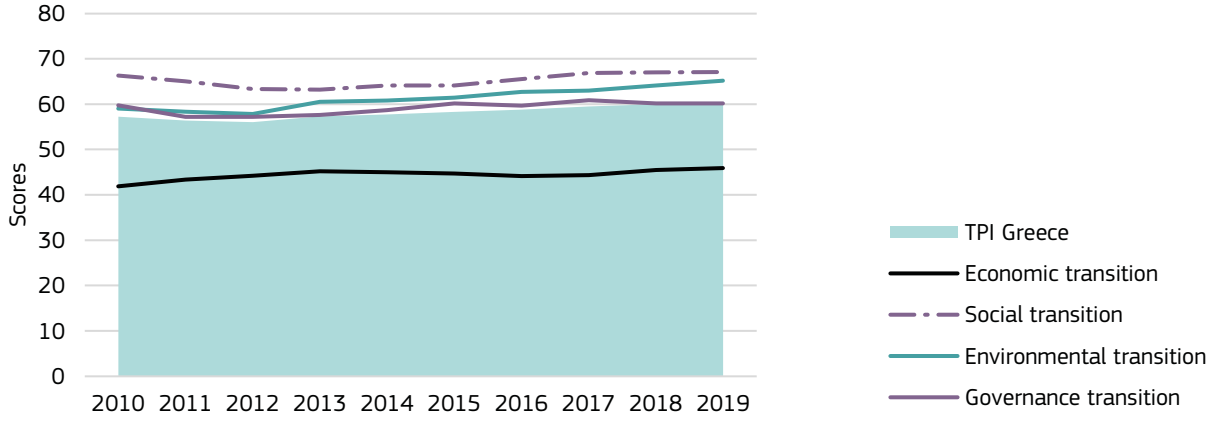
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Greece ranks** | **34** | **41** | **36** | **15** | **45** |
| Greece score | 60.5 | 45.9 | 67.1 | 65.2 | 60.2 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# GREECE

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **34** | **60.5** | – |
| **1.** | **Economic transition** | | **41** | **45.9** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 16.3 | 35 | 65.1 | – |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 30 251.9 | 39 | 40.3 | – |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 31 | 34.6 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 69 816.6 | 30 | 46.5 | ↘ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.1 | 33 | 22.6 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 55 | 38.0 | ↑ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 9.5 | 60 | 31.7 | ↑ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.3 | 38 | 47.5 | ↗ |
| **2.** | **Social transition** | | **36** | **67.1** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 70.5 | 23 | 85.0 | – |
| 2.2 | WORK AND INCLUSION | | 55 | 52.5 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 59.5 | 54 | 39.0 | ↓ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 19.6 | 48 | 72.0 | – |
| 2.2.3 | Early childhood care and education (%) | 44.4 | 55 | 40.6 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 49.2 | 41 | 62.2 | – |
| 2.4 | EQUALITY | | 37 | 65.4 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 34.4 | 35 | 68.0 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 6.6 | 44 | 57.5 | ↘ |
| **3.** | **Environmental transition** | | **15** | **65.2** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 9.2 | 47 | 61.7 | ↗ |
| 3.2 | BIODIVERSITY | | 9 | 85.1 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 85.8 | 11 | 85.8 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 87.2 | 14 | 87.2 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 2.9 | 40 | 79.2 | ↓ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.7 | 22 | 44.9 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 13.8 | 23 | 69.2 | ↗ |
| **4.** | **Governance transition** | | **45** | **60.2** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 36 | 68.3 | ↓ |
| 4.1.1 | Voice and accountability index (z-score) | 0.9 | 31 | 80.4 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 0.2 | 42 | 56.1 | ↓ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.9 | 22 | 81.6 | ↗ |
| 4.3 | TRANSPARENCY | | 42 | 50.6 | ↑ |
| 4.3.1 | Corruption perceptions index (0-100) | 45.0 | 43 | 45.0 | ↑ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.6 | 28 | 54.4 | ↑ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 181.2 | 71 | 0.0 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# HUNGARY

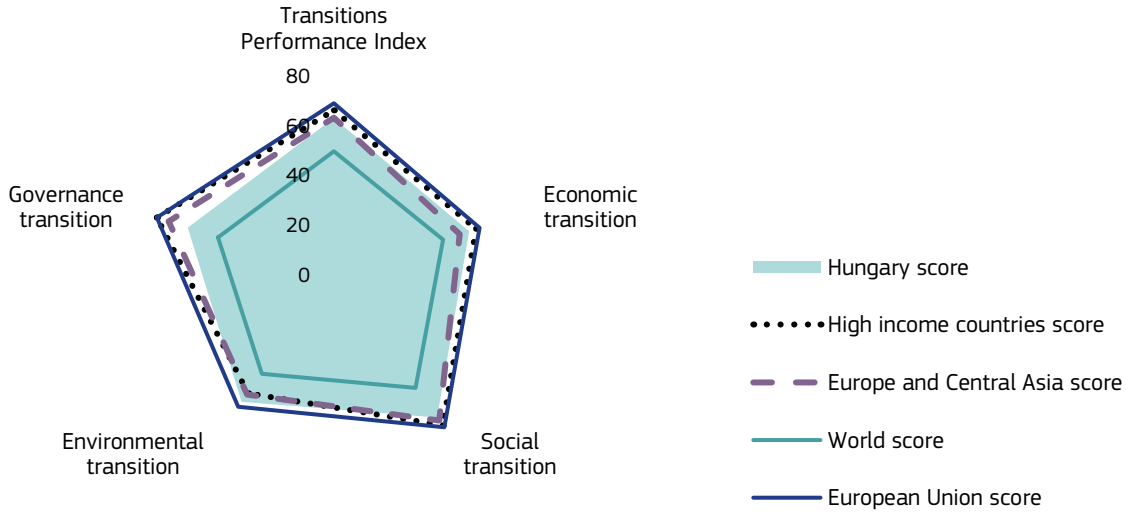
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **9.8** | **GDP PER CAPITA (current PPP$)** | **34 046.2** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **332.2** | **TRADE (% of GDP)** | **163.0** |
| **SUMMARY INNOVATION INDEX (0-100)** | **33.7** | **DIGITAL ECONOMY AND SOCIETY INDEX (0-100)** | **47.5** |

## RANKS AND SCORES

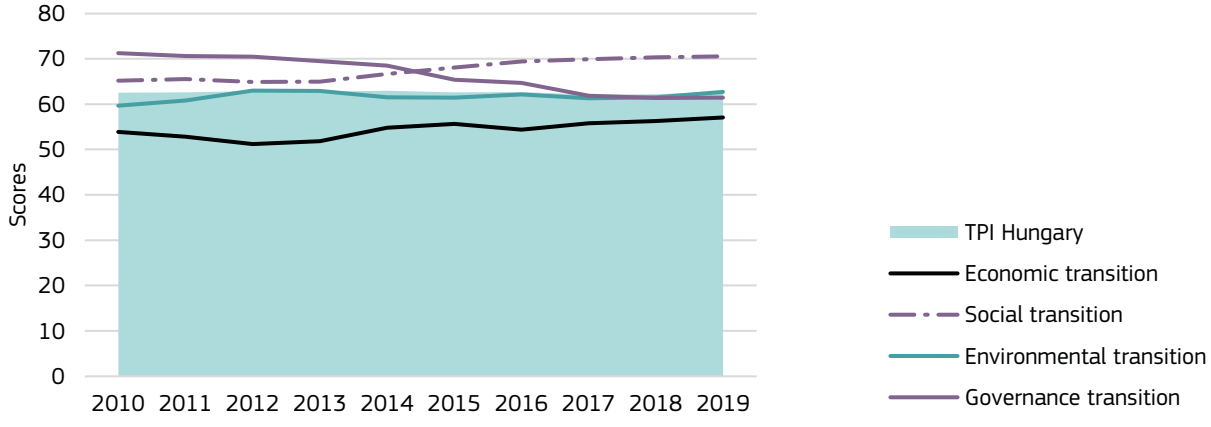
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Hungary ranks** | **28** | **25** | **31** | **21** | **43** |
| Hungary score | 62.8 | 57.1 | 70.5 | 62.7 | 61.4 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# HUNGARY

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **28** | **62.8** | – |
| **1.** | **Economic transition** | | **25** | **57.1** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 20.3 | 12 | 81.4 | – |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 34 046.2 | 34 | 45.4 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 30 | 34.6 | ↗ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 63 435.0 | 36 | 42.3 | ↗ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.3 | 25 | 27.0 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 19 | 55.4 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 18.2 | 17 | 60.7 | – |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.3 | 37 | 47.6 | ↓ |
| **2.** | **Social transition** | | **31** | **70.5** | ↗ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 64.1 | 54 | 63.6 | ↗ |
| 2.2 | WORK AND INCLUSION | | 35 | 68.3 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 74.4 | 27 | 68.8 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 18.5 | 45 | 73.5 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 54.2 | 39 | 56.9 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 54.7 | 31 | 72.1 | ↑ |
| 2.4 | EQUALITY | | 20 | 75.8 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 30.6 | 19 | 76.4 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 7.9 | 22 | 73.8 | ↘ |
| **3.** | **Environmental transition** | | **21** | **62.7** | – |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 6.6 | 28 | 72.5 | – |
| 3.2 | BIODIVERSITY | | 12 | 84.1 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 83.1 | 15 | 83.1 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 84.9 | 16 | 84.9 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 2.2 | 33 | 84.5 | – |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.2 | 33 | 36.5 | ↘ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 11.6 | 35 | 57.8 | ↑ |
| **4.** | **Governance transition** | | **43** | **61.4** | ↓ |
| 4.1 | FUNDAMENTAL RIGHTS | | 37 | 66.8 | ↓ |
| 4.1.1 | Voice and accountability index (z-score) | 0.3 | 43 | 62.5 | ↓ |
| 4.1.2 | Rule of law index (z-score) | 0.6 | 35 | 71.1 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 2.5 | 51 | 65.4 | ↓ |
| 4.3 | TRANSPARENCY | | 44 | 49.0 | ↓ |
| 4.3.1 | Corruption perceptions index (0-100) | 46.0 | 42 | 46.0 | ↓ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.9 | 38 | 51.0 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 70.2 | 52 | 70.8 | ↗ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# IRELAND

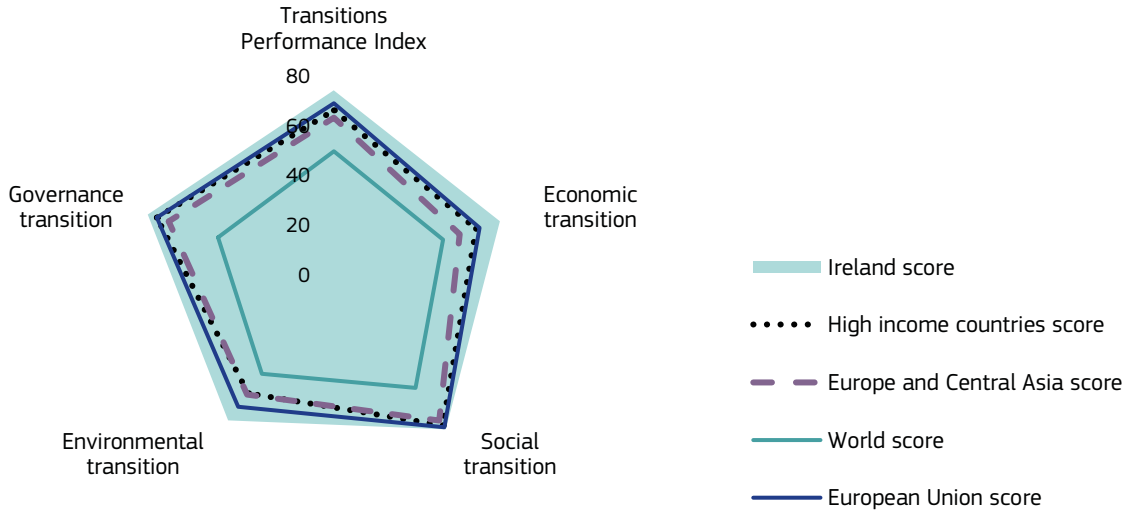
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 4.9 | GDP PER CAPITA (current PPP$) | 83 399.3 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 412.8 | TRADE (% of GDP) | 239.2 |
| SUMMARY INNOVATION INDEX (0-100) | 56.8 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 61.8 |

## RANKS AND SCORES

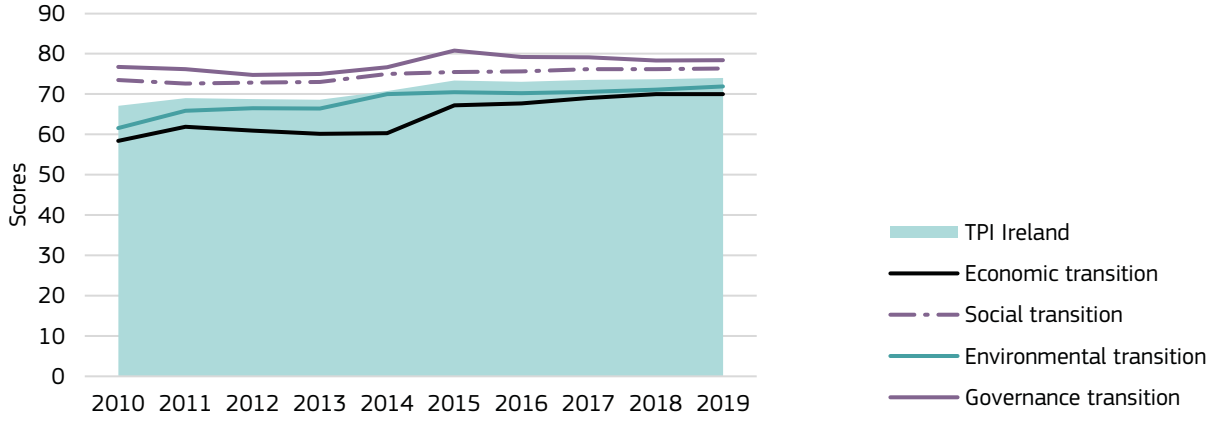
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Ireland ranks** | **5** | **5** | **20** | **7** | **13** |
| Ireland score | 74.0 | 70.0 | 76.3 | 71.9 | 78.4 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# IRELAND

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **5** | **74.0** | ↗ |
| **1.** | **Economic transition** | | **5** | **70.0** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 9.7 | 61 | 38.7 | ↓ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 83 399.3 | 1 | 100.0 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 12 | 60.4 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 155 654.4 | 1 | 100.0 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.0 | 35 | 20.8 | ↓ |
| 1.4 | INDUSTRIAL BASE | | 2 | 87.8 | ↑ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 30.8 | 1 | 100.0 | ↑ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 1.7 | 23 | 69.4 | ↘ |
| **2.** | **Social transition** | | **20** | **76.3** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 71.1 | 17 | 87.0 | – |
| 2.2 | WORK AND INCLUSION | | 24 | 74.5 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 74.1 | 28 | 68.2 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 13.7 | 28 | 80.4 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 65.3 | 20 | 75.4 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 54.7 | 30 | 72.2 | – |
| 2.4 | EQUALITY | | 25 | 72.1 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 32.8 | 27 | 71.6 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 7.9 | 22 | 73.8 | – |
| **3.** | **Environmental transition** | | **7** | **71.9** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 13.3 | 61 | 44.6 | – |
| 3.2 | BIODIVERSITY | | 10 | 84.9 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 87.7 | 9 | 87.7 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 97.7 | 4 | 97.7 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 6.5 | 54 | 53.8 | ↓ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 3.5 | 14 | 58.1 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 30.8 | 1 | 100.0 | ↑ |
| **4.** | **Governance transition** | | **13** | **78.4** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 15 | 91.7 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 1.3 | 16 | 90.6 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 1.5 | 17 | 92.8 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.9 | 19 | 82.6 | – |
| 4.3 | TRANSPARENCY | | 20 | 61.9 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 73.0 | 17 | 73.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.6 | 26 | 54.5 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 63.6 | 48 | 75.1 | ↑ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# ITALY

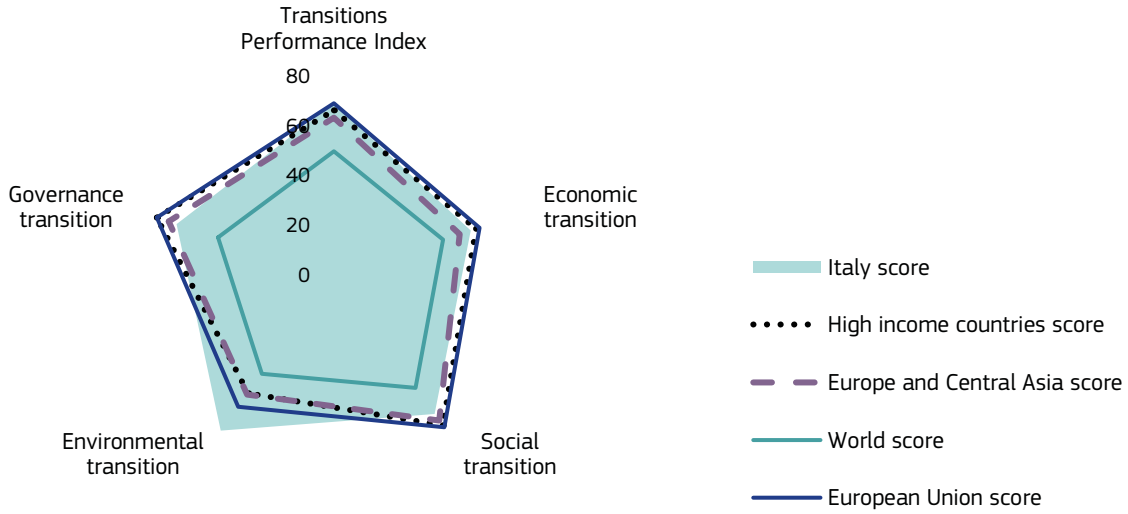
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 60.4 | GDP PER CAPITA (current PPP$) | 40 470.3 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 2 442.8 | TRADE (% of GDP) | 60.1 |
| SUMMARY INNOVATION INDEX (0-100) | 42.0 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 43.6 |

## RANKS AND SCORES

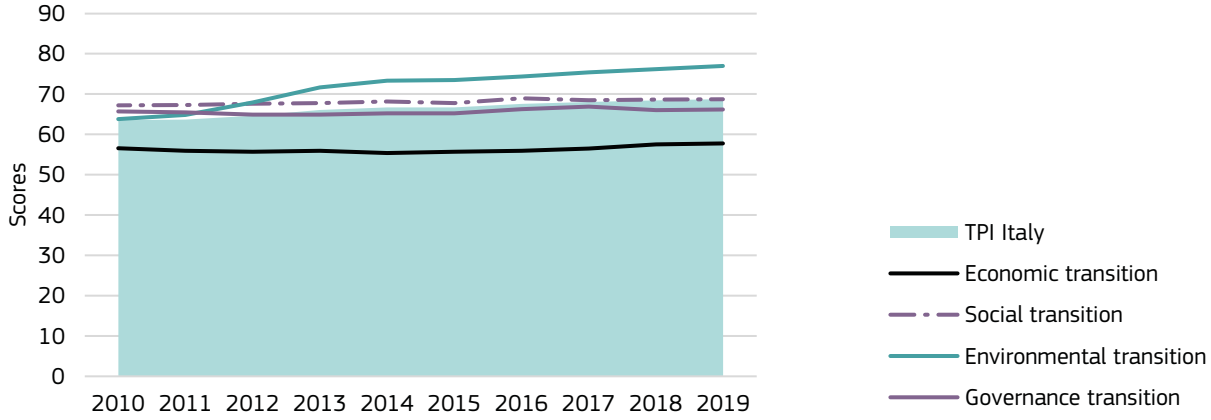
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Italy ranks** | **16** | **24** | **32** | **3** | **37** |
| Italy score | 68.8 | 57.8 | 68.7 | 77.0 | 66.2 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# ITALY

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **16** | **68.8** | ↗ |
| **1.** | **Economic transition** | | **24** | **57.8** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 17.6 | 25 | 70.4 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 40 470.3 | 27 | 54.0 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 22 | 44.3 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 92 296.2 | 15 | 61.5 | ↘ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.4 | 24 | 27.0 | ↗ |
| 1.4 | INDUSTRIAL BASE | | 17 | 56.7 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 14.9 | 26 | 49.7 | – |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 1.4 | 24 | 67.3 | ↘ |
| **2.** | **Social transition** | | **32** | **68.7** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 72.0 | 7 | 89.9 | – |
| 2.2 | WORK AND INCLUSION | | 43 | 61.4 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 63.0 | 51 | 46.0 | ↗ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 19.1 | 47 | 72.8 | ↗ |
| 2.2.3 | Early childhood care and education (%) | 61.8 | 25 | 69.7 | – |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 49.7 | 39 | 63.1 | ↗ |
| 2.4 | EQUALITY | | 48 | 61.0 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 35.9 | 44 | 64.7 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 6.0 | 52 | 50.0 | ↘ |
| **3.** | **Environmental transition** | | **3** | **77.0** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 7.3 | 33 | 69.6 | ↗ |
| 3.2 | BIODIVERSITY | | 21 | 76.2 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 77.9 | 21 | 77.9 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 84.7 | 17 | 84.7 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 6.1 | 52 | 56.1 | ↑ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 5.0 | 5 | 83.1 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 15.8 | 9 | 79.1 | ↑ |
| **4.** | **Governance transition** | | **37** | **66.2** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 33 | 72.5 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 1.0 | 23 | 85.2 | – |
| 4.1.2 | Rule of law index (z-score) | 0.2 | 41 | 59.7 | ↓ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.6 | 9 | 87.5 | – |
| 4.3 | TRANSPARENCY | | 41 | 50.9 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 52.0 | 36 | 52.0 | ↑ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.0 | 42 | 50.1 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 134.8 | 70 | 29.2 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# LATVIA

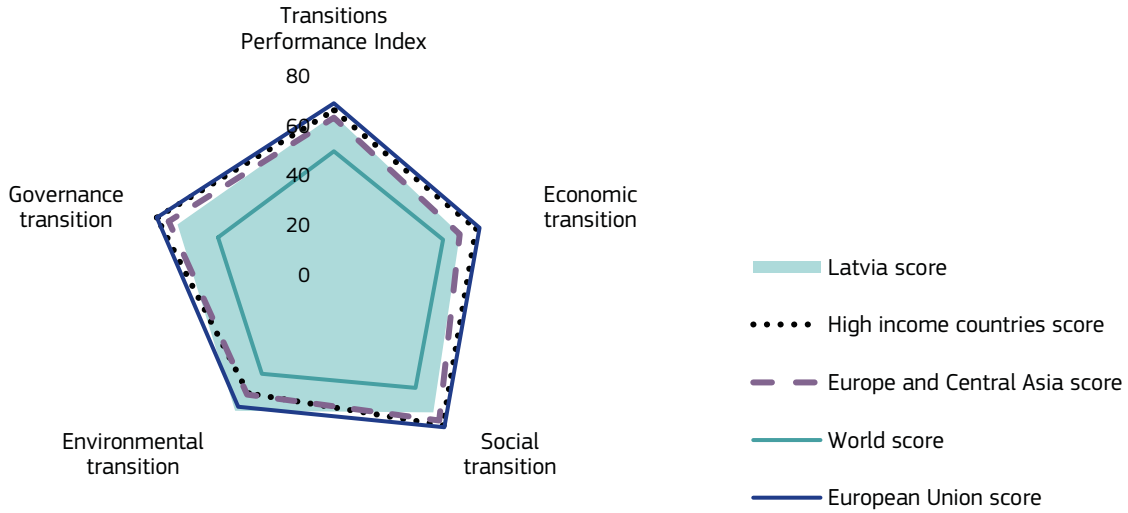
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **1.9** | **GDP PER CAPITA (current PPP$)** | **31 402.3** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **60.6** | **TRADE (% of GDP)** | **119.7** |
| **SUMMARY INNOVATION INDEX (0-100)** | **32.0** | **DIGITAL ECONOMY AND SOCIETY INDEX (0-100)** | **50.7** |

## RANKS AND SCORES

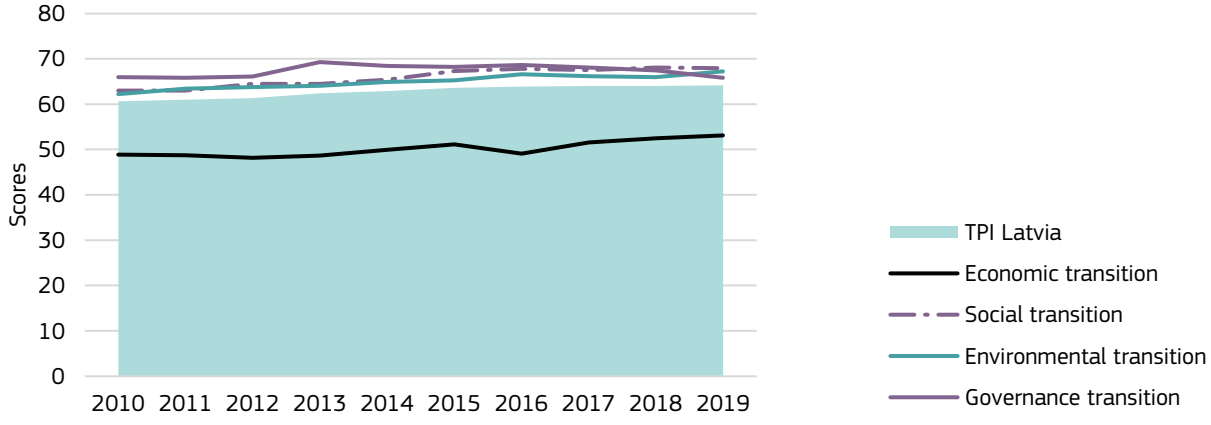
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Latvia ranks** | **23** | **32** | **34** | **11** | **38** |
| Latvia score | 64.2 | 53.1 | 67.9 | 67.2 | 65.8 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# LATVIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **23** | **64.2** | – |
| **1.** | **Economic transition** | | **32** | **53.1** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 23.3 | 3 | 93.0 | – |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 31 402.3 | 38 | 41.9 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 45 | 24.2 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 57 205.8 | 42 | 38.1 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.5 | 57 | 10.2 | ↓ |
| 1.4 | INDUSTRIAL BASE | | 49 | 40.0 | ↓ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 10.2 | 55 | 34.0 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.4 | 36 | 48.9 | ↘ |
| **2.** | **Social transition** | | **34** | **67.9** | ↗ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 62.4 | 60 | 57.9 | ↗ |
| 2.2 | WORK AND INCLUSION | | 18 | 76.5 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 76.8 | 20 | 73.6 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 12.4 | 21 | 82.3 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 62.3 | 24 | 70.5 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 58.6 | 17 | 79.2 | ↗ |
| 2.4 | EQUALITY | | 41 | 63.7 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 35.6 | 42 | 65.3 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 6.7 | 38 | 58.8 | ↗ |
| **3.** | **Environmental transition** | | **11** | **67.2** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 6.1 | 22 | 74.6 | ↘ |
| 3.2 | BIODIVERSITY | | 2 | 96.3 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 97.3 | 3 | 97.3 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 97.5 | 5 | 97.5 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 1.1 | 19 | 91.9 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.2 | 35 | 36.1 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 12.4 | 29 | 61.8 | ↑ |
| **4.** | **Governance transition** | | **38** | **65.8** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 30 | 81.1 | – |
| 4.1.1 | Voice and accountability index (z-score) | 0.8 | 32 | 79.2 | – |
| 4.1.2 | Rule of law index (z-score) | 1.0 | 31 | 83.1 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 4.4 | 59 | 53.5 | ↓ |
| 4.3 | TRANSPARENCY | | 38 | 53.9 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 58.0 | 31 | 58.0 | ↑ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.9 | 37 | 51.1 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 36.4 | 20 | 92.6 | ↗ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# LITHUANIA

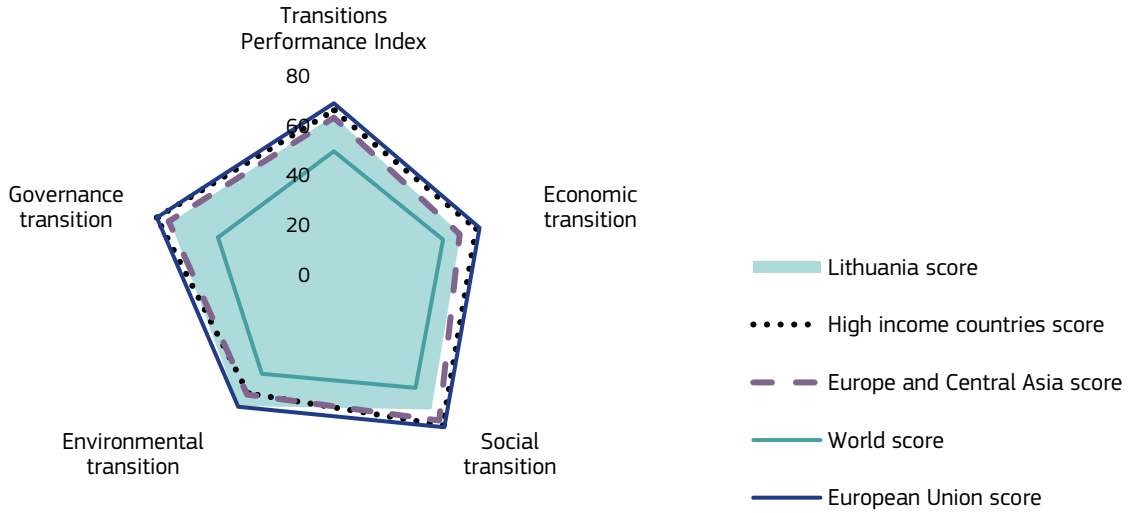
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 2.8 | GDP PER CAPITA (current PPP$) | 36 700.7 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 102.2 | TRADE (% of GDP) | 150.6 |
| SUMMARY INNOVATION INDEX (0-100) | 40.4 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 53.9 |

## RANKS AND SCORES

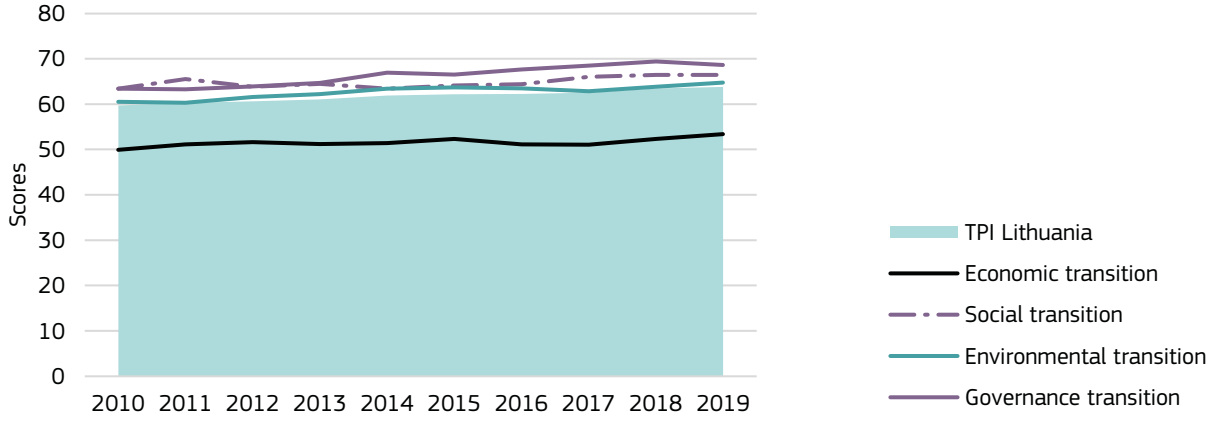
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Lithuania ranks** | **25** | **31** | **37** | **16** | **33** |
| Lithuania score | 63.8 | 53.4 | 66.4 | 64.8 | 68.6 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# LITHUANIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **25** | **63.8** | ↗ |
| **1.** | **Economic transition** | | **31** | **53.4** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 18.1 | 22 | 72.3 | ↓ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 36 700.7 | 31 | 48.9 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 39 | 31.0 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 66 540.6 | 34 | 44.4 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.9 | 40 | 17.7 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 25 | 52.3 | – |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 16.2 | 23 | 54.0 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.4 | 35 | 49.8 | ↑ |
| **2.** | **Social transition** | | **37** | **66.4** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 61.9 | 61 | 56.5 | ↑ |
| 2.2 | WORK AND INCLUSION | | 23 | 74.8 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 77.8 | 18 | 75.6 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 12.4 | 22 | 82.3 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 54.9 | 37 | 58.2 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 60.4 | 11 | 82.6 | ↗ |
| 2.4 | EQUALITY | | 49 | 59.6 | ↓ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 37.3 | 49 | 61.6 | ↓ |
| 2.4.2 | Income share held by the poorest quintile (%) | 6.3 | 48 | 53.8 | ↘ |
| **3.** | **Environmental transition** | | **16** | **64.8** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 7.3 | 33 | 69.6 | ↘ |
| 3.2 | BIODIVERSITY | | 5 | 92.3 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 90.5 | 7 | 90.5 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 95.2 | 6 | 95.2 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 1.4 | 21 | 90.0 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.1 | 37 | 34.3 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 12.6 | 27 | 62.9 | ↑ |
| **4.** | **Governance transition** | | **33** | **68.6** | ↗ |
| 4.1 | FUNDAMENTAL RIGHTS | | 28 | 82.6 | – |
| 4.1.1 | Voice and accountability index (z-score) | 0.9 | 29 | 82.2 | – |
| 4.1.2 | Rule of law index (z-score) | 1.0 | 30 | 83.1 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 4.6 | 61 | 52.4 | ↑ |
| 4.3 | TRANSPARENCY | | 19 | 62.3 | ↗ |
| 4.3.1 | Corruption perceptions index (0-100) | 59.0 | 28 | 59.0 | ↗ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 3.6 | 7 | 64.5 | ↗ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 34.1 | 17 | 94.1 | – |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# LUXEMBOURG

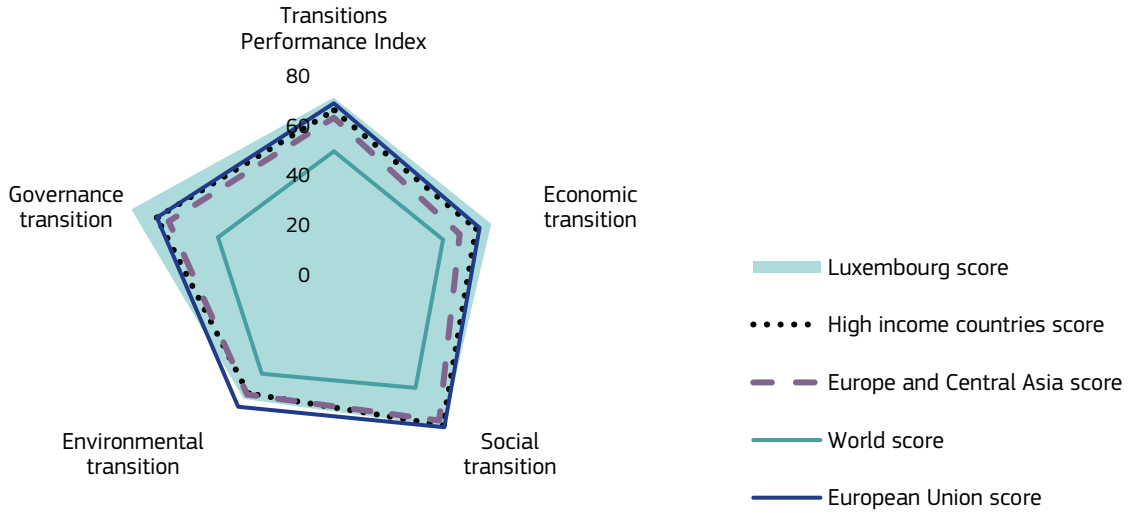
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **0.6** | **GDP PER CAPITA (current PPP$)** | **108 950.7** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **66.8** | **TRADE (% of GDP)** | **381.5** |
| **SUMMARY INNOVATION INDEX (0-100)** | **63.9** | **DIGITAL ECONOMY AND SOCIETY INDEX (0-100)** | **57.9** |

## RANKS AND SCORES

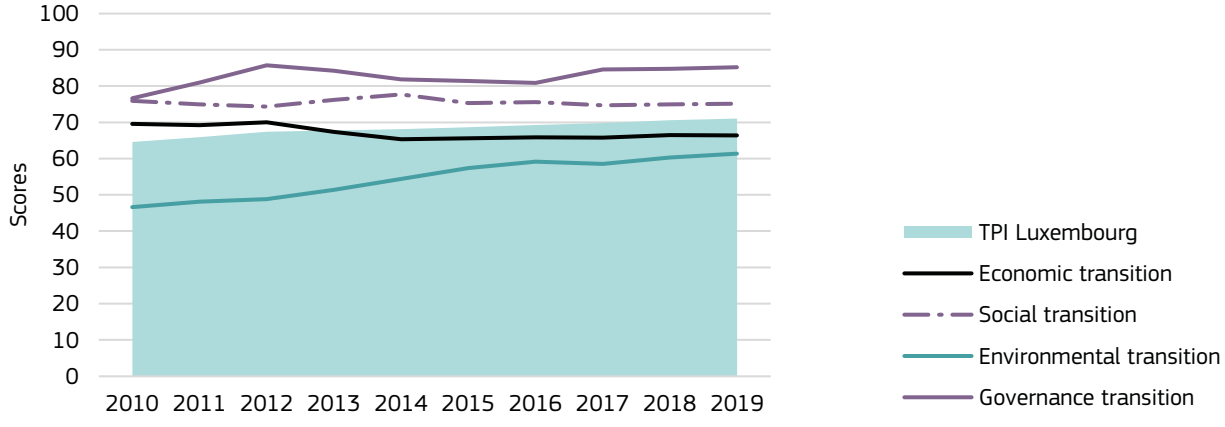
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Luxembourg ranks** | **10** | **13** | **23** | **26** | **3** |
| Luxembourg score | 71.1 | 66.3 | 75.1 | 61.3 | 85.2 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# LUXEMBOURG

| | | 2019 VALUE | 2019 RANK | 2019 SCORE | 2010-2019 SCORE PROGRESS |
|---|---|---|---|---|---|
| **TRANSITIONS PERFORMANCE INDEX** | | | **10** | **71.1** | ↗ |
| **1.** | **Economic transition** | | **13** | **66.3** | ↘ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 16.7 | 32 | 66.7 | ↓ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 108 950.7 | 1 | 100.0 | – |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 10 | 62.6 | ↘ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 199 367.5 | 1 | 100.0 | – |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.3 | 30 | 25.1 | ↓ |
| 1.4 | INDUSTRIAL BASE | | 37 | 46.1 | – |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 4.6 | 71 | 15.3 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 9.0 | 3 | 92.2 | ↗ |
| **2.** | **Social transition** | | **23** | **75.1** | ↘ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 71.1 | 18 | 87.0 | – |
| 2.2 | WORK AND INCLUSION | | 12 | 78.2 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 72.1 | 36 | 64.2 | – |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 10.5 | 11 | 85.1 | ↑ |
| 2.2.3 | Early childhood care and education (%) | 75.4 | 9 | 92.3 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 57.0 | 21 | 76.4 | – |
| 2.4 | EQUALITY | | 39 | 64.2 | ↓ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 34.9 | 40 | 66.9 | ↓ |
| 2.4.2 | Income share held by the poorest quintile (%) | 6.5 | 45 | 56.3 | ↓ |
| **3.** | **Environmental transition** | | **26** | **61.3** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 20.0 | 70 | 16.7 | ↗ |
| 3.2 | BIODIVERSITY | | 30 | 64.2 | ↑ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 83.3 | 14 | 83.3 | ↑ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 37.1 | 41 | 37.1 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 2.8 | 39 | 80.1 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 4.8 | 6 | 80.5 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 16.8 | 7 | 83.8 | ↑ |
| **4.** | **Governance transition** | | **3** | **85.2** | ↗ |
| 4.1 | FUNDAMENTAL RIGHTS | | 8 | 95.3 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 1.6 | 8 | 94.1 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 1.8 | 10 | 96.5 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.3 | 3 | 91.9 | ↑ |
| 4.3 | TRANSPARENCY | | 15 | 63.5 | ↗ |
| 4.3.1 | Corruption perceptions index (0-100) | 81.0 | 9 | 81.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.8 | 34 | 51.8 | ↑ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 21.0 | 1 | 100.0 | – |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# MALTA

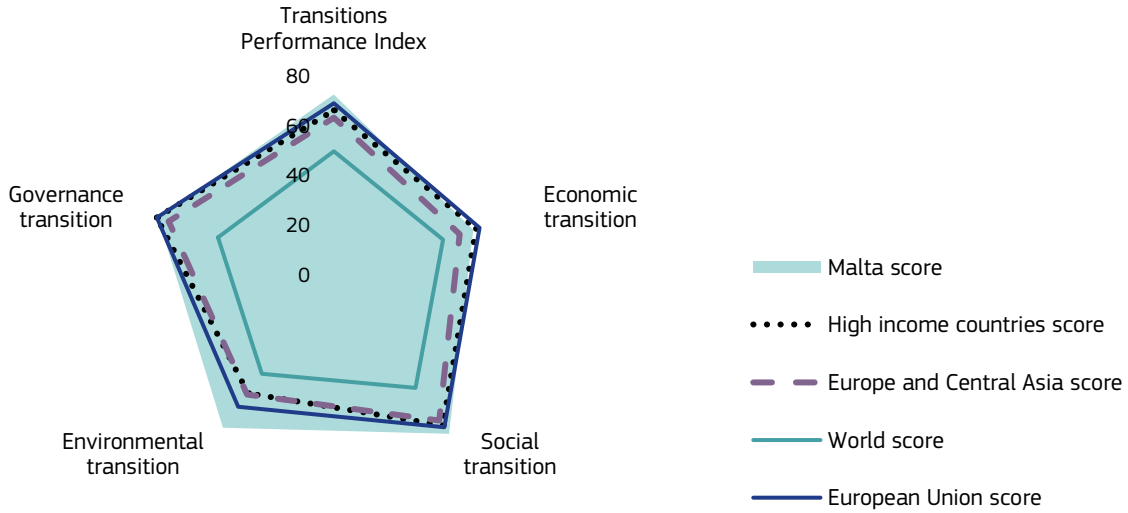
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 0.5 | GDP PER CAPITA (current PPP$) | 47 405.0 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 23.0 | TRADE (% of GDP) | 261.0 |
| SUMMARY INNOVATION INDEX (0-100) | 42.6 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 62.7 |

## RANKS AND SCORES

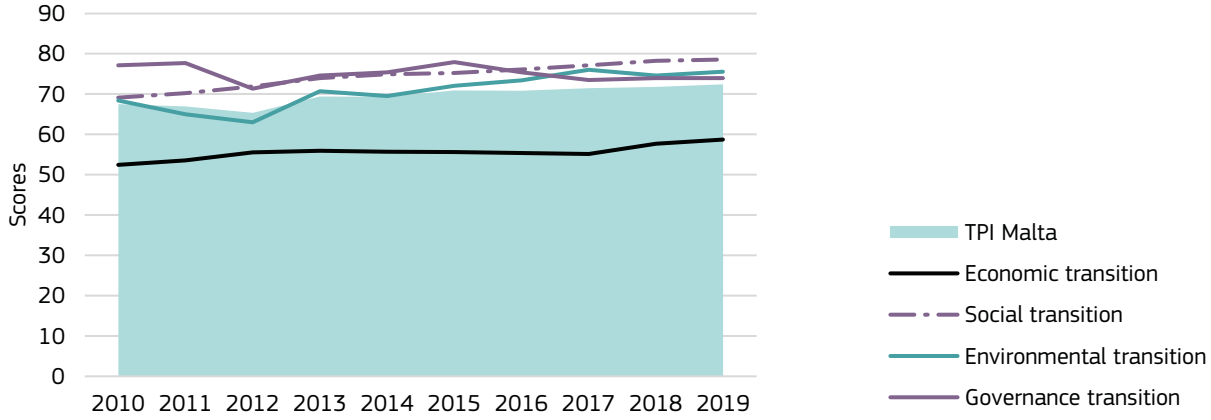
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Malta ranks** | **8** | **23** | **16** | **4** | **22** |
| Malta score | 72.4 | 58.7 | 78.6 | 75.6 | 74.0 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# MALTA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **8** | **72.4** | ↗ |
| **1.** | **Economic transition** | | **23** | **58.7** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 20.8 | 11 | 83.0 | – |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 47 405.0 | 19 | 63.2 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 33 | 33.9 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 85 556.4 | 20 | 57.0 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.5 | 55 | 10.8 | ↓ |
| 1.4 | INDUSTRIAL BASE | | 33 | 48.0 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 7.2 | 66 | 24.0 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 4.9 | 10 | 84.1 | ↑ |
| **2.** | **Social transition** | | **16** | **78.6** | ↑ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 71.3 | 16 | 87.7 | – |
| 2.2 | WORK AND INCLUSION | | 26 | 72.8 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 75.5 | 24 | 71.0 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 24.0 | 56 | 65.7 | ↑ |
| 2.2.3 | Early childhood care and education (%) | 74.6 | 10 | 90.9 | ↗ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 53.7 | 33 | 70.4 | ↑ |
| 2.4 | EQUALITY | | 14 | 80.0 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 29.2 | 14 | 79.6 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 8.5 | 14 | 81.3 | – |
| **3.** | **Environmental transition** | | **4** | **75.6** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 5.5 | 17 | 77.1 | ↑ |
| 3.2 | BIODIVERSITY | | 29 | 66.2 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 99.3 | 1 | 99.3 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | N/A | N/A | N/A | ↑ |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 15.4 | 64 | 0.0 | ↗ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 3.5 | 12 | 58.9 | ↓ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 28.7 | 1 | 100.0 | ↑ |
| **4.** | **Governance transition** | | **22** | **74.0** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 22 | 86.2 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 1.1 | 20 | 86.9 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 1.1 | 26 | 85.4 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.6 | 41 | 73.6 | ↘ |
| 4.3 | TRANSPARENCY | | 28 | 58.0 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 54.0 | 35 | 54.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 3.9 | 12 | 60.6 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 45.8 | 29 | 86.6 | ↑ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# NETHERLANDS

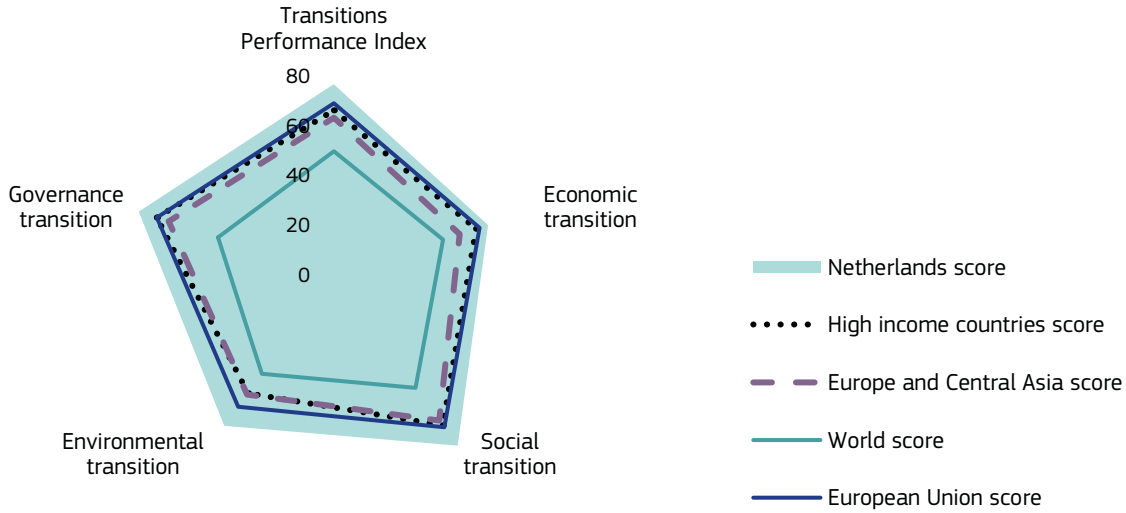
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 17.2 | GDP PER CAPITA (current PPP$) | 58 340.7 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 1 005.3 | TRADE (% of GDP) | 154.3 |
| SUMMARY INNOVATION INDEX (0-100) | 64.8 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 67.7 |

## RANKS AND SCORES

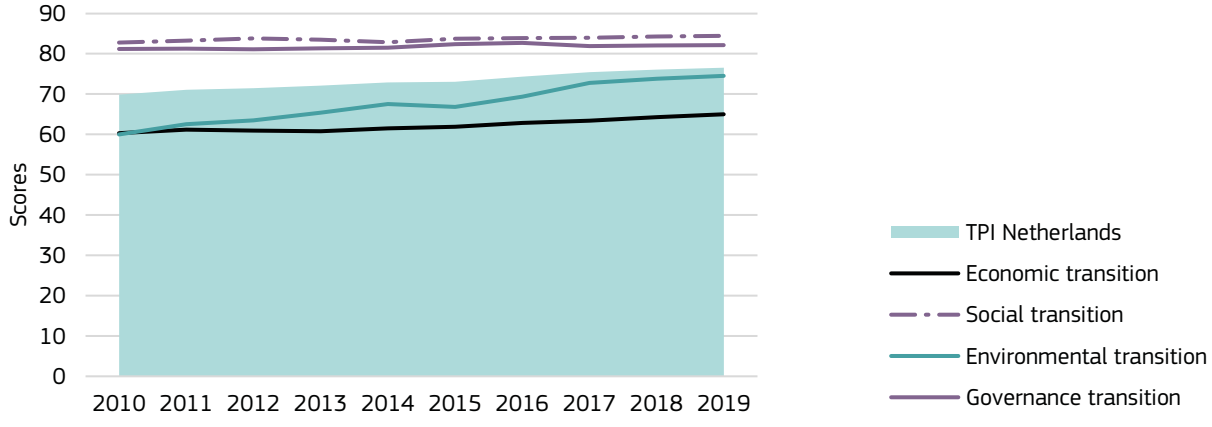
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Netherlands ranks** | **3** | **17** | **4** | **5** | **7** |
| Netherlands score | 76.5 | 65.0 | 84.5 | 74.5 | 82.1 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# NETHERLANDS

| | | 2019 VALUE | 2019 RANK | 2019 SCORE | 2010-2019 SCORE PROGRESS |
|---|---|---|---|---|---|
| **TRANSITIONS PERFORMANCE INDEX** | | | **3** | **76.5** | ↗ |
| **1.** | **Economic transition** | | **17** | **65.0** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 18.3 | 21 | 73.2 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 58 340.7 | 8 | 77.8 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 17 | 52.4 | ↗ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 97 622.5 | 10 | 65.1 | ↗ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 2.0 | 17 | 39.8 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 18 | 56.7 | – |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 11.0 | 52 | 36.7 | – |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 6.0 | 9 | 86.6 | – |
| **2.** | **Social transition** | | **4** | **84.5** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 71.3 | 15 | 87.7 | – |
| 2.2 | WORK AND INCLUSION | | 7 | 83.0 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 79.2 | 10 | 78.4 | ↗ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 12.8 | 25 | 81.7 | – |
| 2.2.3 | Early childhood care and education (%) | 76.9 | 5 | 94.8 | – |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 62.4 | 6 | 86.1 | – |
| 2.4 | EQUALITY | | 12 | 82.1 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 28.5 | 11 | 81.1 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 8.8 | 11 | 85.0 | ↘ |
| **3.** | **Environmental transition** | | **5** | **74.5** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 12.0 | 59 | 50.0 | ↑ |
| 3.2 | BIODIVERSITY | | 14 | 82.3 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 90.6 | 6 | 90.6 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 93.4 | 9 | 93.4 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 7.9 | 57 | 43.6 | ↑ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 6.2 | 1 | 100.0 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 13.2 | 24 | 65.8 | ↑ |
| **4.** | **Governance transition** | | **7** | **82.1** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 7 | 95.5 | – |
| 4.1.1 | Voice and accountability index (z-score) | 1.6 | 7 | 94.5 | – |
| 4.1.2 | Rule of law index (z-score) | 1.8 | 9 | 96.5 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.6 | 11 | 87.2 | – |
| 4.3 | TRANSPARENCY | | 14 | 63.6 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 82.0 | 8 | 82.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.9 | 36 | 51.4 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 52.4 | 36 | 82.3 | – |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# POLAND

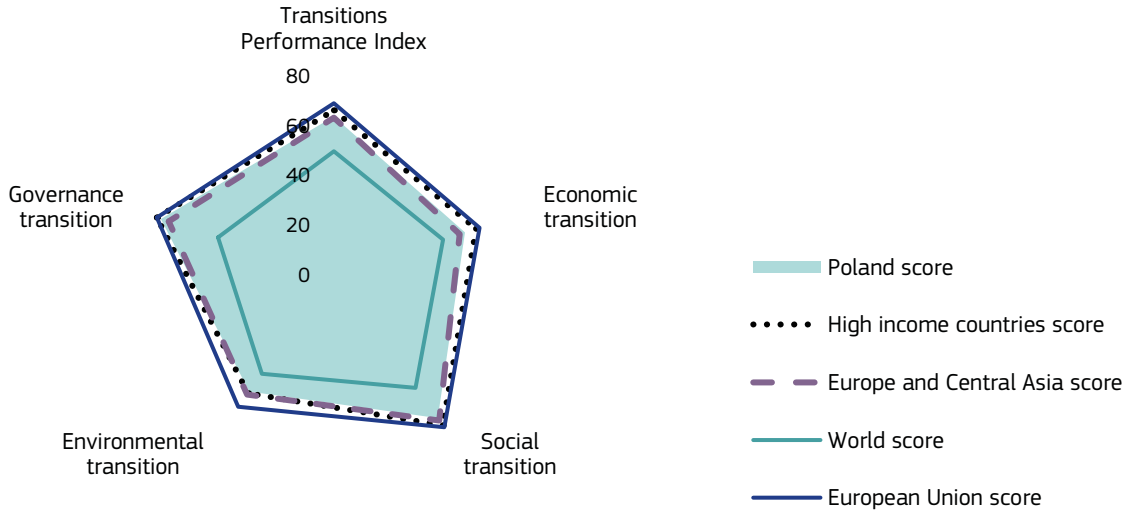
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 38.0 | GDP PER CAPITA (current PPP$) | 33 890.6 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 1 286.9 | TRADE (% of GDP) | 106.2 |
| SUMMARY INNOVATION INDEX (0-100) | 29.9 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 45.0 |

## RANKS AND SCORES

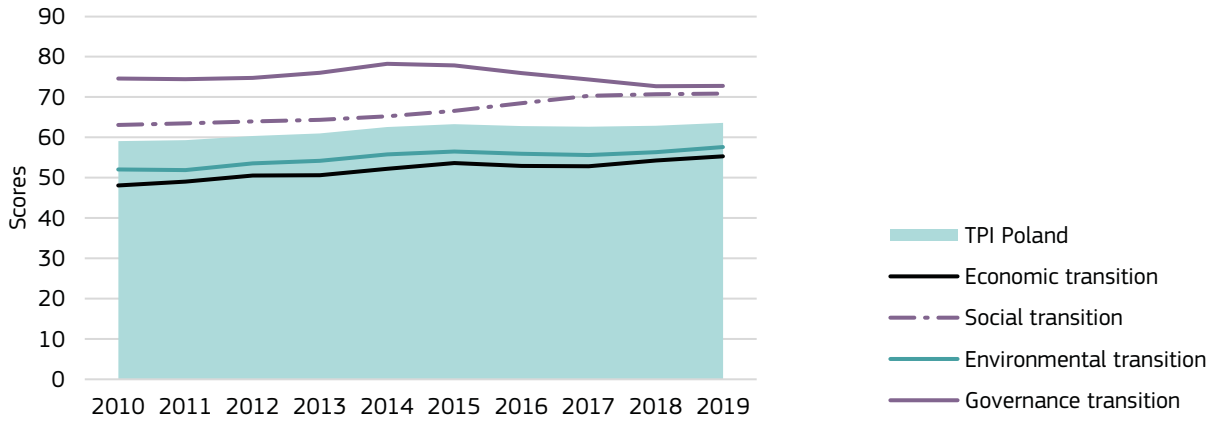
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Poland ranks** | **26** | **27** | **30** | **32** | **26** |
| Poland score | 63.6 | 55.3 | 70.8 | 57.6 | 72.8 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# POLAND

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **26** | **63.6** | ↗ |
| **1.** | **Economic transition** | | **27** | **55.3** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 19.7 | 15 | 79.0 | – |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 33 890.6 | 35 | 45.2 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 37 | 31.8 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 64 487.2 | 35 | 43.0 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.0 | 36 | 20.7 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 24 | 54.0 | ↗ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 16.8 | 20 | 56.0 | ↗ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.4 | 33 | 50.9 | ↗ |
| **2.** | **Social transition** | | **30** | **70.8** | ↗ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 65.4 | 43 | 67.9 | ↗ |
| 2.2 | WORK AND INCLUSION | | 40 | 64.1 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 72.2 | 35 | 64.4 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 17.9 | 43 | 74.5 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 45.6 | 53 | 42.6 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 52.3 | 35 | 67.8 | ↗ |
| 2.4 | EQUALITY | | 15 | 78.5 | ↗ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 29.7 | 15 | 78.4 | ↗ |
| 2.4.2 | Income share held by the poorest quintile (%) | 8.3 | 16 | 78.8 | ↑ |
| **3.** | **Environmental transition** | | **32** | **57.6** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 11.0 | 56 | 54.2 | ↘ |
| 3.2 | BIODIVERSITY | | 8 | 88.6 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 87.6 | 10 | 87.6 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 91.8 | 12 | 91.8 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 2.2 | 34 | 84.1 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.8 | 50 | 29.2 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 11.7 | 34 | 58.4 | ↑ |
| **4.** | **Governance transition** | | **26** | **72.8** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 35 | 71.6 | ↓ |
| 4.1.1 | Voice and accountability index (z-score) | 0.7 | 34 | 76.5 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 0.4 | 37 | 66.6 | ↓ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.7 | 16 | 84.8 | – |
| 4.3 | TRANSPARENCY | | 29 | 58.0 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 60.0 | 26 | 60.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.3 | 23 | 56.6 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 48.9 | 31 | 84.6 | – |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# PORTUGAL

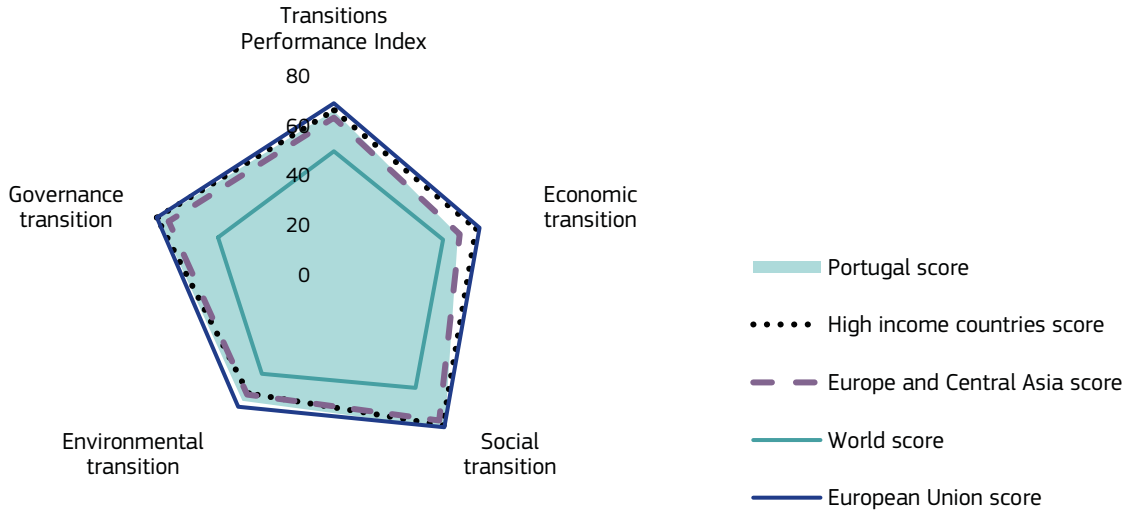
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 10.3 | GDP PER CAPITA (current PPP$) | 33 665.4 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 345.6 | TRADE (% of GDP) | 87.6 |
| SUMMARY INNOVATION INDEX (0-100) | 49.0 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 49.6 |

## RANKS AND SCORES

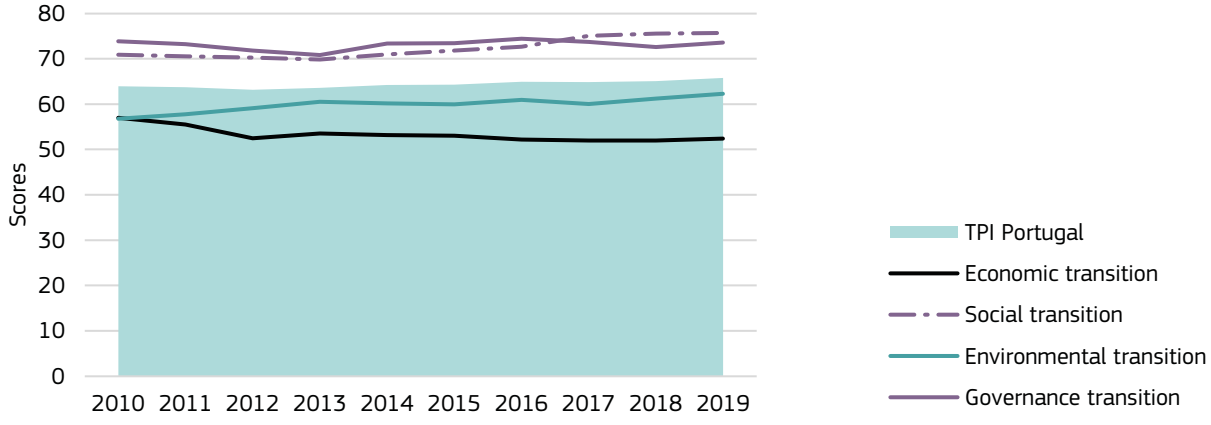
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Portugal ranks** | **20** | **35** | **22** | **22** | **25** |
| Portugal score | 65.8 | 52.4 | 75.7 | 62.2 | 73.6 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# PORTUGAL

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **20** | **65.8** | – |
| **1.** | **Economic transition** | | **35** | **52.4** | ↘ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 19.0 | 19 | 75.9 | ↓ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 33 665.4 | 36 | 44.9 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 35 | 33.6 | ↘ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 61 356.7 | 38 | 40.9 | – |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.3 | 26 | 26.3 | ↓ |
| 1.4 | INDUSTRIAL BASE | | 36 | 46.4 | ↗ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 11.7 | 45 | 39.0 | – |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.7 | 30 | 57.4 | ↑ |
| **2.** | **Social transition** | | **22** | **75.7** | ↗ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 70.0 | 26 | 83.5 | – |
| 2.2 | WORK AND INCLUSION | | 19 | 76.4 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 75.4 | 25 | 70.8 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 11.3 | 16 | 83.8 | – |
| 2.2.3 | Early childhood care and education (%) | 63.8 | 21 | 73.0 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 57.4 | 20 | 77.1 | – |
| 2.4 | EQUALITY | | 32 | 68.9 | ↗ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 33.8 | 32 | 69.3 | ↗ |
| 2.4.2 | Income share held by the poorest quintile (%) | 7.4 | 31 | 67.5 | ↗ |
| **3.** | **Environmental transition** | | **22** | **62.2** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 7.2 | 30 | 70.0 | ↘ |
| 3.2 | BIODIVERSITY | | 26 | 67.4 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 74.1 | 26 | 74.1 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 64.0 | 29 | 64.0 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 5.4 | 49 | 61.1 | ↑ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.0 | 38 | 33.0 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 15.7 | 11 | 78.6 | ↑ |
| **4.** | **Governance transition** | | **25** | **73.6** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 21 | 87.9 | – |
| 4.1.1 | Voice and accountability index (z-score) | 1.2 | 18 | 88.6 | – |
| 4.1.2 | Rule of law index (z-score) | 1.1 | 23 | 87.3 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.8 | 18 | 83.9 | ↗ |
| 4.3 | TRANSPARENCY | | 24 | 61.0 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 64.0 | 24 | 64.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.1 | 18 | 59.0 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 122.2 | 69 | 37.3 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# ROMANIA

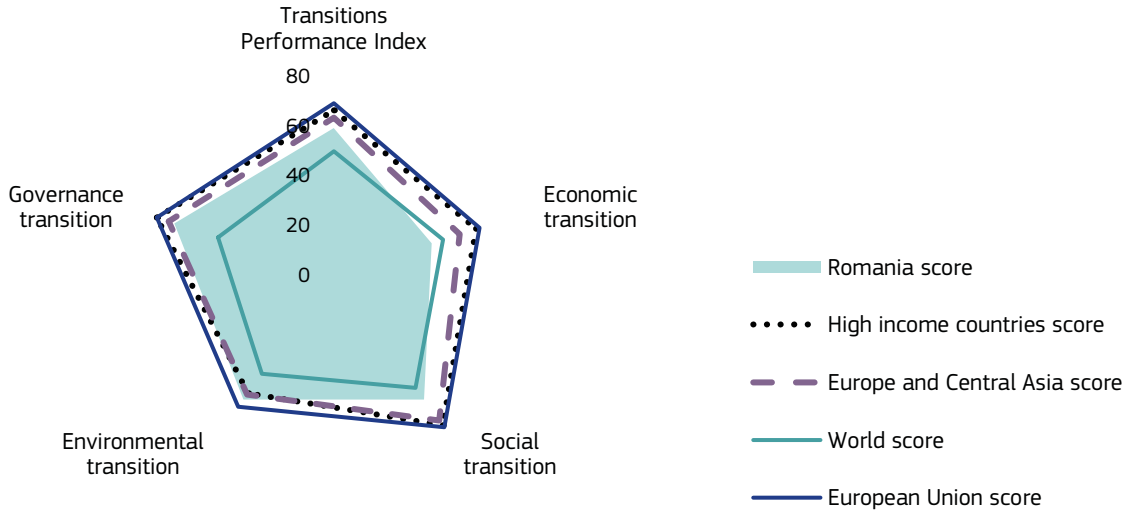
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **19.5** | **GDP PER CAPITA (current PPP$)** | **27 997.9** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **546.6** | **TRADE (% of GDP)** | **84.6** |
| **SUMMARY INNOVATION INDEX (0-100)** | **16.0** | **DIGITAL ECONOMY AND SOCIETY INDEX (0-100)** | **40.0** |

## RANKS AND SCORES

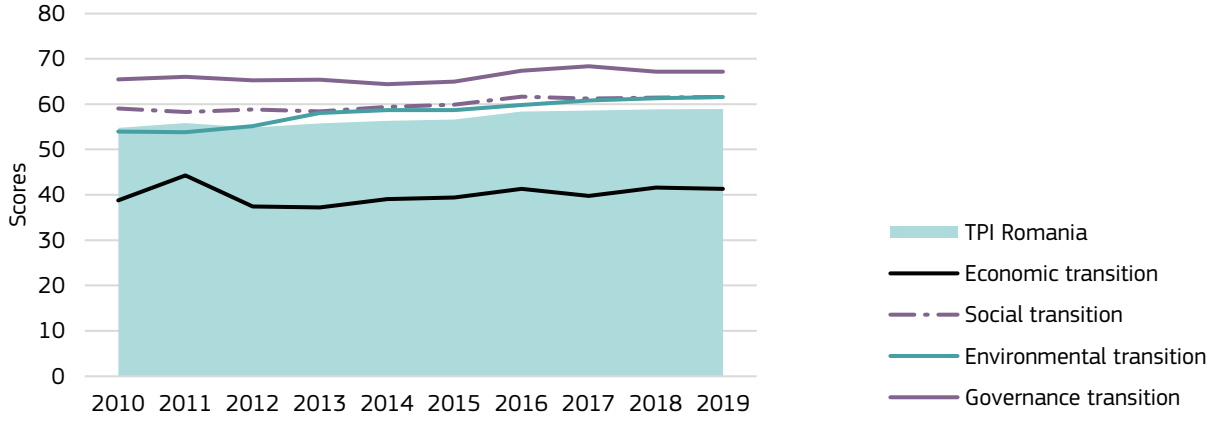
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Romania ranks** | **35** | **47** | **45** | **25** | **34** |
| Romania score | 58.9 | 41.3 | 61.6 | 61.6 | 67.1 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# ROMANIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **35** | **58.9** | ↗ |
| **1.** | **Economic transition** | | **47** | **41.3** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 12.3 | 50 | 49.0 | ↗ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 27 997.9 | 42 | 37.3 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 44 | 24.4 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 58 003.5 | 41 | 38.7 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.5 | 58 | 10.1 | ↗ |
| 1.4 | INDUSTRIAL BASE | | 34 | 47.5 | ↓ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 17.1 | 19 | 57.0 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.1 | 52 | 33.2 | ↑ |
| **2.** | **Social transition** | | **45** | **61.6** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 63.7 | 56 | 62.4 | ↗ |
| 2.2 | WORK AND INCLUSION | | 42 | 62.3 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 69.9 | 39 | 59.8 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 20.1 | 50 | 71.3 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 49.6 | 48 | 49.3 | ↗ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 50.8 | 37 | 65.1 | ↗ |
| 2.4 | EQUALITY | | 50 | 58.6 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 36.0 | 45 | 64.4 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 5.3 | 62 | 41.3 | ↓ |
| **3.** | **Environmental transition** | | **25** | **61.6** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 5.9 | 21 | 75.4 | – |
| 3.2 | BIODIVERSITY | | 22 | 76.2 | ↗ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 77.3 | 22 | 77.3 | ↑ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 65.9 | 28 | 65.9 | ↗ |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 0.8 | 13 | 94.5 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.2 | 61 | 20.3 | – |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 14.9 | 14 | 74.5 | ↑ |
| **4.** | **Governance transition** | | **34** | **67.1** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 39 | 65.2 | ↗ |
| 4.1.1 | Voice and accountability index (z-score) | 0.5 | 39 | 67.6 | – |
| 4.1.2 | Rule of law index (z-score) | 0.3 | 39 | 62.8 | ↑ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.3 | 35 | 77.2 | – |
| 4.3 | TRANSPARENCY | | 43 | 50.2 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 47.0 | 40 | 47.0 | ↗ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.8 | 33 | 52.4 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 35.0 | 19 | 93.5 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# SLOVAKIA

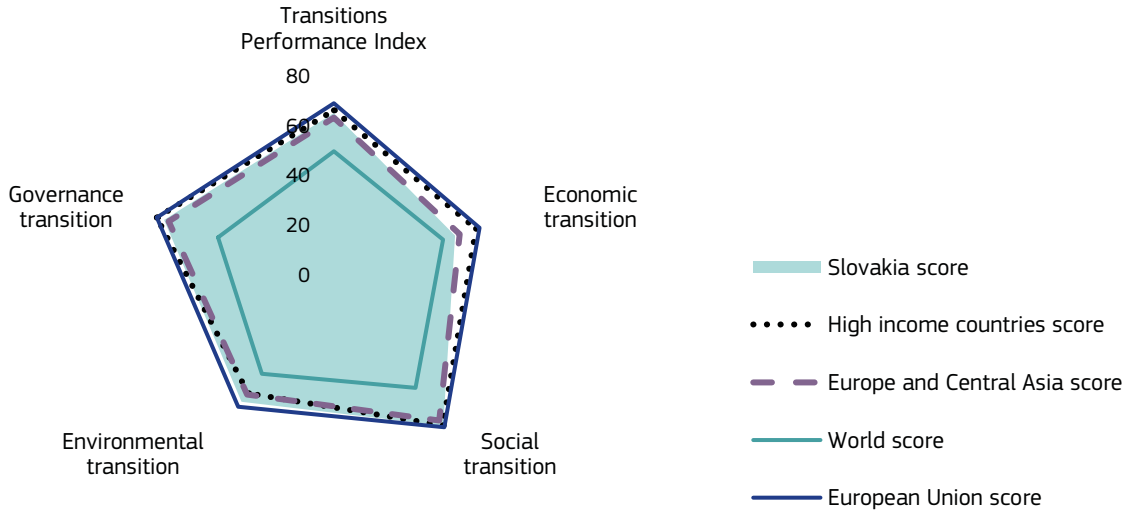
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 5.5 | GDP PER CAPITA (current PPP$) | 36 640.2 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 199.7 | TRADE (% of GDP) | 185.2 |
| SUMMARY INNOVATION INDEX (0-100) | 33.8 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 45.2 |

## RANKS AND SCORES

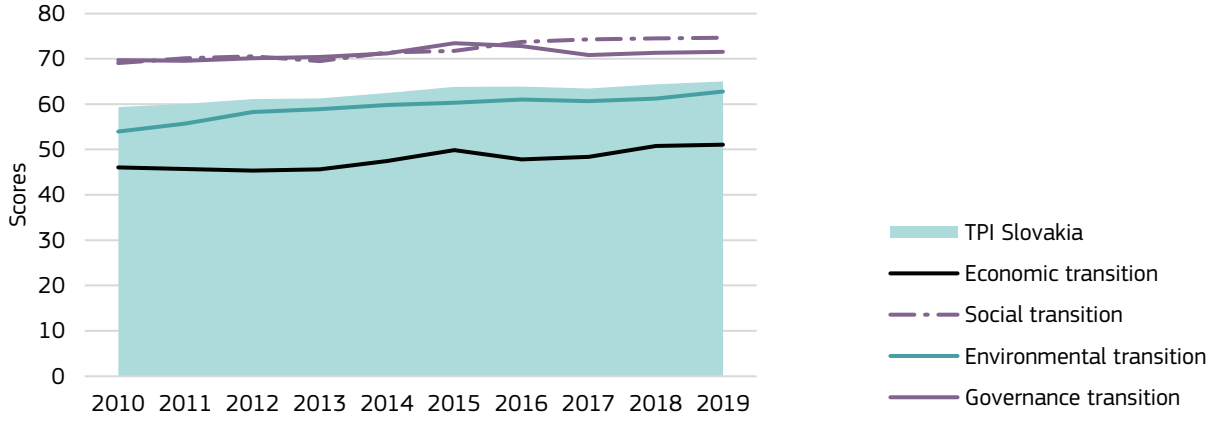
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Slovakia ranks** | **21** | **36** | **24** | **20** | **29** |
| Slovakia score | 65.0 | 51.1 | 74.6 | 62.7 | 71.5 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# SLOVAKIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **21** | **65.0** | ↗ |
| **1.** | **Economic transition** | | **36** | **51.1** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 15.4 | 39 | 61.5 | – |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 36 640.2 | 32 | 48.9 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 38 | 31.4 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 67 618.3 | 33 | 45.1 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.9 | 41 | 17.7 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 21 | 55.3 | – |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 19.0 | 15 | 63.3 | – |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.2 | 40 | 43.2 | ↘ |
| **2.** | **Social transition** | | **24** | **74.6** | ↗ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 65.3 | 46 | 67.5 | ↗ |
| 2.2 | WORK AND INCLUSION | | 41 | 62.9 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 72.4 | 33 | 64.8 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 15.8 | 35 | 77.4 | – |
| 2.2.3 | Early childhood care and education (%) | 38.1 | 61 | 30.2 | – |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 55.1 | 27 | 73.0 | ↗ |
| 2.4 | EQUALITY | | 5 | 87.3 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 25.2 | 3 | 88.4 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 8.7 | 12 | 83.8 | – |
| **3.** | **Environmental transition** | | **20** | **62.7** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 8.0 | 39 | 66.7 | – |
| 3.2 | BIODIVERSITY | | 13 | 83.9 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 82.7 | 16 | 82.7 | ↗ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 81.5 | 19 | 81.5 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 1.3 | 20 | 90.9 | – |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.7 | 20 | 45.3 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 11.0 | 39 | 55.2 | ↑ |
| **4.** | **Governance transition** | | **29** | **71.5** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 32 | 75.6 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 0.9 | 30 | 81.0 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 0.5 | 36 | 70.2 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.1 | 27 | 79.0 | – |
| 4.3 | TRANSPARENCY | | 32 | 55.8 | ↗ |
| 4.3.1 | Corruption perceptions index (0-100) | 50.0 | 37 | 50.0 | ↗ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.0 | 16 | 59.6 | ↗ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 49.4 | 32 | 84.3 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# SLOVENIA

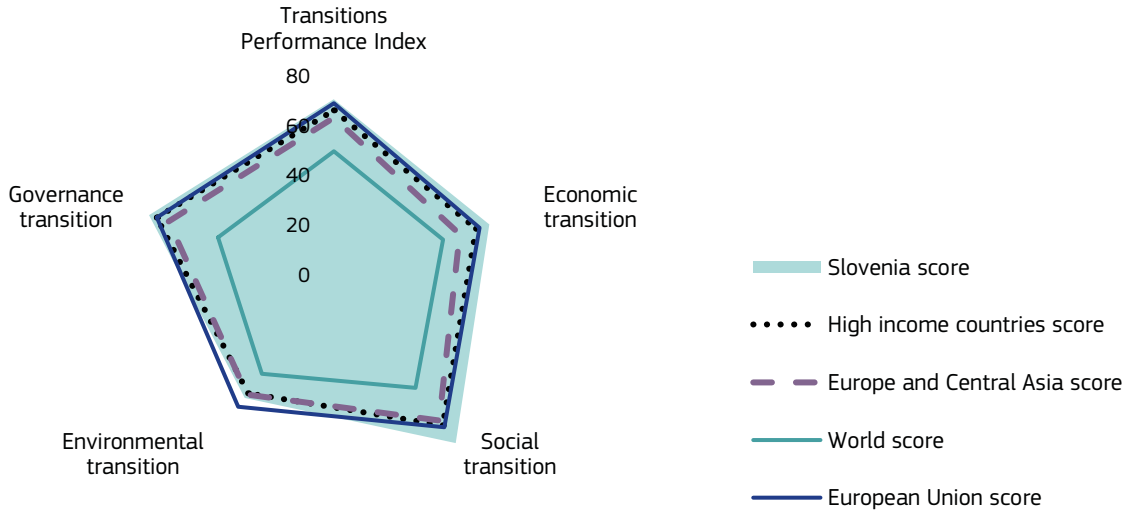
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 2.1 | GDP PER CAPITA (current PPP$) | 38 462.4 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 79.6 | TRADE (% of GDP) | 159.7 |
| SUMMARY INNOVATION INDEX (0-100) | 43.1 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 51.2 |

## RANKS AND SCORES

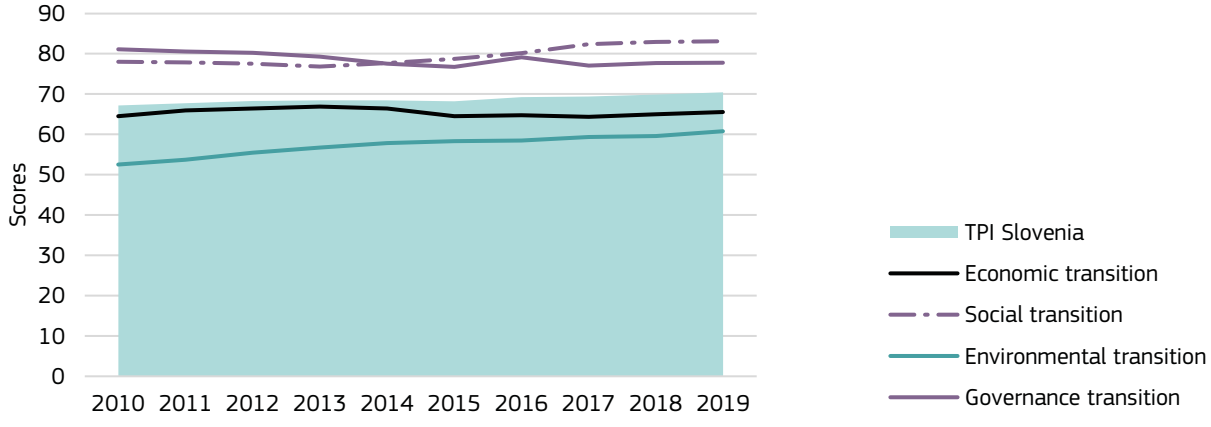
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Slovenia ranks** | **13** | **15** | **6** | **27** | **16** |
| Slovenia score | 70.4 | 65.5 | 83.1 | 60.8 | 77.8 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# SLOVENIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **13** | **70.4** | – |
| **1.** | **Economic transition** | | **15** | **65.5** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 22.3 | 5 | 89.2 | ↓ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 38 462.4 | 30 | 51.3 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 25 | 42.3 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 70 977.7 | 29 | 47.3 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.9 | 19 | 37.3 | ↘ |
| 1.4 | INDUSTRIAL BASE | | 9 | 66.8 | – |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 20.2 | 10 | 67.3 | ↑ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 1.3 | 25 | 66.1 | ↘ |
| **2.** | **Social transition** | | **6** | **83.1** | ↗ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 68.3 | 28 | 77.8 | ↗ |
| 2.2 | WORK AND INCLUSION | | 14 | 77.4 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 75.4 | 25 | 70.8 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 10.6 | 12 | 84.8 | – |
| 2.2.3 | Early childhood care and education (%) | 65.6 | 19 | 75.9 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 58.0 | 18 | 78.2 | ↗ |
| 2.4 | EQUALITY | | 1 | 93.0 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 24.2 | 1 | 90.7 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 10.0 | 1 | 100.0 | – |
| **3.** | **Environmental transition** | | **27** | **60.8** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 8.5 | 42 | 64.6 | ↗ |
| 3.2 | BIODIVERSITY | | 18 | 78.5 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 85.1 | 12 | 85.1 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 77.5 | 22 | 77.5 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 4.6 | 46 | 67.4 | – |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.7 | 23 | 44.4 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 11.1 | 37 | 55.5 | ↑ |
| **4.** | **Governance transition** | | **16** | **77.8** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 24 | 84.7 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 1.0 | 27 | 83.9 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 1.1 | 25 | 85.5 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.5 | 7 | 89.1 | – |
| 4.3 | TRANSPARENCY | | 22 | 61.8 | ↓ |
| 4.3.1 | Corruption perceptions index (0-100) | 60.0 | 26 | 60.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 3.7 | 8 | 63.0 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 70.4 | 53 | 70.7 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# SPAIN

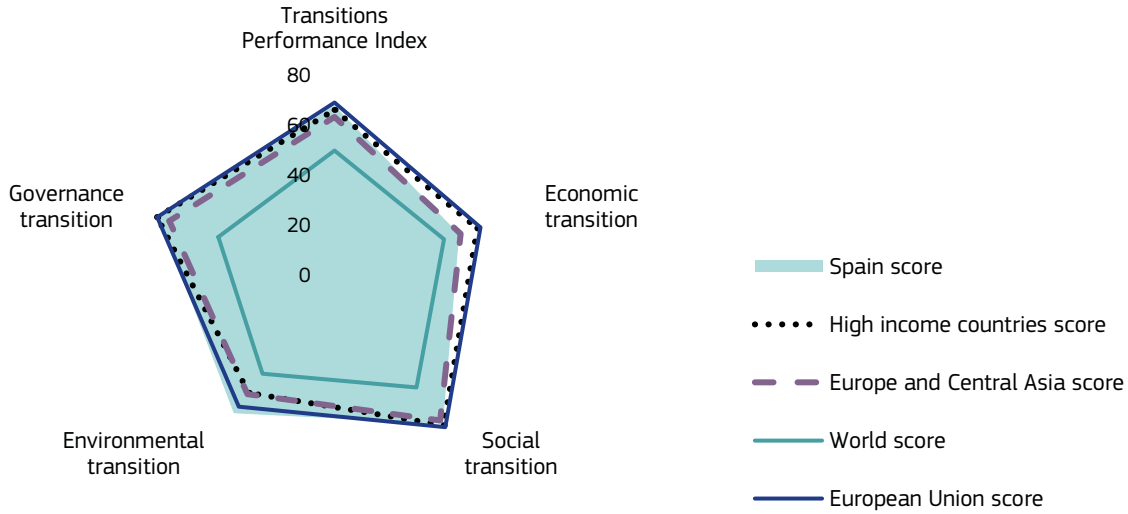
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 46.7 | GDP PER CAPITA (current PPP$) | 41 592.3 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 1 940.5 | TRADE (% of GDP) | 66.9 |
| SUMMARY INNOVATION INDEX (0-100) | 43.2 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 57.5 |

## RANKS AND SCORES

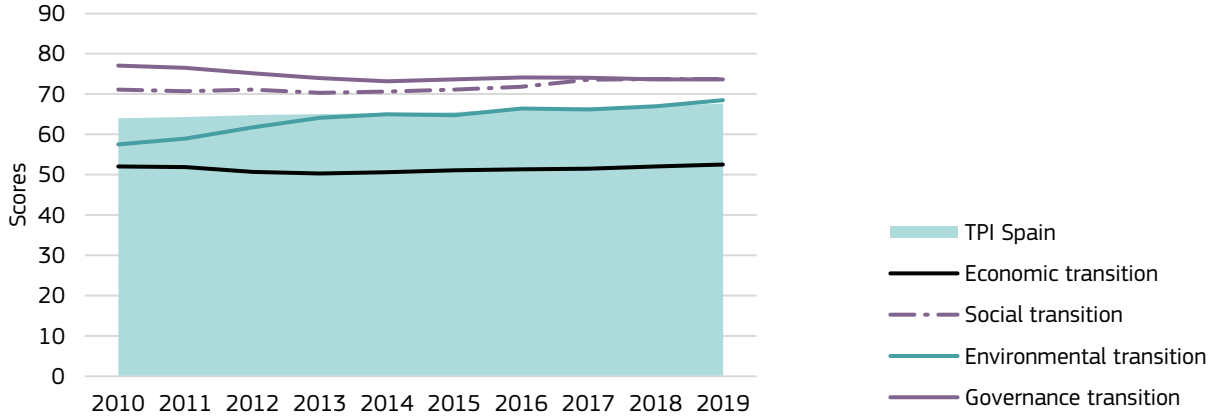
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Spain ranks** | **18** | **34** | **26** | **9** | **24** |
| Spain score | 67.6 | 52.5 | 73.7 | 68.5 | 73.7 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# SPAIN

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **18** | **67.6** | – |
| **1.** | **Economic transition** | | **34** | **52.5** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 16.6 | 33 | 66.3 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 41 592.3 | 24 | 55.5 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 27 | 40.3 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 84 686.4 | 21 | 56.5 | – |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.2 | 32 | 24.1 | ↓ |
| 1.4 | INDUSTRIAL BASE | | 40 | 44.9 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 11.1 | 51 | 37.0 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.7 | 31 | 56.9 | ↘ |
| **2.** | **Social transition** | | **26** | **73.7** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 72.2 | 5 | 90.7 | – |
| 2.2 | WORK AND INCLUSION | | 32 | 69.3 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 67.0 | 43 | 54.0 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 13.8 | 29 | 80.3 | – |
| 2.2.3 | Early childhood care and education (%) | 66.8 | 17 | 77.9 | ↗ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 55.9 | 26 | 74.4 | – |
| 2.4 | EQUALITY | | 42 | 63.6 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 34.7 | 38 | 67.3 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 6.2 | 49 | 52.5 | ↘ |
| **3.** | **Environmental transition** | | **9** | **68.5** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 7.7 | 36 | 67.9 | – |
| 3.2 | BIODIVERSITY | | 37 | 55.9 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 56.6 | 33 | 56.6 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 46.1 | 35 | 46.1 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 3.6 | 43 | 74.4 | ↓ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 4.6 | 7 | 76.5 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 14.7 | 15 | 73.7 | ↑ |
| **4.** | **Governance transition** | | **24** | **73.7** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 25 | 84.5 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 1.1 | 21 | 85.6 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 1.0 | 29 | 83.4 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.6 | 15 | 86.6 | – |
| 4.3 | TRANSPARENCY | | 30 | 56.7 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 58.0 | 31 | 58.0 | ↓ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.4 | 24 | 55.8 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 97.6 | 63 | 53.2 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# SWEDEN

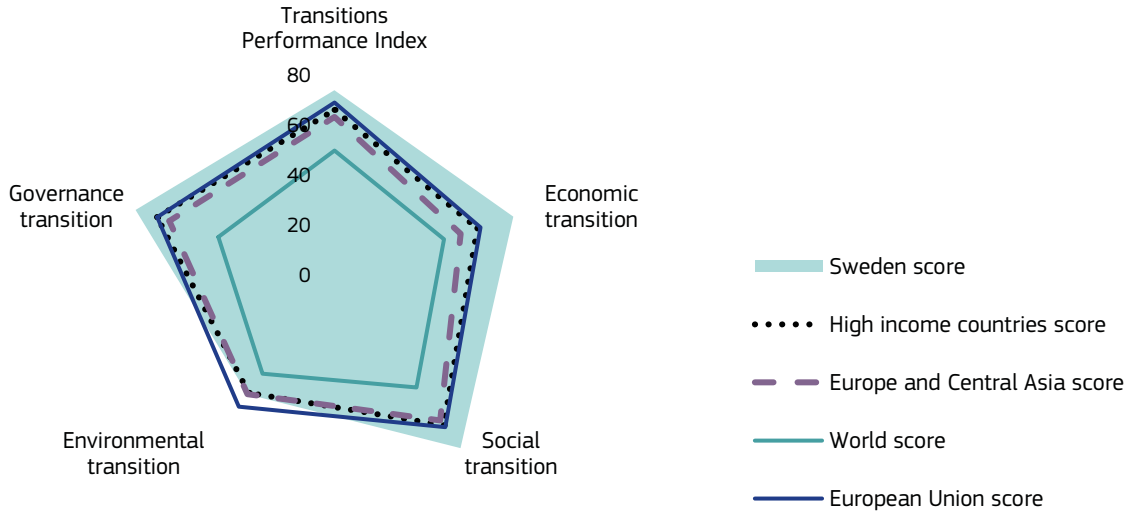
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 10.3 | GDP PER CAPITA (current PPP$) | 54 628.1 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 563.9 | TRADE (% of GDP) | 90.5 |
| SUMMARY INNOVATION INDEX (0-100) | 71.3 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 69.7 |

## RANKS AND SCORES

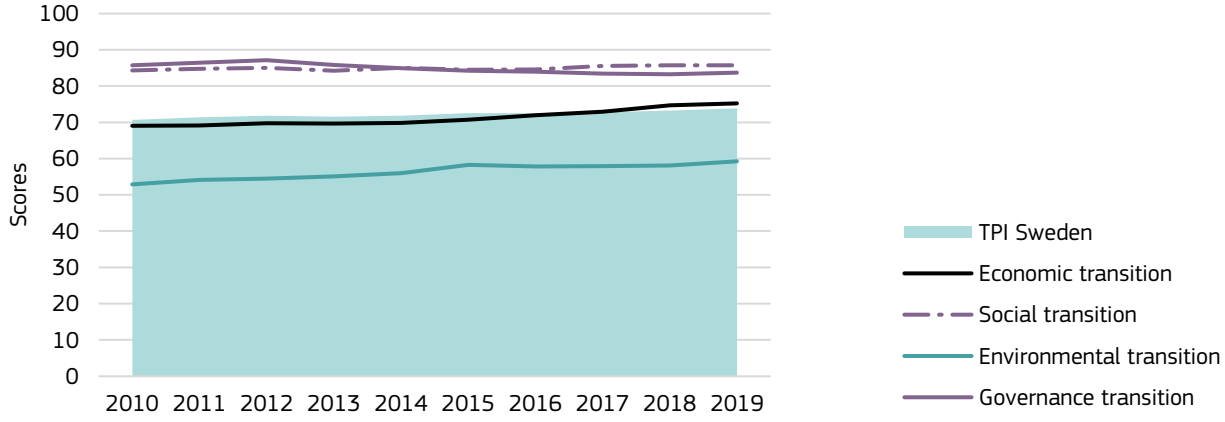
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Sweden ranks** | **6** | **2** | **3** | **29** | **5** |
| Sweden score | 73.8 | 75.2 | 85.7 | 59.2 | 83.7 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# SWEDEN

| | | 2019 VALUE | 2019 RANK | 2019 SCORE | 2010-2019 SCORE PROGRESS |
|---|---|---|---|---|---|
| **TRANSITIONS PERFORMANCE INDEX** | | | **6** | **73.8** | – |
| **1.** | **Economic transition** | | **2** | **75.2** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 24.1 | 1 | 96.5 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 54 628.1 | 11 | 72.8 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 6 | 65.0 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 95 155.4 | 13 | 63.4 | ↗ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 3.3 | 4 | 66.5 | – |
| 1.4 | INDUSTRIAL BASE | | 14 | 62.2 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 13.3 | 32 | 44.3 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 7.1 | 5 | 89.1 | ↘ |
| **2.** | **Social transition** | | **3** | **85.7** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 71.5 | 14 | 88.5 | – |
| 2.2 | WORK AND INCLUSION | | 2 | 86.6 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 82.4 | 5 | 84.8 | ↗ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 7.2 | 2 | 89.7 | – |
| 2.2.3 | Early childhood care and education (%) | 70.4 | 12 | 83.9 | – |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 65.3 | 2 | 91.4 | – |
| 2.4 | EQUALITY | | 13 | 80.0 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 28.8 | 13 | 80.4 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 8.3 | 16 | 78.8 | ↘ |
| **3.** | **Environmental transition** | | **29** | **59.2** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 5.5 | 17 | 77.1 | ↗ |
| 3.2 | BIODIVERSITY | | 27 | 67.3 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 58.4 | 31 | 58.4 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 61.9 | 30 | 61.9 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 0.6 | 10 | 95.8 | – |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.2 | 32 | 37.3 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 11.0 | 38 | 55.2 | ↑ |
| **4.** | **Governance transition** | | **5** | **83.7** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 5 | 95.9 | – |
| 4.1.1 | Voice and accountability index (z-score) | 1.6 | 6 | 94.6 | – |
| 4.1.2 | Rule of law index (z-score) | 1.9 | 4 | 97.1 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.1 | 26 | 79.7 | ↘ |
| 4.3 | TRANSPARENCY | | 4 | 72.9 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 85.0 | 3 | 85.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 3.5 | 5 | 64.9 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 38.8 | 22 | 91.1 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# EUROPEAN UNION

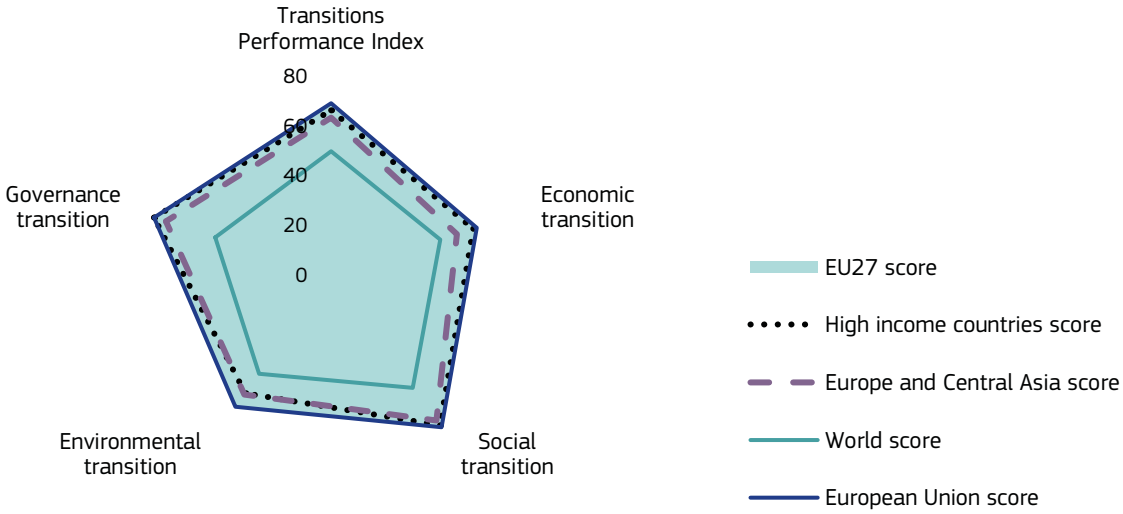
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **444.4** | **GDP PER CAPITA (current PPP$)** | **44 201.8** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **19 643.0** | **TRADE (% of GDP)** | **95.1** |

## RANKS AND SCORES

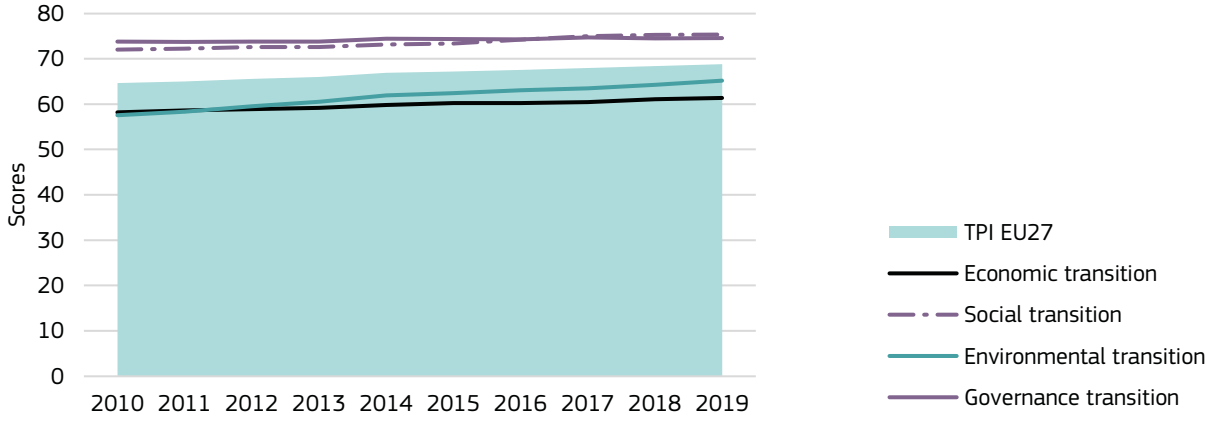
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **EU27 ranks** | **16** | **17** | **22** | **15** | **21** |
| EU27 score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# EUROPEAN UNION

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **16** | **68.8** | – |
| **1.** | **Economic transition** | | **17** | **61.4** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 18.0 | 25 | 72.0 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 44 201.8 | 25 | 58.9 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 22 | 48.3 | ↗ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 85 067.3 | 20 | 56.7 | ↗ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 2.0 | 16 | 39.9 | ↗ |
| 1.4 | INDUSTRIAL BASE | | 16 | 61.1 | – |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 14.9 | 25 | 49.7 | – |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 3.2 | 16 | 78.1 | ↘ |
| **2.** | **Social transition** | | **22** | **75.4** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 69.8 | 29 | 82.6 | – |
| 2.2 | WORK AND INCLUSION | | 28 | 72.3 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 72.4 | 32 | 64.8 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 13.9 | 29 | 80.1 | – |
| 2.2.3 | Early childhood care and education (%) | 63.1 | 21 | 71.9 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 56.7 | 24 | 75.8 | ↗ |
| 2.4 | EQUALITY | | 28 | 71.7 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 32.2 | 24 | 72.9 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 7.4 | 30 | 68.0 | ↘ |
| **3.** | **Environmental transition** | | **15** | **65.2** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 8.9 | 48 | 62.9 | – |
| 3.2 | BIODIVERSITY | | 20 | 78.4 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 78.3 | 20 | 78.3 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 78.7 | 20 | 78.7 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 3.1 | 40 | 78.0 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 3.0 | 19 | 50.8 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 13.7 | 25 | 68.6 | ↑ |
| **4.** | **Governance transition** | | **21** | **74.5** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 25 | 86.1 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 1.1 | 20 | 86.7 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 1.1 | 25 | 85.4 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.0 | 26 | 81.1 | – |
| 4.3 | TRANSPARENCY | | 26 | 59.7 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 65.5 | 23 | 65.5 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.4 | 23 | 55.9 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 79.7 | 58 | 64.7 | – |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# ALBANIA

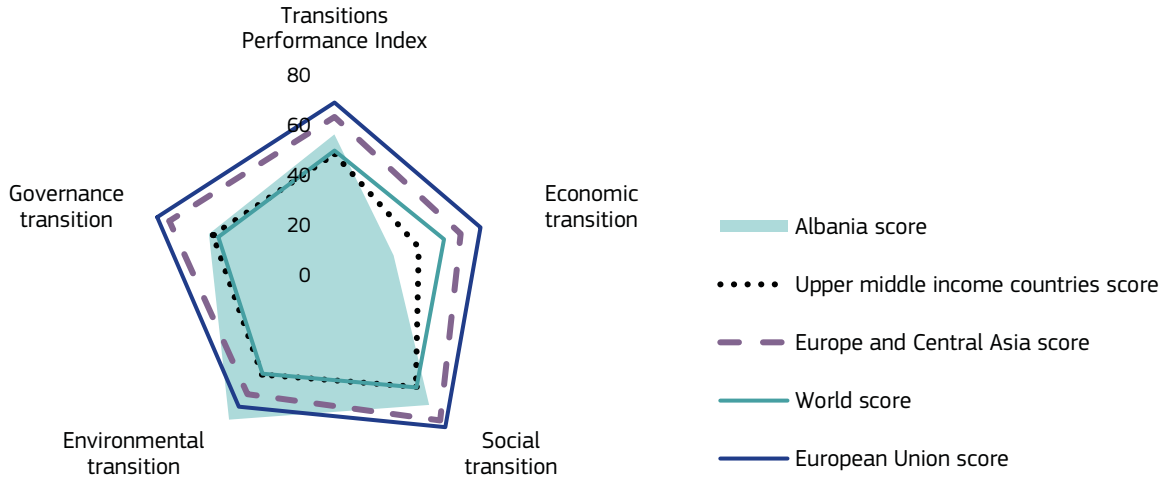
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **2.9** | **GDP PER CAPITA (current PPP$)** | **13 991.1** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **40.2** | **TRADE (% of GDP)** | **76.7** |

## RANKS AND SCORES

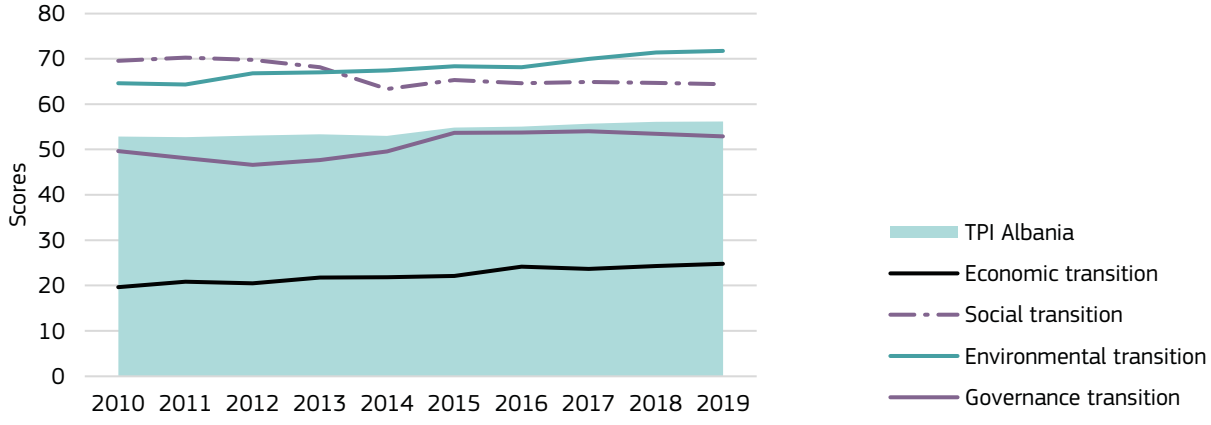
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Albania ranks** | **39** | **67** | **41** | **8** | **53** |
| Albania score | 56.2 | 24.8 | 64.4 | 71.7 | 52.9 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# ALBANIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **39** | **56.2** | – |
| **1.** | **Economic transition** | | **67** | **24.8** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 11.0 | 56 | 43.9 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 13 991.1 | 60 | 18.7 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 62 | 12.0 | ↗ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 31 421.4 | 59 | 20.9 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.2 | 71 | 3.1 | – |
| 1.4 | INDUSTRIAL BASE | | 72 | 18.3 | ↑ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 6.2 | 68 | 20.7 | ↗ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.0 | 64 | 14.7 | ↑ |
| **2.** | **Social transition** | | **41** | **64.4** | ↘ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 66.7 | 33 | 72.5 | ↗ |
| 2.2 | WORK AND INCLUSION | | 54 | 53.0 | ↘ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 54.7 | 59 | 29.5 | ↓ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 17.2 | 41 | 75.5 | – |
| 2.2.3 | Early childhood care and education (%) | 53.0 | 42 | 55.0 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 45.6 | 55 | 55.6 | ↓ |
| 2.4 | EQUALITY | | 30 | 70.2 | ↓ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 33.2 | 31 | 70.7 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 7.5 | 29 | 68.8 | ↓ |
| **3.** | **Environmental transition** | | **8** | **71.7** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 3.1 | 8 | 87.1 | ↘ |
| 3.2 | BIODIVERSITY | | 7 | 88.6 | ↑ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 76.1 | 23 | 76.1 | ↗ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 99.0 | 2 | 99.0 | ↑ |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 1.0 | 17 | 92.9 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.8 | 44 | 30.8 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 16.1 | 8 | 80.3 | ↗ |
| **4.** | **Governance transition** | | **53** | **52.9** | ↗ |
| 4.1 | FUNDAMENTAL RIGHTS | | 51 | 46.5 | – |
| 4.1.1 | Voice and accountability index (z-score) | 0.2 | 46 | 58.2 | – |
| 4.1.2 | Rule of law index (z-score) | (0.4) | 61 | 34.7 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 2.3 | 50 | 67.0 | ↑ |
| 4.3 | TRANSPARENCY | | 61 | 38.4 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 36.0 | 57 | 36.0 | ↗ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 6.0 | 59 | 40.0 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 66.7 | 50 | 73.1 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# ALGERIA

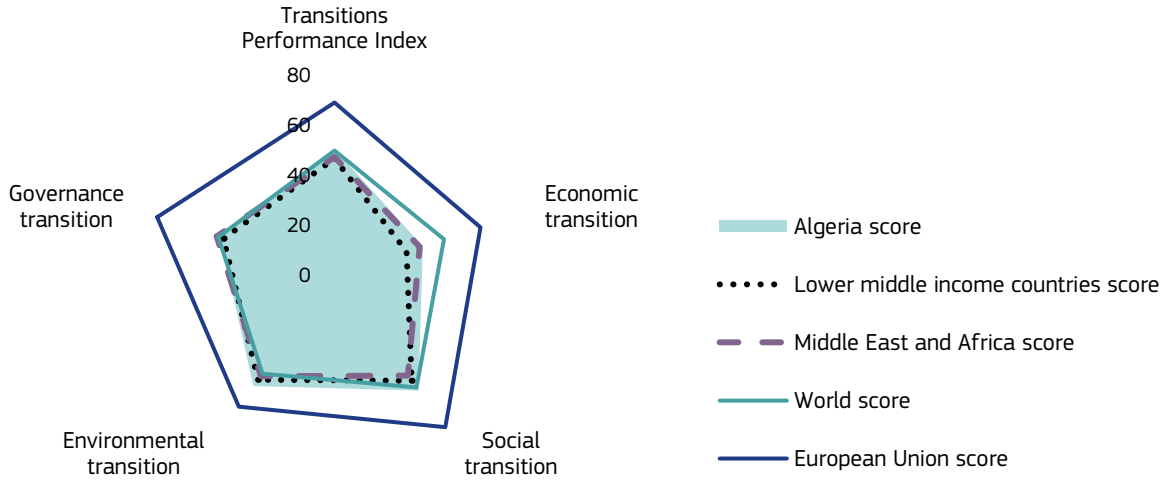
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **43.4** | **GDP PER CAPITA (current PPP$)** | **15 696.4** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **681.4** | **TRADE (% of GDP)** | **52.0** |

## RANKS AND SCORES

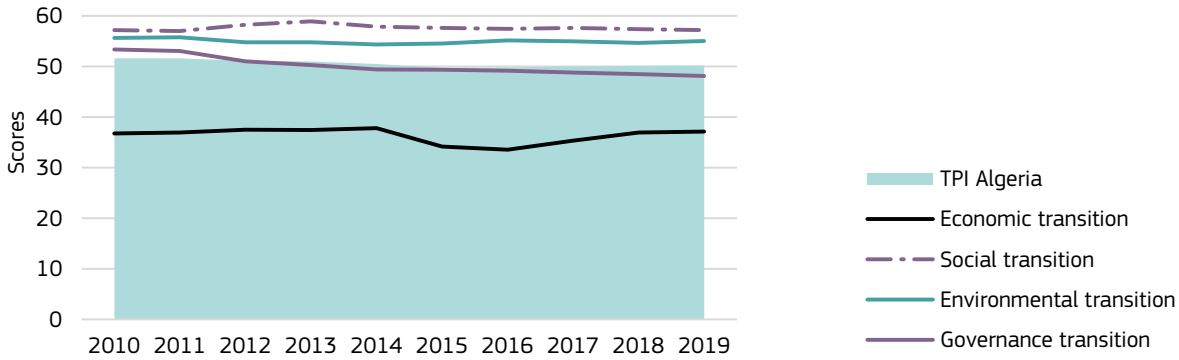
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Algeria ranks** | **49** | **54** | **55** | **37** | **60** |
| Algeria score | 50.2 | 37.1 | 57.2 | 55.1 | 48.1 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Lower middle income countries score | 46.4 | 30.3 | 52.5 | 52.0 | 46.6 |
| Middle East and Africa score | 47.1 | 35.9 | 49.9 | 50.2 | 49.6 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# ALGERIA

| | | 2019 VALUE | 2019 RANK | 2019 SCORE | 2010-2019 SCORE PROGRESS |
|---|---|---|---|---|---|
| **TRANSITIONS PERFORMANCE INDEX** | | | **49** | **50.2** | ↘ |
| **1.** | **Economic transition** | | **54** | **37.1** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 9.7 | 60 | 38.7 | ↗ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 15 696.4 | 55 | 20.9 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 46 | 23.9 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 55 361.1 | 43 | 36.9 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.5 | 53 | 10.8 | – |
| 1.4 | INDUSTRIAL BASE | | 22 | 55.2 | ↓ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 27.2 | 4 | 90.6 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.0 | 71 | 2.1 | ↓ |
| **2.** | **Social transition** | | **55** | **57.2** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 65.4 | 41 | 68.2 | – |
| 2.2 | WORK AND INCLUSION | | 66 | 22.8 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 43.2 | 68 | 6.4 | ↓ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 55.3 | 68 | 21.0 | ↑ |
| 2.2.3 | Early childhood care and education (%) | 55.4 | 33 | 58.9 | ↘ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 30.7 | 69 | 28.5 | ↓ |
| 2.4 | EQUALITY | | 8 | 85.5 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 27.6 | 10 | 83.1 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 9.4 | 6 | 92.5 | – |
| **3.** | **Environmental transition** | | **37** | **55.1** | ↘ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 4.1 | 14 | 82.9 | – |
| 3.2 | BIODIVERSITY | | 36 | 56.1 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 40.2 | 45 | 40.2 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 52.5 | 34 | 52.5 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 0.7 | 12 | 94.9 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.8 | 45 | 30.5 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 10.2 | 44 | 50.8 | ↓ |
| **4.** | **Governance transition** | | **60** | **48.1** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 70 | 19.1 | – |
| 4.1.1 | Voice and accountability index (z-score) | (1.0) | 64 | 16.3 | ↗ |
| 4.1.2 | Rule of law index (z-score) | (0.8) | 70 | 21.9 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.4 | 37 | 76.2 | ↓ |
| 4.3 | TRANSPARENCY | | 67 | 36.3 | ↓ |
| 4.3.1 | Corruption perceptions index (0-100) | 35.0 | 61 | 35.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 6.3 | 64 | 37.2 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 46.1 | 30 | 86.4 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# ARGENTINA

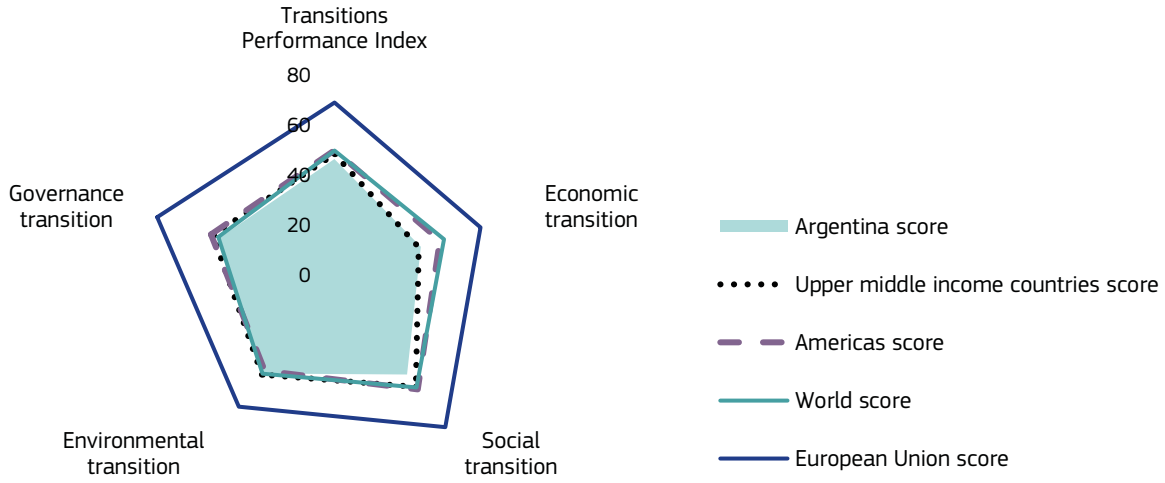
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **45.1** | **GDP PER CAPITA (current PPP$)** | **20 055.3** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **903.5** | **TRADE (% of GDP)** | **32.4** |

## RANKS AND SCORES

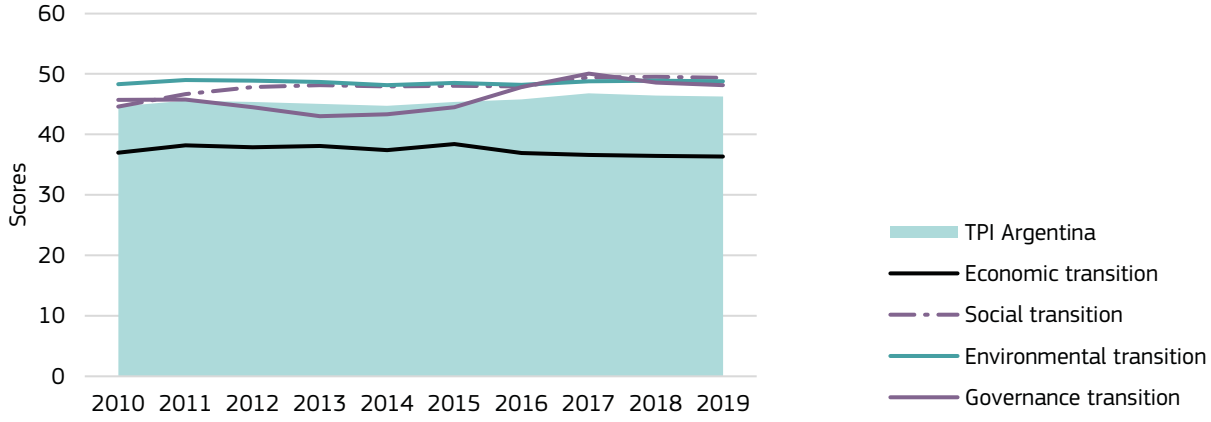
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Argentina ranks** | **61** | **56** | **64** | **49** | **59** |
| Argentina score | 46.3 | 36.3 | 49.3 | 48.8 | 48.2 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| America score | 49.8 | 44.2 | 56.7 | 47.5 | 52.0 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# ARGENTINA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **61** | **46.3** | – |
| **1.** | **Economic transition** | | **56** | **36.3** | ↘ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 13.6 | 46 | 54.3 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 20 055.3 | 49 | 26.7 | ↗ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 54 | 19.4 | ↘ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 42 086.0 | 50 | 28.1 | ↘ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.5 | 54 | 10.8 | ↘ |
| 1.4 | INDUSTRIAL BASE | | 60 | 36.1 | ↓ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 12.7 | 38 | 42.3 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.1 | 58 | 26.7 | ↓ |
| **2.** | **Social transition** | | **64** | **49.3** | ↗ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 65.9 | 37 | 69.7 | – |
| 2.2 | WORK AND INCLUSION | | 61 | 39.8 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 43.3 | 67 | 6.6 | ↘ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 24.2 | 57 | 65.5 | ↗ |
| 2.2.3 | Early childhood care and education (%) | 52.9 | 43 | 54.9 | ↗ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 34.0 | 63 | 34.6 | ↗ |
| 2.4 | EQUALITY | | 63 | 48.7 | ↑ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 41.4 | 61 | 52.4 | ↑ |
| 2.4.2 | Income share held by the poorest quintile (%) | 5.0 | 67 | 37.5 | ↑ |
| **3.** | **Environmental transition** | | **49** | **48.8** | – |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 7.5 | 35 | 68.7 | ↘ |
| 3.2 | BIODIVERSITY | | 50 | 41.8 | ↗ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 32.4 | 54 | 32.4 | ↗ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 39.6 | 38 | 39.6 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 4.9 | 48 | 65.1 | ↑ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.8 | 46 | 30.4 | – |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 10.8 | 42 | 54.2 | ↘ |
| **4.** | **Governance transition** | | **59** | **48.2** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 44 | 56.0 | ↑ |
| 4.1.1 | Voice and accountability index (z-score) | 0.6 | 37 | 71.4 | ↗ |
| 4.1.2 | Rule of law index (z-score) | (0.2) | 56 | 40.5 | ↑ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 5.3 | 64 | 48.9 | – |
| 4.3 | TRANSPARENCY | | 64 | 37.0 | ↑ |
| 4.3.1 | Corruption perceptions index (0-100) | 40.0 | 51 | 40.0 | ↑ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 6.5 | 67 | 35.0 | ↑ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 93.3 | 62 | 55.9 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# ARMENIA

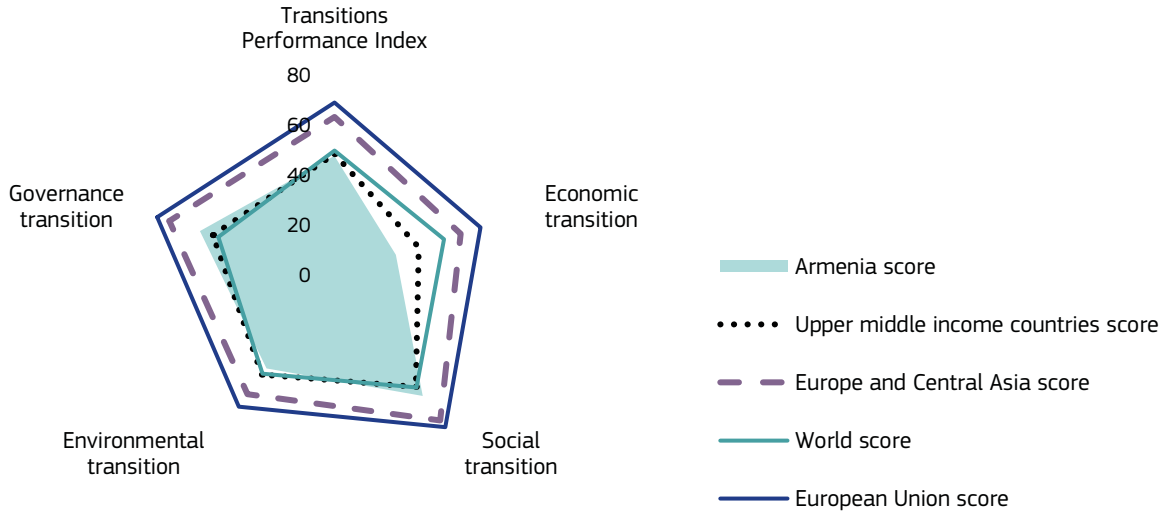
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **3.0** | **GDP PER CAPITA (current PPP$)** | **11 083.1** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **32.9** | **TRADE (% of GDP)** | **91.4** |

## RANKS AND SCORES

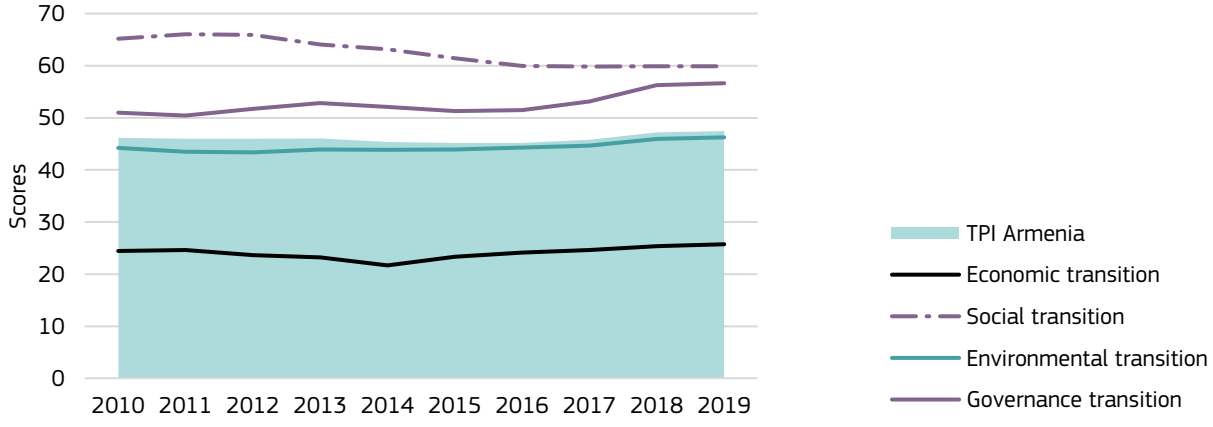
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Armenia ranks** | **57** | **66** | **50** | **55** | **50** |
| Armenia score | 47.5 | 25.8 | 59.9 | 46.2 | 56.6 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# ARMENIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **57** | **47.5** | – |
| **1.** | **Economic transition** | | **66** | **25.8** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 8.2 | 66 | 33.0 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 11 083.1 | 64 | 14.8 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 66 | 10.7 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 26 540.3 | 62 | 17.7 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.2 | 69 | 3.8 | ↓ |
| 1.4 | INDUSTRIAL BASE | | 61 | 35.9 | – |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 11.3 | 47 | 37.7 | ↑ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.1 | 53 | 33.1 | ↓ |
| **2.** | **Social transition** | | **50** | **59.9** | ↘ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 63.6 | 57 | 62.1 | ↗ |
| 2.2 | WORK AND INCLUSION | | 60 | 43.1 | ↘ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 54.1 | 60 | 28.2 | ↓ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 18.7 | 46 | 73.2 | ↗ |
| 2.2.3 | Early childhood care and education (%) | 27.5 | 66 | 12.6 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 46.0 | 54 | 56.3 | ↓ |
| 2.4 | EQUALITY | | 31 | 70.1 | ↓ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 34.4 | 35 | 68.0 | ↓ |
| 2.4.2 | Income share held by the poorest quintile (%) | 8.1 | 18 | 76.3 | ↓ |
| **3.** | **Environmental transition** | | **55** | **46.2** | – |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 4.2 | 15 | 82.6 | ↘ |
| 3.2 | BIODIVERSITY | | 56 | 38.6 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 21.5 | 66 | 21.5 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 26.8 | 58 | 26.8 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 0.6 | 9 | 96.1 | – |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.0 | 67 | 16.9 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 9.4 | 50 | 46.9 | ↑ |
| **4.** | **Governance transition** | | **50** | **56.6** | ↗ |
| 4.1 | FUNDAMENTAL RIGHTS | | 54 | 44.8 | ↑ |
| 4.1.1 | Voice and accountability index (z-score) | (0.1) | 58 | 45.5 | ↑ |
| 4.1.2 | Rule of law index (z-score) | (0.2) | 53 | 44.0 | ↑ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.7 | 44 | 72.6 | – |
| 4.3 | TRANSPARENCY | | 51 | 43.5 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 35.0 | 61 | 35.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.1 | 46 | 49.2 | – |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 50.0 | 34 | 83.8 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# AUSTRALIA

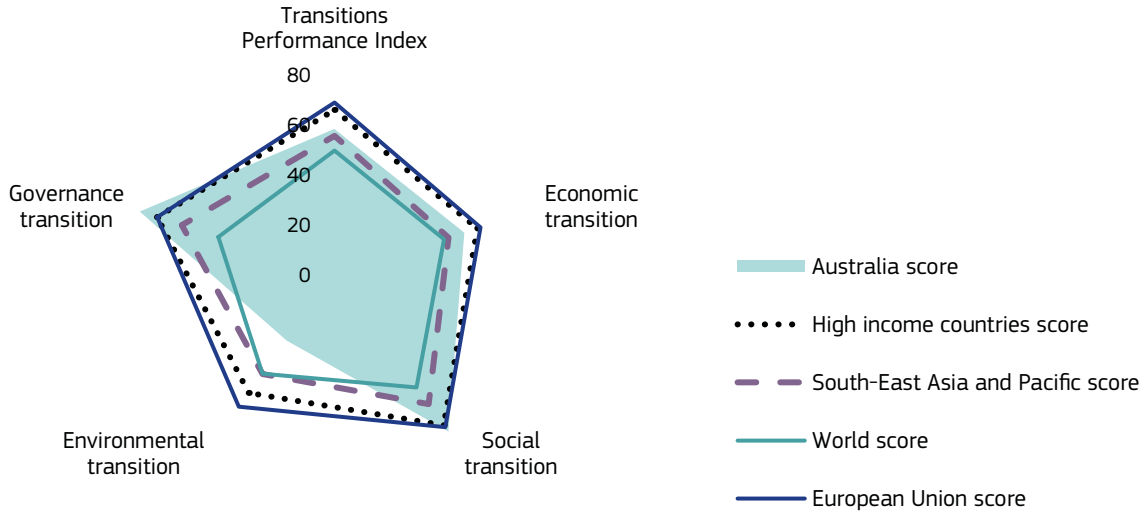
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **25.6** | **GDP PER CAPITA (current PPP$)** | **53 378.5** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **1 364.8** | **TRADE (% of GDP)** | **45.7** |
| **SUMMARY INNOVATION INDEX (0-100)** | **56.2** | | |

## RANKS AND SCORES

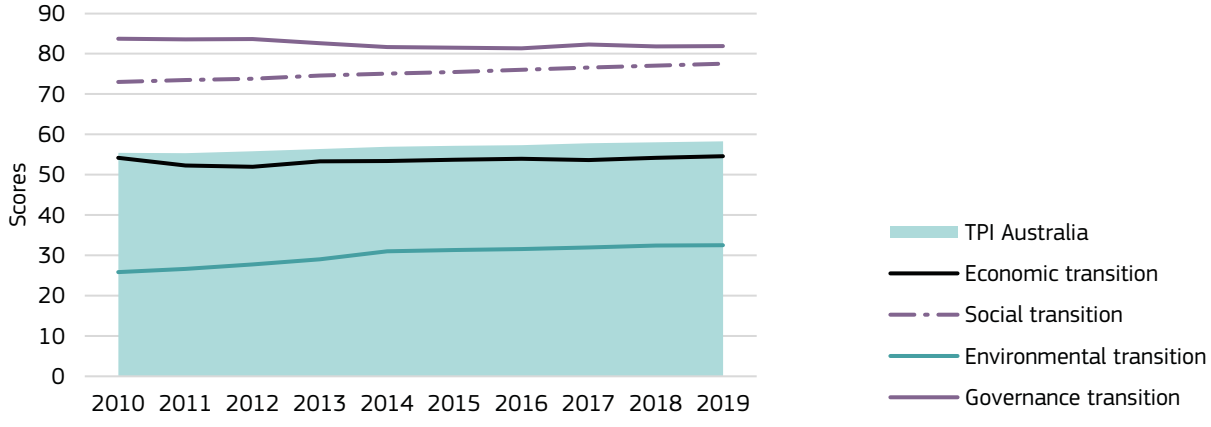
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Australia ranks** | **36** | **29** | **18** | **70** | **8** |
| Australia score | 58.3 | 54.6 | 77.5 | 32.5 | 81.9 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| South-East Asia and Pacific score | 55.6 | 47.9 | 64.0 | 49.0 | 64.1 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# AUSTRALIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **36** | **58.3** | – |
| **1.** | **Economic transition** | | **29** | **54.6** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 16.2 | 36 | 64.8 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 53 378.5 | 15 | 71.2 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 18 | 49.6 | ↘ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 91 133.8 | 17 | 60.8 | ↗ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.9 | 18 | 38.4 | ↓ |
| 1.4 | INDUSTRIAL BASE | | 59 | 36.6 | ↓ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 5.8 | 69 | 19.3 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 1.0 | 26 | 62.6 | ↘ |
| **2.** | **Social transition** | | **18** | **77.5** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 71.8 | 12 | 89.4 | – |
| 2.2 | WORK AND INCLUSION | | 13 | 77.7 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 78.4 | 15 | 76.7 | ↗ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 12.1 | 20 | 82.7 | ↗ |
| 2.2.3 | Early childhood care and education (%) | 61.8 | 25 | 69.7 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 58.7 | 16 | 79.4 | ↗ |
| 2.4 | EQUALITY | | 33 | 67.9 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 34.4 | 35 | 68.0 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 7.4 | 31 | 67.5 | – |
| **3.** | **Environmental transition** | | **70** | **32.5** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 22.5 | 72 | 6.1 | ↗ |
| 3.2 | BIODIVERSITY | | 39 | 52.8 | ↗ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 52.7 | 34 | 52.7 | ↑ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 36.6 | 43 | 36.6 | ↑ |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 2.0 | 30 | 85.4 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.5 | 54 | 24.5 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 9.3 | 51 | 46.5 | ↑ |
| **4.** | **Governance transition** | | **8** | **81.9** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 11 | 94.0 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 1.4 | 10 | 92.3 | – |
| 4.1.2 | Rule of law index (z-score) | 1.7 | 13 | 95.7 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.9 | 21 | 82.3 | – |
| 4.3 | TRANSPARENCY | | 8 | 67.0 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 77.0 | 13 | 77.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.0 | 15 | 60.3 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 41.8 | 27 | 89.2 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# BOSNIA AND HERZEGOVINA

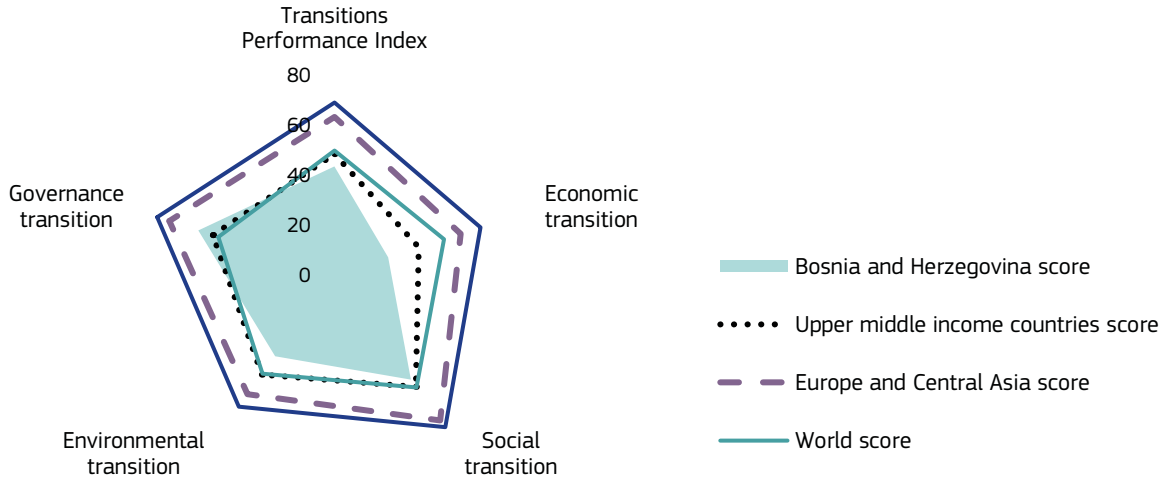
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **3.5** | **GDP PER CAPITA (current PPP$)** | **14 219.7** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **49.8** | **TRADE (% of GDP)** | **95.9** |

## RANKS AND SCORES

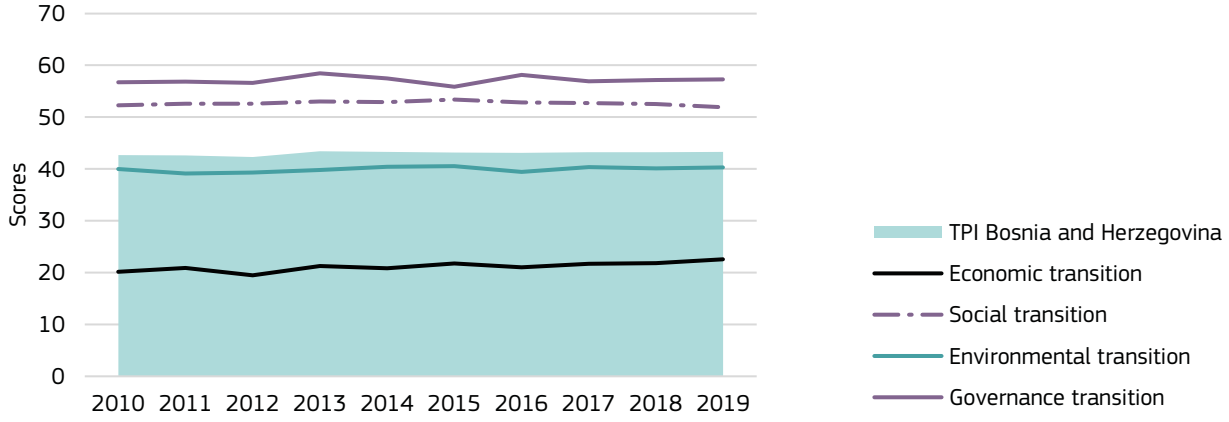
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Bosnia and Herzegovina ranks** | **66** | **69** | **60** | **62** | **47** |
| Bosnia and Herzegovina score | 43.3 | 22.5 | 51.9 | 40.3 | 57.3 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# BOSNIA AND HERZEGOVINA

| | | 2019 VALUE | 2019 RANK | 2019 SCORE | 2010-2019 SCORE PROGRESS |
|---|---|---|---|---|---|
| **TRANSITIONS PERFORMANCE INDEX** | | | **66** | **43.3** | – |
| **1.** | **Economic transition** | | **69** | **22.5** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | N/A | N/A | N/A | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 14 219.7 | 57 | 19.0 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 60 | 15.6 | ↗ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 40 888.9 | 54 | 27.3 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.2 | 68 | 4.0 | ↓ |
| 1.4 | INDUSTRIAL BASE | | 68 | 29.5 | – |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 13.2 | 33 | 44.0 | ↑ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.0 | 69 | 7.8 | ↓ |
| **2.** | **Social transition** | | **60** | **51.9** | ↘ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 64.9 | 48 | 66.4 | – |
| 2.2 | WORK AND INCLUSION | | 65 | 27.5 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 36.1 | 71 | 0.0 | ↗ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 21.8 | 53 | 68.8 | – |
| 2.2.3 | Early childhood care and education (%) | 17.2 | 68 | 0.0 | ↗ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 29.1 | 71 | 25.5 | ↓ |
| 2.4 | EQUALITY | | 29 | 70.5 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 33.0 | 30 | 71.1 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 7.5 | 29 | 68.8 | – |
| **3.** | **Environmental transition** | | **62** | **40.3** | – |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 8.2 | 41 | 65.8 | ↘ |
| 3.2 | BIODIVERSITY | | 49 | 42.4 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 18.2 | 69 | 18.2 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 66.7 | 27 | 66.7 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | N/A | N/A | N/A | ↑ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.4 | 57 | 22.9 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 6.0 | 65 | 30.1 | – |
| **4.** | **Governance transition** | | **47** | **57.3** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 57 | 40.6 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | (0.2) | 59 | 40.4 | ↓ |
| 4.1.2 | Rule of law index (z-score) | (0.2) | 55 | 40.8 | ↗ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.2 | 28 | 78.5 | – |
| 4.3 | TRANSPARENCY | | 56 | 40.2 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 38.0 | 54 | 38.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.8 | 57 | 41.7 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 33.3 | 15 | 94.6 | – |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# BRAZIL

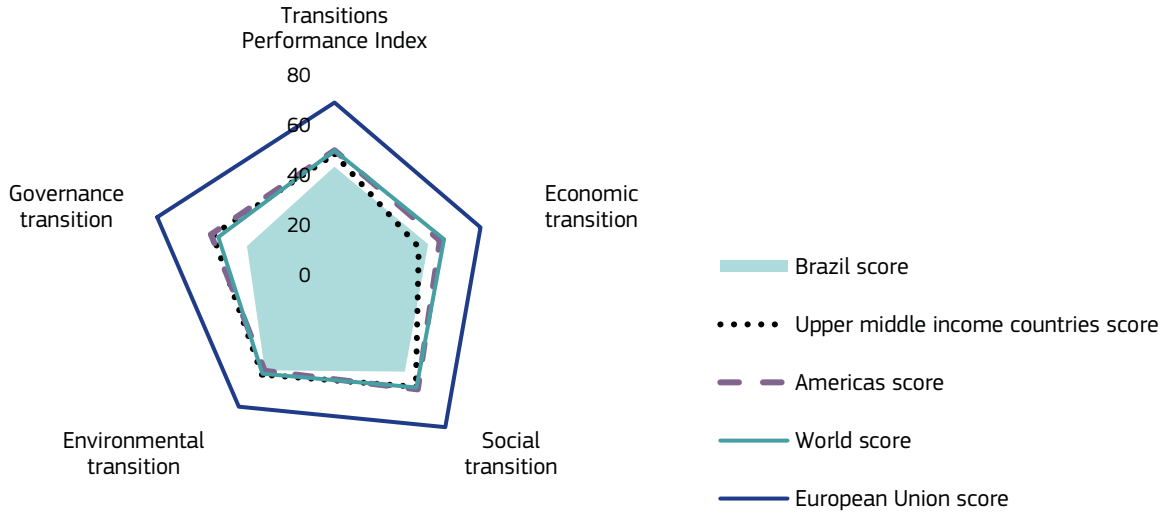
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **210.0** | **GDP PER CAPITA (current PPP$)** | **16 461.8** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **3 456.4** | **TRADE (% of GDP)** | **29.0** |
| **SUMMARY INNOVATION INDEX (0-100)** | **31.4** | | |

## RANKS AND SCORES

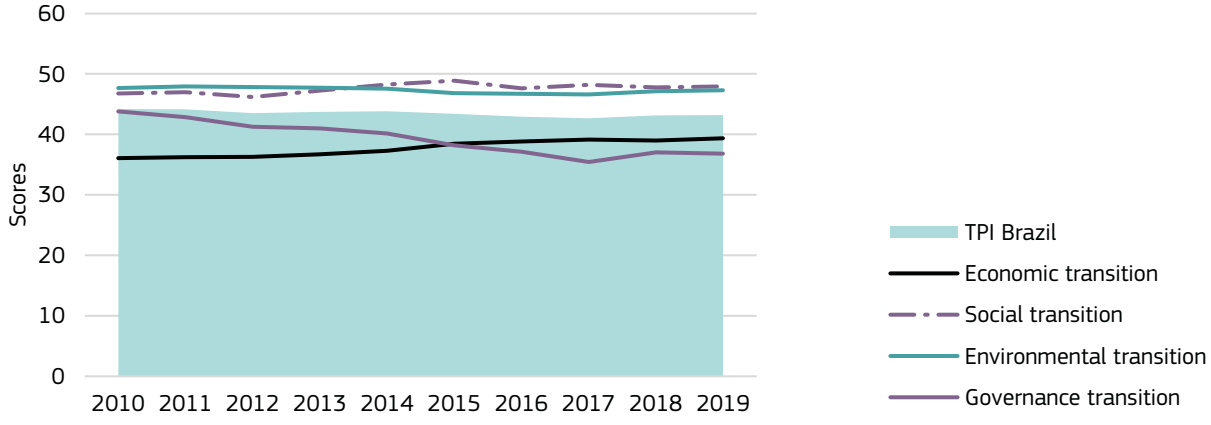
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Brazil ranks** | **67** | **50** | **65** | **52** | **69** |
| Brazil score | 43.2 | 39.4 | 47.9 | 47.3 | 36.8 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| America score | 49.8 | 44.2 | 56.7 | 47.5 | 52.0 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# BRAZIL

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **67** | **43.2** | ↘ |
| **1.** | **Economic transition** | | **50** | **39.4** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 17.1 | 29 | 68.4 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 16 461.8 | 54 | 21.9 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 47 | 23.4 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 32 232.4 | 57 | 21.5 | ↘ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.3 | 29 | 25.3 | ↗ |
| 1.4 | INDUSTRIAL BASE | | 65 | 32.6 | ↓ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 9.7 | 58 | 32.2 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.1 | 54 | 33.1 | ↘ |
| **2.** | **Social transition** | | **65** | **47.9** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 63.4 | 59 | 61.3 | ↗ |
| 2.2 | WORK AND INCLUSION | | 46 | 59.0 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 65.4 | 48 | 50.7 | ↓ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 21.9 | 54 | 68.7 | ↗ |
| 2.2.3 | Early childhood care and education (%) | 53.7 | 40 | 56.2 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 51.1 | 36 | 65.5 | ↘ |
| 2.4 | EQUALITY | | 71 | 21.9 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 53.9 | 71 | 24.7 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 3.1 | 70 | 13.8 | ↓ |
| **3.** | **Environmental transition** | | **52** | **47.3** | ↘ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 5.1 | 16 | 78.7 | ↘ |
| 3.2 | BIODIVERSITY | | 63 | 33.4 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 42.2 | 40 | 42.2 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 12.5 | 65 | 12.5 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 6.0 | 51 | 57.5 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.3 | 58 | 21.5 | ↗ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 11.1 | 36 | 55.7 | ↘ |
| **4.** | **Governance transition** | | **69** | **36.8** | ↓ |
| 4.1 | FUNDAMENTAL RIGHTS | | 48 | 52.1 | ↓ |
| 4.1.1 | Voice and accountability index (z-score) | 0.4 | 40 | 65.1 | ↘ |
| 4.1.2 | Rule of law index (z-score) | (0.3) | 57 | 39.1 | ↓ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 27.4 | 69 | 7.3 | ↓ |
| 4.3 | TRANSPARENCY | | 50 | 44.2 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 35.0 | 61 | 35.0 | ↓ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.0 | 41 | 50.3 | – |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 91.6 | 61 | 57.1 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# CANADA

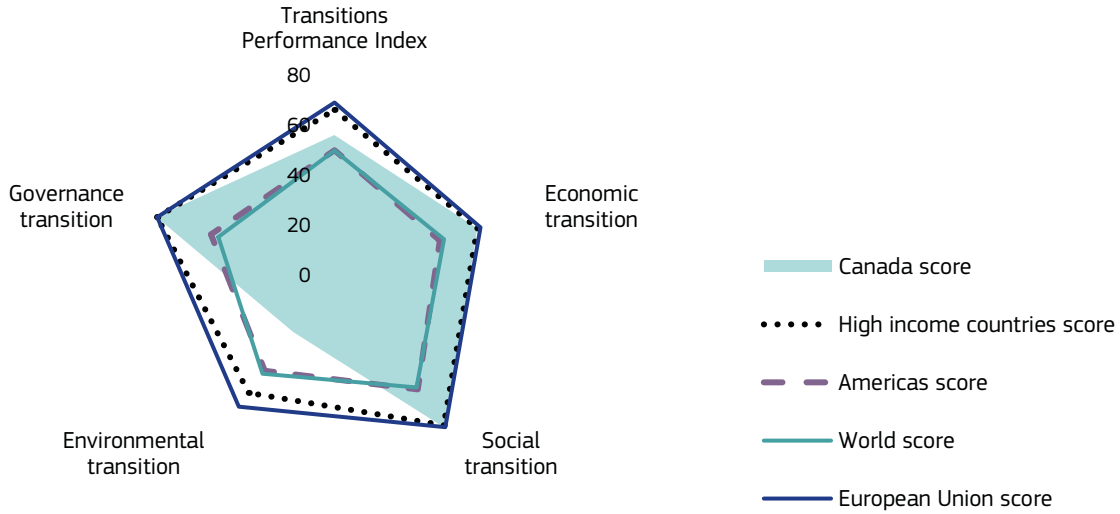
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **37.5** | **GDP PER CAPITA (current PPP$)** | **50 725.4** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **1 899.9** | **TRADE (% of GDP)** | **65.0** |
| **SUMMARY INNOVATION INDEX (0-100)** | **61.7** | | |

## RANKS AND SCORES

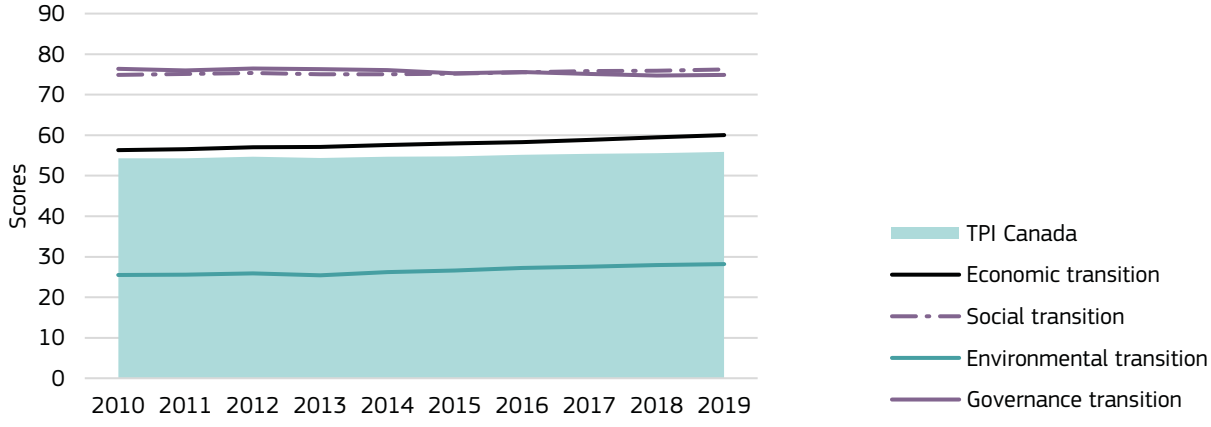
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Canada ranks** | **40** | **20** | **21** | **72** | **20** |
| Canada score | 55.8 | 60.0 | 76.2 | 28.2 | 74.9 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| America score | 49.8 | 44.2 | 56.7 | 47.5 | 52.0 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# CANADA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **40** | **55.8** | – |
| **1.** | **Economic transition** | | **20** | **60.0** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 19.1 | 17 | 76.4 | ↗ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 50 725.4 | 16 | 67.6 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 23 | 44.1 | ↘ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 85 726.2 | 19 | 57.2 | ↗ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.6 | 22 | 31.1 | ↓ |
| 1.4 | INDUSTRIAL BASE | | 31 | 49.2 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 10.3 | 54 | 34.5 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 1.9 | 19 | 71.2 | ↘ |
| **2.** | **Social transition** | | **21** | **76.2** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 72.0 | 6 | 90.0 | – |
| 2.2 | WORK AND INCLUSION | | 16 | 76.5 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 75.7 | 23 | 71.4 | ↗ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 9.3 | 6 | 86.7 | – |
| 2.2.3 | Early childhood care and education (%) | 59.9 | 30 | 66.5 | – |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 56.5 | 24 | 75.5 | – |
| 2.4 | EQUALITY | | 35 | 66.7 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 33.8 | 32 | 69.3 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 6.7 | 38 | 58.8 | ↘ |
| **3.** | **Environmental transition** | | **72** | **28.2** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 19.5 | 68 | 18.8 | ↑ |
| 3.2 | BIODIVERSITY | | 61 | 35.5 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 26.5 | 59 | 26.5 | ↗ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 20.8 | 60 | 20.8 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 2.4 | 37 | 83.1 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.8 | 49 | 30.0 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 5.7 | 68 | 28.5 | – |
| **4.** | **Governance transition** | | **20** | **74.9** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 9 | 94.9 | – |
| 4.1.1 | Voice and accountability index (z-score) | 1.5 | 9 | 93.6 | – |
| 4.1.2 | Rule of law index (z-score) | 1.8 | 11 | 96.2 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.8 | 45 | 71.9 | ↘ |
| 4.3 | TRANSPARENCY | | 16 | 62.9 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 81.0 | 9 | 81.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.9 | 39 | 50.8 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 87.5 | 60 | 59.7 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# CHILE

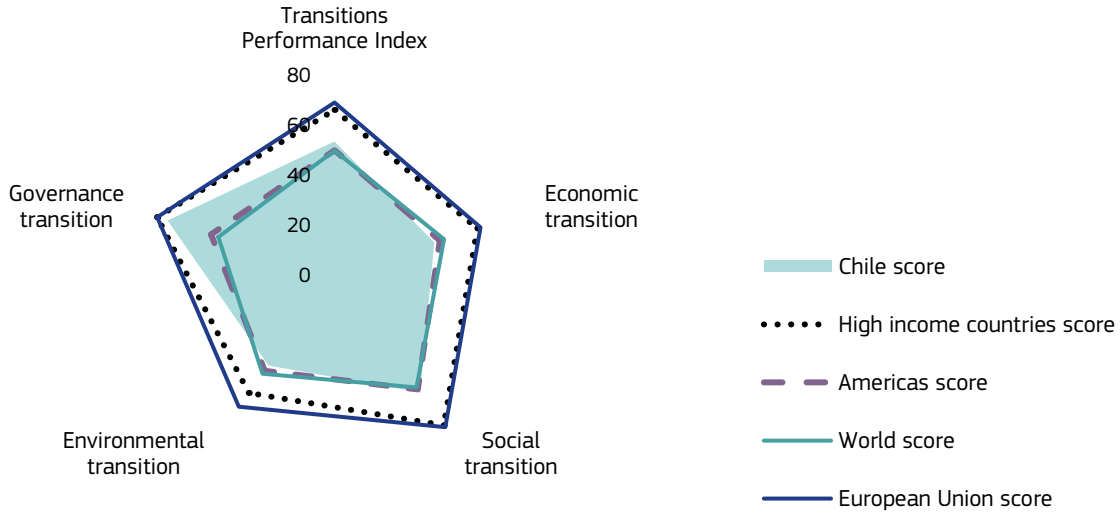
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **19.1** | **GDP PER CAPITA (current PPP$)** | **26 317.1** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **502.8** | **TRADE (% of GDP)** | **56.8** |

## RANKS AND SCORES

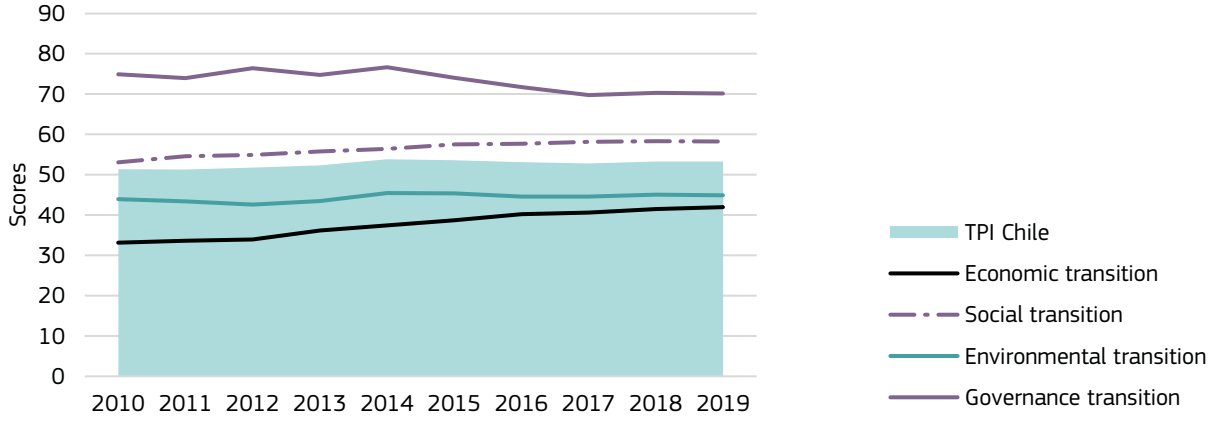
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Chile ranks** | **45** | **45** | **53** | **57** | **30** |
| Chile score | 53.3 | 42.0 | 58.2 | 44.9 | 70.2 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| America score | 49.8 | 44.2 | 56.7 | 47.5 | 52.0 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# CHILE

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **45** | **53.3** | – |
| **1.** | **Economic transition** | | **45** | **42.0** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 16.1 | 37 | 64.6 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 26 317.1 | 44 | 35.1 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 53 | 20.1 | ↗ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 49 463.9 | 46 | 33.0 | ↗ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.4 | 62 | 7.2 | ↗ |
| 1.4 | INDUSTRIAL BASE | | 53 | 38.6 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 10.6 | 53 | 35.5 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.2 | 41 | 43.1 | – |
| **2.** | **Social transition** | | **53** | **58.2** | ↗ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 67.9 | 30 | 76.2 | – |
| 2.2 | WORK AND INCLUSION | | 51 | 56.4 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 65.6 | 47 | 51.3 | ↗ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 25.0 | 58 | 64.2 | ↑ |
| 2.2.3 | Early childhood care and education (%) | 50.5 | 47 | 50.8 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 47.3 | 51 | 58.7 | ↗ |
| 2.4 | EQUALITY | | 65 | 46.2 | ↑ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 44.4 | 65 | 45.8 | ↑ |
| 2.4.2 | Income share held by the poorest quintile (%) | 5.8 | 54 | 47.5 | ↑ |
| **3.** | **Environmental transition** | | **57** | **44.9** | – |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 6.1 | 23 | 74.4 | ↘ |
| 3.2 | BIODIVERSITY | | 54 | 39.1 | ↗ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 34.8 | 52 | 34.8 | ↗ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 33.2 | 53 | 33.2 | ↑ |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 5.7 | 50 | 59.4 | – |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 0.7 | 72 | 11.2 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 10.9 | 40 | 54.7 | – |
| **4.** | **Governance transition** | | **30** | **70.2** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 23 | 86.1 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 1.1 | 22 | 85.4 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 1.1 | 24 | 86.8 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 4.4 | 60 | 53.3 | ↓ |
| 4.3 | TRANSPARENCY | | 23 | 61.7 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 67.0 | 23 | 67.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.2 | 21 | 58.2 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 27.5 | 7 | 98.4 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# CHINA

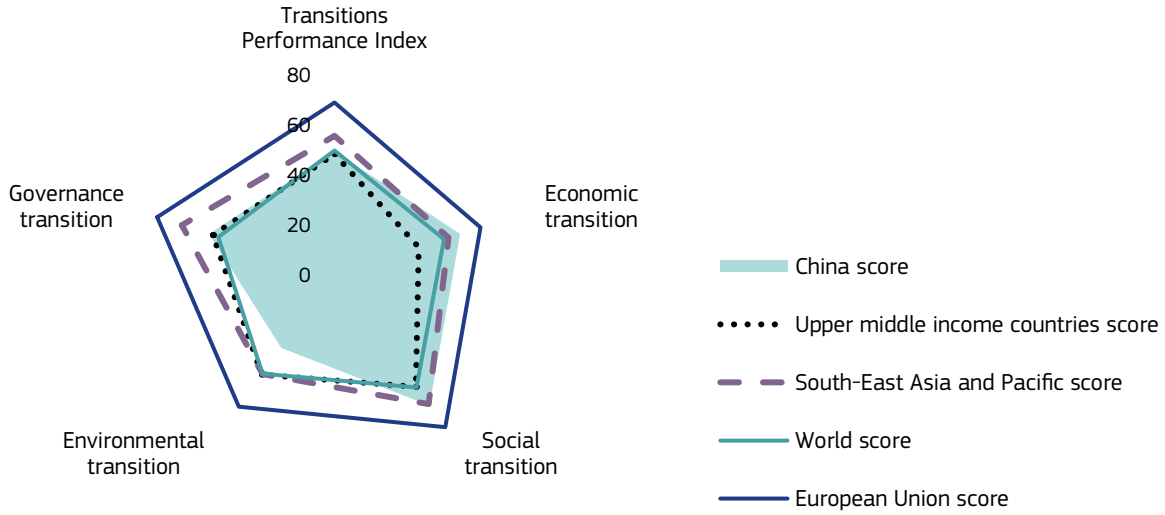
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **1 400.2** | **GDP PER CAPITA (current PPP$)** | **19 503.9** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **27 308.9** | **TRADE (% of GDP)** | **35.7** |
| **SUMMARY INNOVATION INDEX (0-100)** | **46.8** | | |

## RANKS AND SCORES

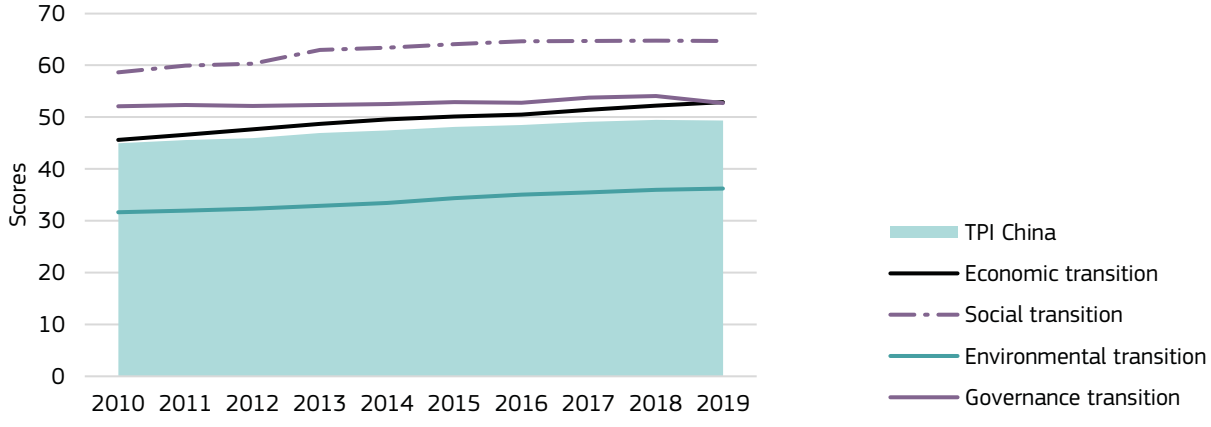
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **China ranks** | **51** | **33** | **40** | **66** | **54** |
| China score | 49.4 | 52.9 | 64.7 | 36.2 | 52.7 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| South-East Asia and Pacific score | 55.6 | 47.9 | 64.0 | 49.0 | 64.1 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# CHINA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **51** | **49.4** | ↗ |
| **1.** | **Economic transition** | | **33** | **52.9** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 13.4 | 47 | 53.6 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 19 503.9 | 50 | 26.0 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 36 | 32.1 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 32 002.1 | 58 | 21.3 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 2.1 | 14 | 42.9 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 3 | 83.8 | – |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 29.4 | 2 | 98.0 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 1.0 | 27 | 62.5 | ↗ |
| **2.** | **Social transition** | | **40** | **64.7** | ↗ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 68.0 | 29 | 76.8 | – |
| 2.2 | WORK AND INCLUSION | | 34 | 68.4 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 69.2 | 41 | 58.5 | ↓ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 15.9 | 36 | 77.3 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 62.4 | 23 | 70.6 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 46.4 | 52 | 57.1 | ↘ |
| 2.4 | EQUALITY | | 51 | 58.2 | ↑ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 38.5 | 52 | 58.9 | ↑ |
| 2.4.2 | Income share held by the poorest quintile (%) | 6.5 | 45 | 56.3 | ↑ |
| **3.** | **Environmental transition** | | **66** | **36.2** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 8.7 | 43 | 64.0 | – |
| 3.2 | BIODIVERSITY | | 67 | 30.2 | ↗ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 37.8 | 48 | 37.8 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 34.4 | 50 | 34.4 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 13.1 | 63 | 6.6 | ↗ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 0.8 | 69 | 13.0 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 7.5 | 61 | 37.7 | ↑ |
| **4.** | **Governance transition** | | **54** | **52.7** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 68 | 24.7 | ↑ |
| 4.1.1 | Voice and accountability index (z-score) | (1.4) | 71 | 7.4 | ↑ |
| 4.1.2 | Rule of law index (z-score) | (0.2) | 54 | 42.0 | ↑ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.5 | 8 | 88.3 | ↗ |
| 4.3 | TRANSPARENCY | | 68 | 36.1 | ↓ |
| 4.3.1 | Corruption perceptions index (0-100) | 39.0 | 52 | 39.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 6.6 | 68 | 34.1 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 55.6 | 40 | 80.3 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# COLOMBIA

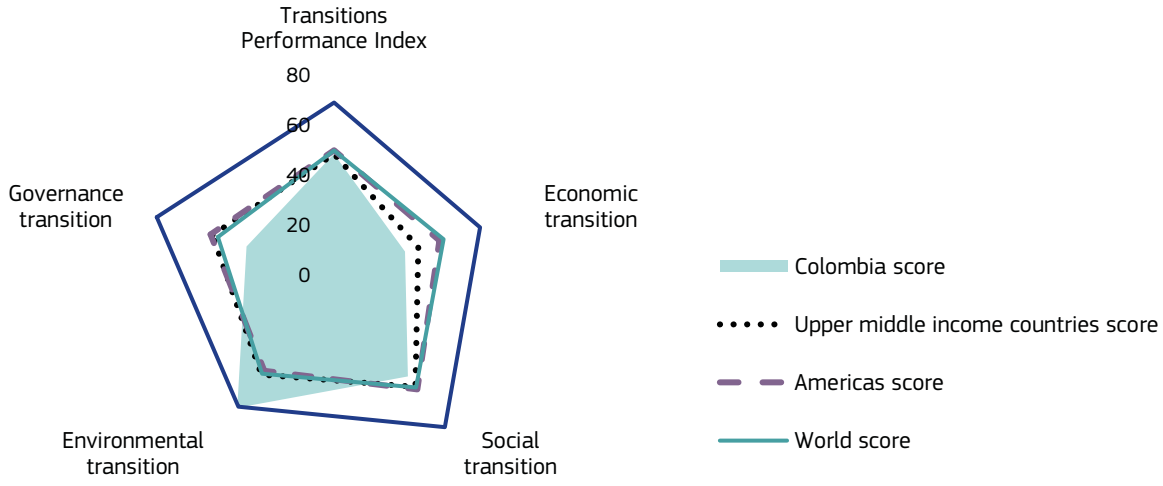
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **50.4** | **GDP PER CAPITA (current PPP$)** | **15 541.2** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **783.0** | **TRADE (% of GDP)** | **38.1** |

## RANKS AND SCORES

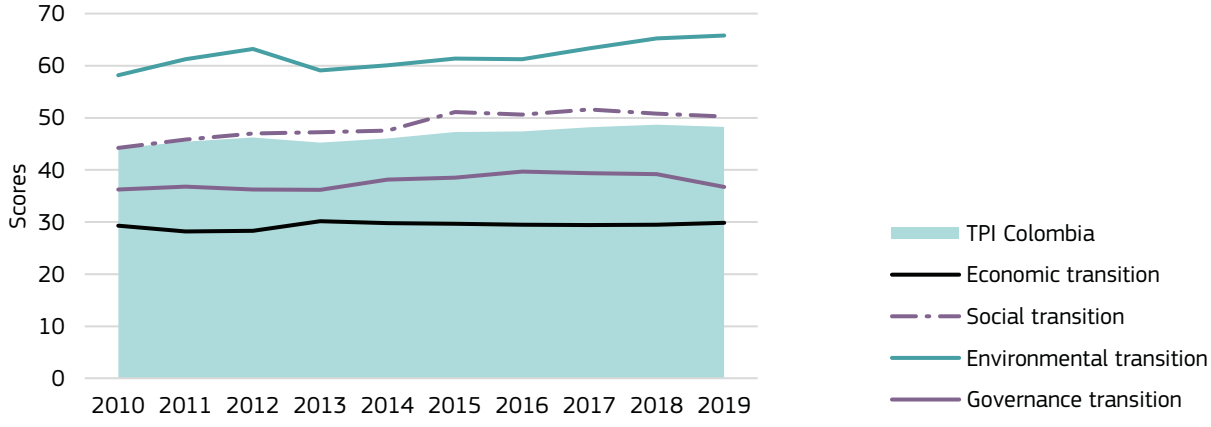
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Colombia ranks** | **55** | **60** | **61** | **12** | **70** |
| Colombia score | 48.2 | 29.9 | 50.3 | 65.8 | 36.7 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| America score | 49.8 | 44.2 | 56.7 | 47.5 | 52.0 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# COLOMBIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **55** | **48.2** | ↗ |
| **1.** | **Economic transition** | | **60** | **29.9** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 11.2 | 53 | 44.9 | – |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 15 541.2 | 56 | 20.7 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 63 | 11.8 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 28 300.7 | 61 | 18.9 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.2 | 67 | 4.7 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 64 | 33.0 | ↓ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 11.2 | 49 | 37.4 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.1 | 59 | 26.4 | ↘ |
| **2.** | **Social transition** | | **61** | **50.3** | ↑ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 64.4 | 52 | 64.6 | ↗ |
| 2.2 | WORK AND INCLUSION | | 52 | 56.0 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 66.5 | 44 | 53.0 | ↘ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 27.2 | 59 | 61.2 | – |
| 2.2.3 | Early childhood care and education (%) | 50.9 | 45 | 51.5 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 48.5 | 47 | 61.0 | – |
| 2.4 | EQUALITY | | 70 | 30.6 | ↑ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 50.4 | 70 | 32.4 | ↑ |
| 2.4.2 | Income share held by the poorest quintile (%) | 4.0 | 69 | 25.0 | ↑ |
| **3.** | **Environmental transition** | | **12** | **65.8** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 3.2 | 9 | 86.8 | ↘ |
| 3.2 | BIODIVERSITY | | 52 | 40.3 | ↑ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 41.4 | 41 | 41.4 | ↑ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 39.3 | 39 | 39.3 | ↑ |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | N/A | N/A | N/A | ↑ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.7 | 19 | 45.3 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 18.2 | 5 | 90.9 | – |
| **4.** | **Governance transition** | | **70** | **36.7** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 53 | 45.9 | ↗ |
| 4.1.1 | Voice and accountability index (z-score) | 0.2 | 47 | 57.6 | ↑ |
| 4.1.2 | Rule of law index (z-score) | (0.4) | 62 | 34.2 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 25.3 | 68 | 9.4 | ↑ |
| 4.3 | TRANSPARENCY | | 58 | 39.4 | ↓ |
| 4.3.1 | Corruption perceptions index (0-100) | 36.0 | 57 | 36.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.8 | 57 | 41.7 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 51.0 | 35 | 83.2 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# EGYPT

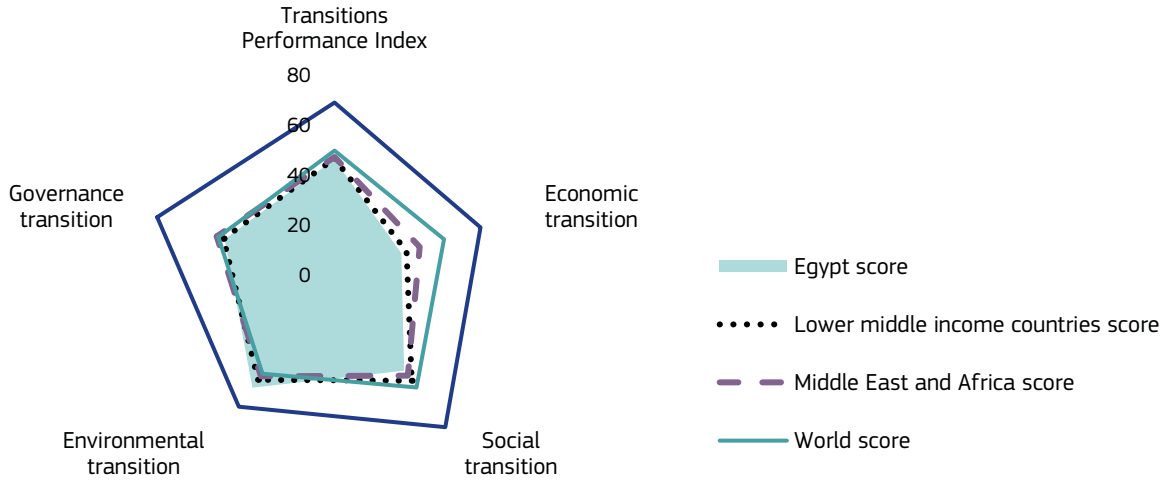
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **99.2** | **GDP PER CAPITA (current PPP$)** | **14 023.2** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **1 391.3** | **TRADE (% of GDP)** | **48.3** |

## RANKS AND SCORES

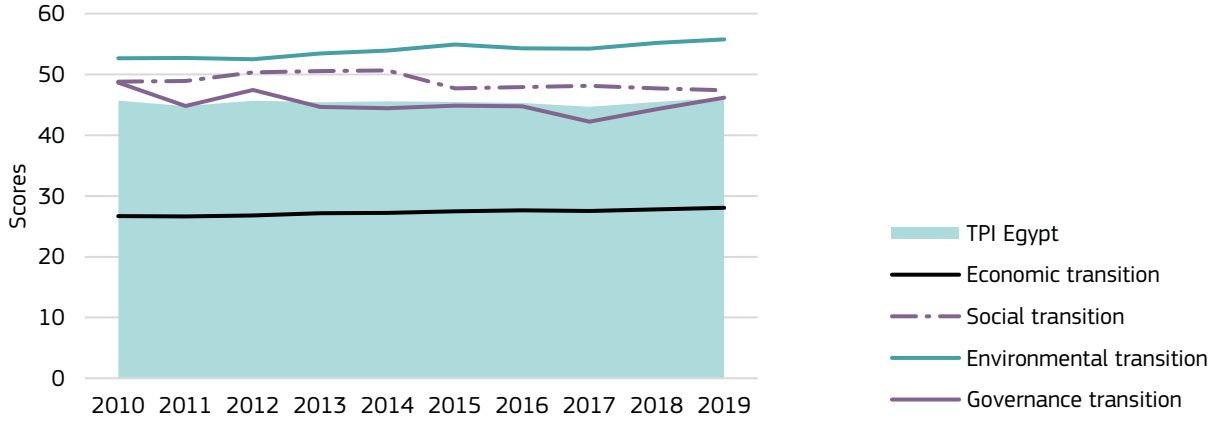
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Egypt ranks** | **62** | **63** | **67** | **35** | **63** |
| Egypt score | 46.2 | 28.1 | 47.4 | 55.8 | 46.2 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Lower middle income countries score | 46.4 | 30.3 | 52.5 | 52.0 | 46.6 |
| Middle East and Africa score | 47.1 | 35.9 | 49.9 | 50.2 | 49.6 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# EGYPT

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **62** | **46.2** | – |
| **1.** | **Economic transition** | | **63** | **28.1** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 7.5 | 67 | 30.0 | – |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 14 023.2 | 58 | 18.7 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 51 | 21.1 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 41 603.4 | 51 | 27.7 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.7 | 48 | 14.5 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 58 | 37.0 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 16.3 | 22 | 54.3 | – |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.0 | 67 | 11.2 | ↓ |
| **2.** | **Social transition** | | **67** | **47.4** | ↘ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 59.9 | 66 | 49.6 | ↗ |
| 2.2 | WORK AND INCLUSION | | 71 | 11.1 | ↘ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 46.5 | 63 | 13.0 | ↓ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 60.0 | 70 | 14.3 | ↑ |
| 2.2.3 | Early childhood care and education (%) | 20.5 | 67 | 0.8 | ↗ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 30.3 | 70 | 27.9 | ↓ |
| 2.4 | EQUALITY | | 16 | 77.7 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 31.5 | 21 | 74.4 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 9.0 | 9 | 87.5 | ↘ |
| **3.** | **Environmental transition** | | **35** | **55.8** | – |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 2.9 | 7 | 87.7 | – |
| 3.2 | BIODIVERSITY | | 46 | 44.5 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 40.3 | 44 | 40.3 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 28.5 | 56 | 28.5 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 2.2 | 31 | 84.6 | ↗ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.8 | 48 | 30.3 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 12.1 | 30 | 60.5 | – |
| **4.** | **Governance transition** | | **63** | **46.2** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 69 | 22.0 | ↓ |
| 4.1.1 | Voice and accountability index (z-score) | (1.3) | 68 | 10.0 | ↓ |
| 4.1.2 | Rule of law index (z-score) | (0.4) | 64 | 34.0 | ↓ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 2.6 | 53 | 64.9 | ↘ |
| 4.3 | TRANSPARENCY | | 48 | 46.7 | ↗ |
| 4.3.1 | Corruption perceptions index (0-100) | 35.0 | 61 | 35.0 | ↗ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.6 | 26 | 54.5 | ↗ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 84.9 | 58 | 61.4 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# GEORGIA

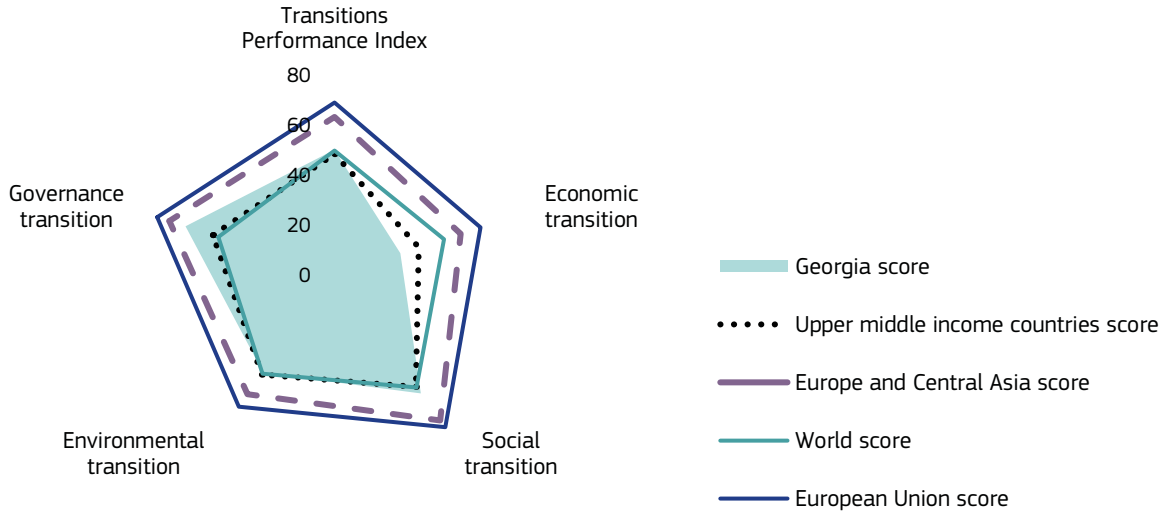
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **3.7** | **GDP PER CAPITA (current PPP$)** | **12 227.5** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **45.4** | **TRADE (% of GDP)** | **116.9** |

## RANKS AND SCORES

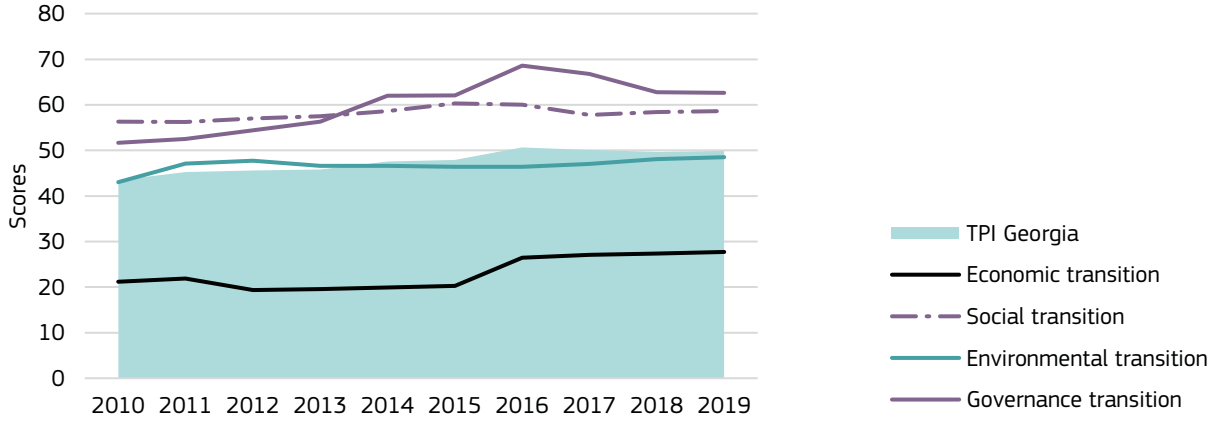
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Georgia ranks** | **50** | **65** | **52** | **50** | **41** |
| Georgia score | 49.9 | 27.7 | 58.6 | 48.5 | 62.7 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# GEORGIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **50** | **49.9** | ↑ |
| **1.** | **Economic transition** | | **65** | **27.7** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 11.1 | 54 | 44.6 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 12 227.5 | 63 | 16.3 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 67 | 10.6 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 22 744.0 | 65 | 15.2 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.3 | 64 | 6.1 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 66 | 29.8 | – |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 8.8 | 62 | 29.4 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.1 | 55 | 30.3 | ↗ |
| **2.** | **Social transition** | | **52** | **58.6** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 61.5 | 62 | 54.9 | – |
| 2.2 | WORK AND INCLUSION | | 53 | 54.9 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 60.9 | 52 | 41.7 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 19.8 | 49 | 71.7 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 48.7 | 50 | 47.8 | – |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 48.9 | 44 | 61.6 | ↘ |
| 2.4 | EQUALITY | | 47 | 61.7 | ↑ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 36.4 | 47 | 63.6 | ↗ |
| 2.4.2 | Income share held by the poorest quintile (%) | 6.5 | 45 | 56.3 | ↑ |
| **3.** | **Environmental transition** | | **50** | **48.5** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 3.7 | 13 | 84.8 | ↘ |
| 3.2 | BIODIVERSITY | | 58 | 36.9 | ↑ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 37.8 | 49 | 37.8 | ↑ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 36.1 | 46 | 36.1 | ↑ |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | N/A | N/A | N/A | ↑ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.7 | 51 | 28.6 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 8.7 | 55 | 43.7 | ↘ |
| **4.** | **Governance transition** | | **41** | **62.7** | ↑ |
| 4.1 | FUNDAMENTAL RIGHTS | | 40 | 61.3 | ↑ |
| 4.1.1 | Voice and accountability index (z-score) | 0.2 | 44 | 59.7 | ↑ |
| 4.1.2 | Rule of law index (z-score) | 0.3 | 38 | 62.9 | ↑ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 2.2 | 48 | 67.6 | ↑ |
| 4.3 | TRANSPARENCY | | 40 | 52.0 | ↗ |
| 4.3.1 | Corruption perceptions index (0-100) | 58.0 | 31 | 58.0 | ↗ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.2 | 49 | 48.0 | ↗ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 50.0 | 33 | 83.9 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# ICELAND

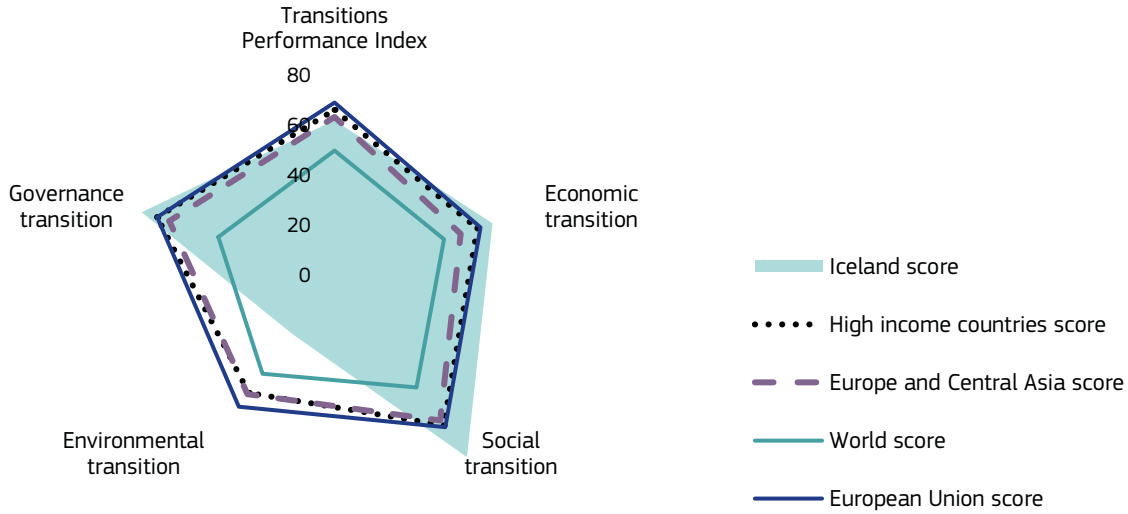
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **0.4** | **GDP PER CAPITA (current PPP$)** | **56 066.3** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **20.0** | **TRADE (% of GDP)** | **85.9** |
| **SUMMARY INNOVATION INDEX (0-100)** | **57.9** | | |

## RANKS AND SCORES

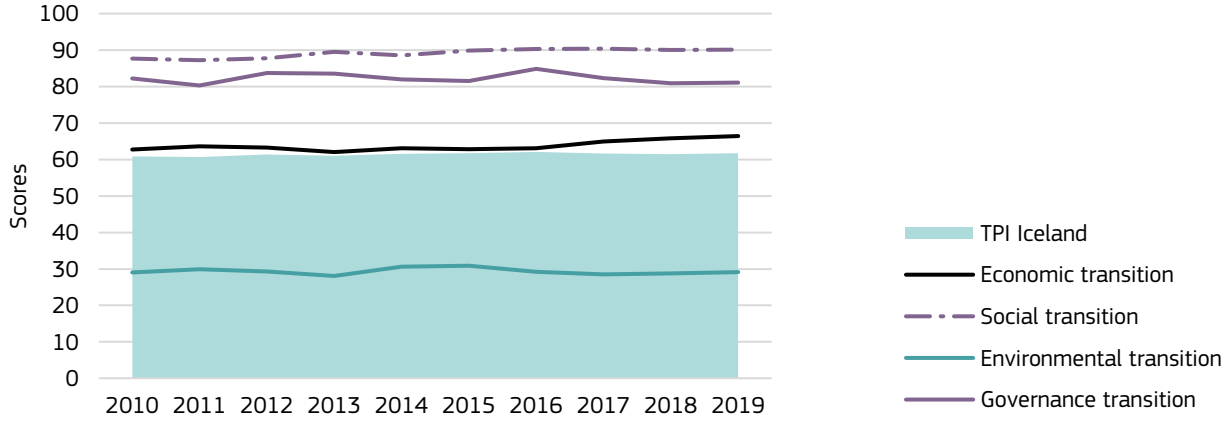
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Iceland ranks** | **30** | **12** | **1** | **71** | **10** |
| Iceland score | 61.8 | 66.4 | 90.1 | 29.1 | 81.1 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# ICELAND

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **30** | **61.8** | – |
| **1.** | **Economic transition** | | **12** | **66.4** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 22.3 | 4 | 89.3 | ↗ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 56 066.3 | 9 | 74.8 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 19 | 49.0 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 83 085.5 | 22 | 55.4 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 2.1 | 15 | 42.5 | ↓ |
| 1.4 | INDUSTRIAL BASE | | 29 | 49.5 | ↓ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 8.7 | 63 | 29.0 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 3.7 | 13 | 80.3 | ↘ |
| **2.** | **Social transition** | | **1** | **90.1** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 72.3 | 4 | 91.1 | – |
| 2.2 | WORK AND INCLUSION | | 1 | 90.8 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 86.5 | 2 | 93.0 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 10.3 | 9 | 85.2 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 78.6 | 1 | 97.6 | – |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 66.4 | 1 | 93.4 | – |
| 2.4 | EQUALITY | | 6 | 87.1 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 26.8 | 6 | 84.9 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 9.5 | 5 | 93.8 | – |
| **3.** | **Environmental transition** | | **71** | **29.1** | – |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 17.2 | 67 | 28.3 | ↓ |
| 3.2 | BIODIVERSITY | | 53 | 39.6 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 15.0 | 70 | 15.0 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 33.9 | 51 | 33.9 | ↗ |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 0.0 | 1 | 99.9 | – |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.0 | 39 | 33.0 | ↘ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 3.1 | 72 | 15.7 | ↑ |
| **4.** | **Governance transition** | | **10** | **81.1** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 12 | 93.9 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 1.4 | 12 | 92.1 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 1.7 | 12 | 95.7 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.9 | 20 | 82.4 | ↘ |
| 4.3 | TRANSPARENCY | | 18 | 62.4 | ↓ |
| 4.3.1 | Corruption perceptions index (0-100) | 76.0 | 14 | 76.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.7 | 32 | 53.4 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 33.6 | 16 | 94.5 | ↑ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# INDIA

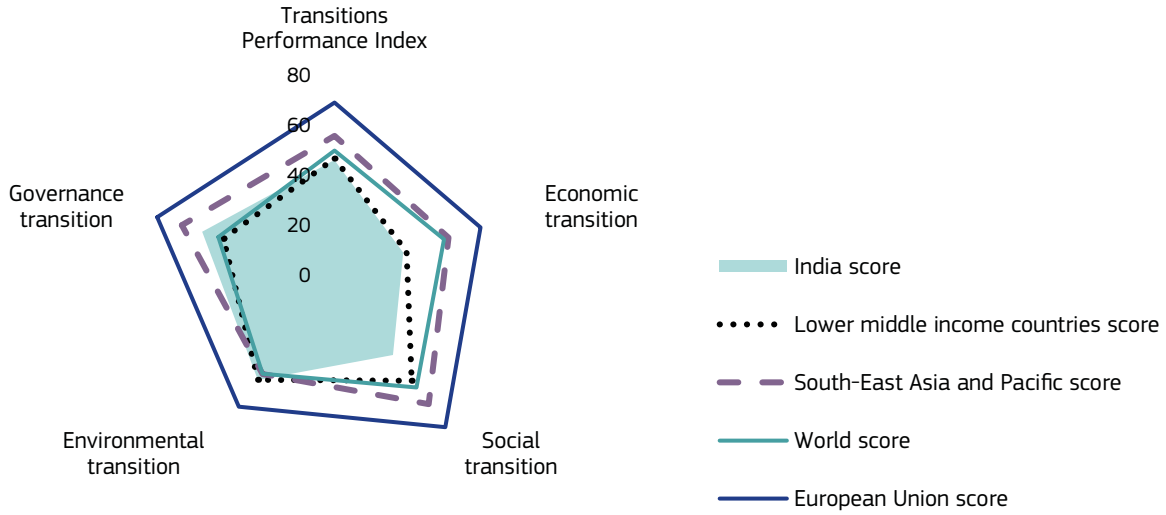
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **1 351.8** | **GDP PER CAPITA (current PPP$)** | **8 378.4** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **11 325.7** | **TRADE (% of GDP)** | **40.0** |
| **SUMMARY INNOVATION INDEX (0-100)** | **14.2** | | |

## RANKS AND SCORES

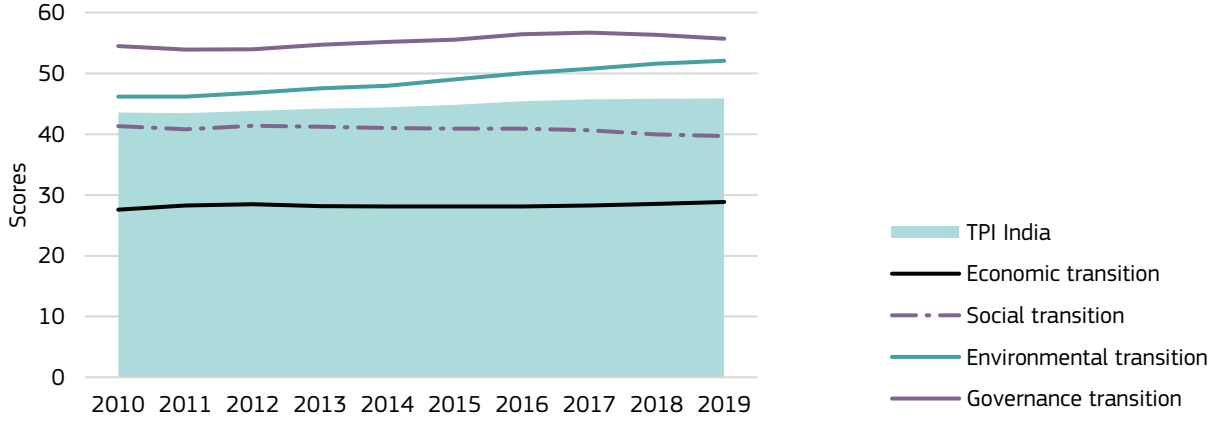
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **India ranks** | **63** | **61** | **70** | **43** | **51** |
| India score | 45.9 | 28.9 | 39.7 | 52.1 | 55.7 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Lower middle income countries score | 46.4 | 30.3 | 52.5 | 52.0 | 46.6 |
| South-East Asia and Pacific score | 55.6 | 47.9 | 64.0 | 49.0 | 64.1 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# INDIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **63** | **45.9** | – |
| **1.** | **Economic transition** | | **61** | **28.9** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 8.6 | 64 | 34.4 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 8 378.4 | 68 | 11.2 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 61 | 13.0 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 21 181.4 | 66 | 14.1 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.6 | 51 | 11.9 | ↓ |
| 1.4 | INDUSTRIAL BASE | | 38 | 45.7 | ↓ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 14.8 | 27 | 49.4 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.2 | 43 | 40.2 | ↓ |
| **2.** | **Social transition** | | **70** | **39.7** | ↘ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 58.7 | 69 | 45.6 | ↗ |
| 2.2 | WORK AND INCLUSION | | 72 | 6.6 | ↓ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 42.5 | 69 | 4.9 | ↓ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 61.9 | 71 | 11.6 | ↓ |
| 2.2.3 | Early childhood care and education (%) | 12.6 | 68 | 0.0 | ↗ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 28.4 | 72 | 24.3 | ↓ |
| 2.4 | EQUALITY | | 44 | 63.1 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 37.8 | 51 | 60.4 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 7.7 | 25 | 71.3 | – |
| **3.** | **Environmental transition** | | **43** | **52.1** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 1.7 | 4 | 92.9 | – |
| 3.2 | BIODIVERSITY | | 60 | 35.9 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 25.7 | 60 | 25.7 | ↑ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 15.1 | 63 | 15.1 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 0.3 | 8 | 97.8 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.5 | 53 | 25.5 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 10.8 | 43 | 54.1 | ↑ |
| **4.** | **Governance transition** | | **51** | **55.7** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 43 | 57.9 | – |
| 4.1.1 | Voice and accountability index (z-score) | 0.4 | 41 | 64.8 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 0.0 | 46 | 51.0 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 3.1 | 57 | 61.1 | ↗ |
| 4.3 | TRANSPARENCY | | 52 | 42.8 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 41.0 | 49 | 41.0 | ↑ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.6 | 53 | 44.0 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 69.0 | 51 | 71.6 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# INDONESIA

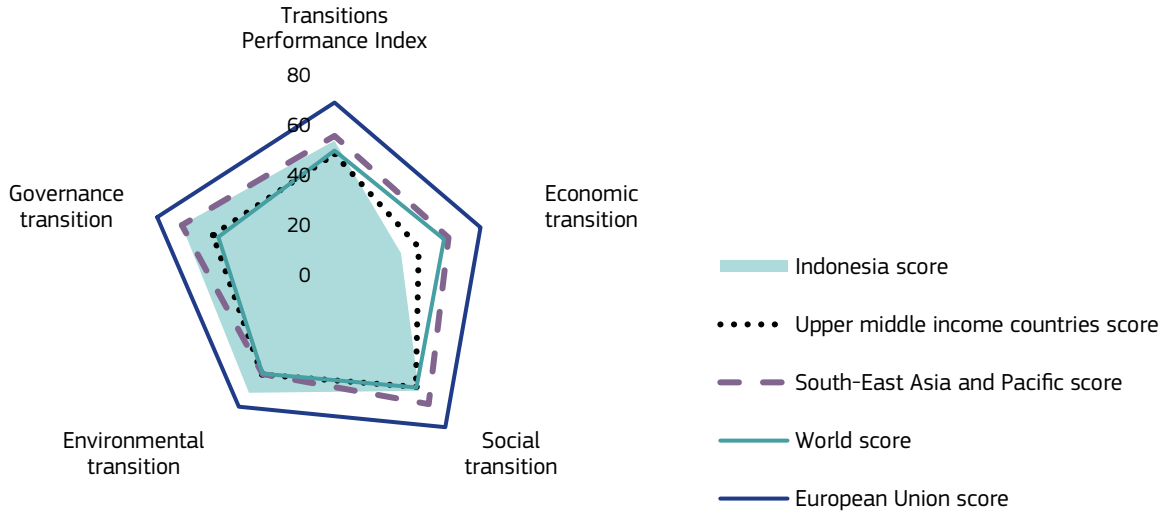
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **267.0** | **GDP PER CAPITA (current PPP$)** | **13 998.2** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **3 737.5** | **TRADE (% of GDP)** | **37.3** |

## RANKS AND SCORES

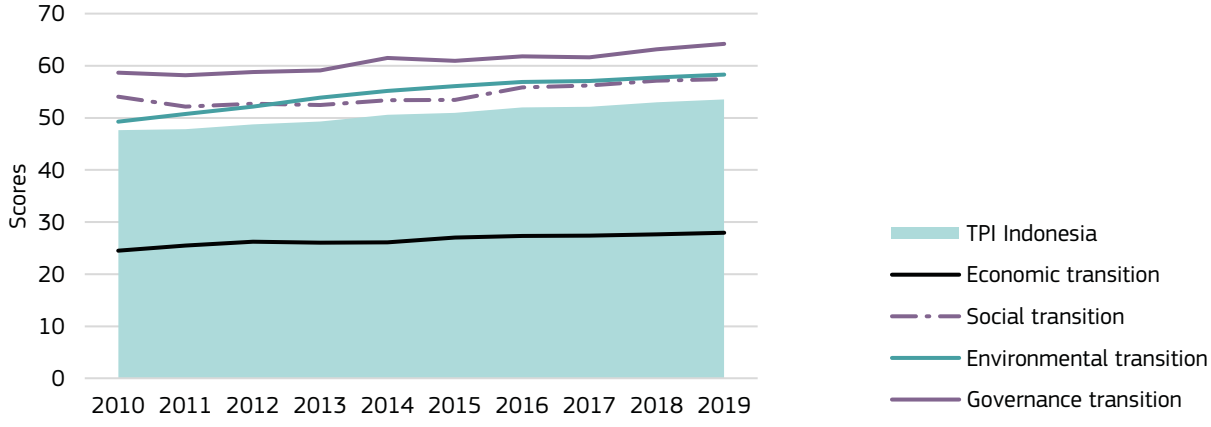
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Indonesia ranks** | **44** | **64** | **54** | **30** | **39** |
| Indonesia score | 53.5 | 28.0 | 57.5 | 58.3 | 64.2 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| South-East Asia and Pacific score | 55.6 | 47.9 | 64.0 | 49.0 | 64.1 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# INDONESIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **44** | **53.5** | ↗ |
| **1.** | **Economic transition** | | **64** | **28.0** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 8.3 | 65 | 33.3 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 13 998.2 | 59 | 18.7 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 65 | 11.1 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 25 411.6 | 64 | 16.9 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.3 | 65 | 5.3 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 48 | 40.1 | ↓ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 19.9 | 11 | 66.2 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.0 | 72 | 0.9 | ↓ |
| **2.** | **Social transition** | | **54** | **57.5** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 60.4 | 64 | 51.4 | ↗ |
| 2.2 | WORK AND INCLUSION | | 47 | 58.5 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 73.4 | 32 | 66.9 | ↗ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 31.2 | 61 | 55.4 | ↗ |
| 2.2.3 | Early childhood care and education (%) | 48.8 | 49 | 48.0 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 49.7 | 40 | 63.0 | – |
| 2.4 | EQUALITY | | 52 | 58.0 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 39.0 | 53 | 57.8 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 6.7 | 38 | 58.8 | ↘ |
| **3.** | **Environmental transition** | | **30** | **58.3** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 3.4 | 11 | 85.9 | ↘ |
| 3.2 | BIODIVERSITY | | 47 | 43.9 | ↑ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 24.4 | 61 | 24.4 | ↑ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 35.5 | 48 | 35.5 | ↑ |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 0.0 | 2 | 99.8 | – |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.9 | 41 | 31.6 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 14.4 | 18 | 71.8 | ↑ |
| **4.** | **Governance transition** | | **39** | **64.2** | ↗ |
| 4.1 | FUNDAMENTAL RIGHTS | | 49 | 47.4 | ↑ |
| 4.1.1 | Voice and accountability index (z-score) | 0.2 | 48 | 57.1 | ↑ |
| 4.1.2 | Rule of law index (z-score) | (0.3) | 59 | 37.6 | ↑ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.4 | 4 | 90.0 | – |
| 4.3 | TRANSPARENCY | | 49 | 44.4 | ↑ |
| 4.3.1 | Corruption perceptions index (0-100) | 38.0 | 54 | 38.0 | ↑ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.1 | 47 | 48.7 | ↑ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 30.3 | 12 | 96.6 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# IRAN

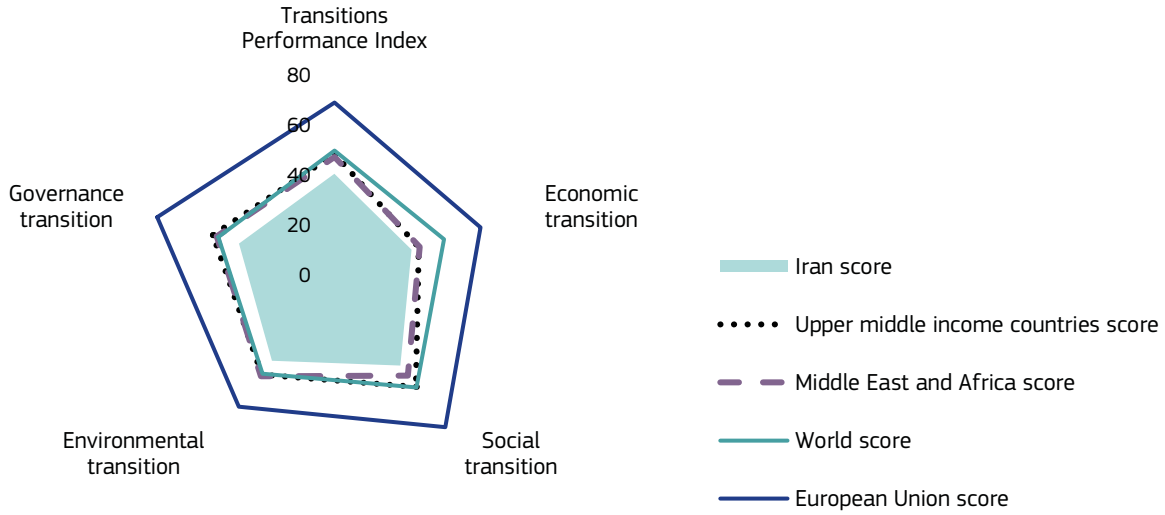
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **83.3** | **GDP PER CAPITA (current PPP$)** | **17 661.5** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **1 470.7** | **TRADE (% of GDP)** | **48.8** |

## RANKS AND SCORES

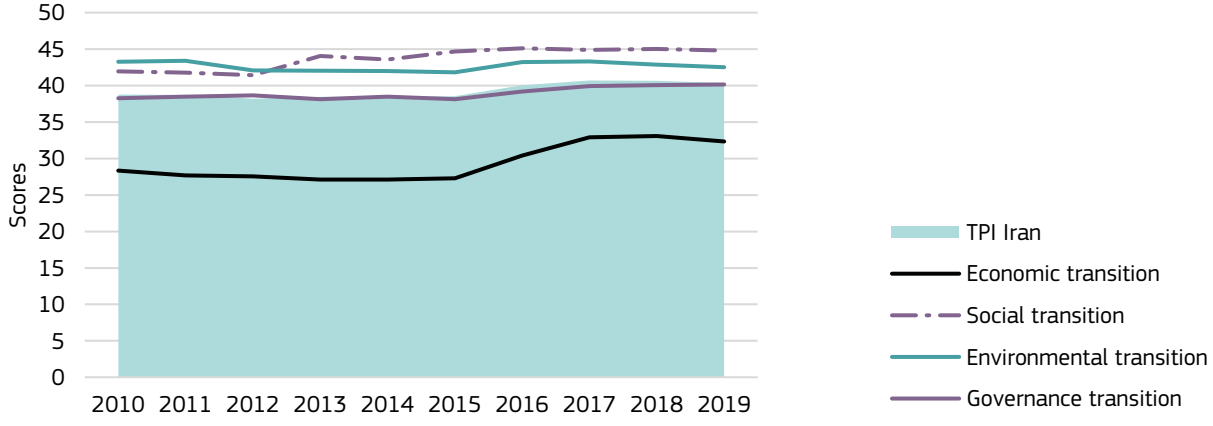
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Iran ranks** | **70** | **59** | **68** | **60** | **67** |
| Iran score | 40.4 | 32.3 | 44.8 | 42.5 | 40.2 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| Middle East and Africa score | 47.1 | 35.9 | 49.9 | 50.2 | 49.6 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# IRAN

| | | 2019 VALUE | 2019 RANK | 2019 SCORE | 2010-2019 SCORE PROGRESS |
|---|---|---|---|---|---|
| **TRANSITIONS PERFORMANCE INDEX** | | | **70** | **40.4** | – |
| **1.** | **Economic transition** | | **59** | **32.3** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 10.3 | 58 | 41.4 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 17 661.5 | 52 | 23.5 | – |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 43 | 26.2 | ↗ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 53 545.6 | 44 | 35.7 | ↓ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.8 | 43 | 16.6 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 63 | 33.3 | ↗ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 12.0 | 42 | 40.0 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.0 | 61 | 23.2 | ↑ |
| **2.** | **Social transition** | | **68** | **44.8** | ↗ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 64.9 | 49 | 66.3 | ↗ |
| 2.2 | WORK AND INCLUSION | | 70 | 17.0 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 43.7 | 66 | 7.5 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 55.8 | 69 | 20.3 | ↑ |
| 2.2.3 | Early childhood care and education (%) | 37.7 | 62 | 29.5 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 32.8 | 65 | 32.3 | ↗ |
| 2.4 | EQUALITY | | 59 | 52.5 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 40.8 | 58 | 53.8 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 5.9 | 53 | 48.8 | ↓ |
| **3.** | **Environmental transition** | | **60** | **42.5** | ↘ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 7.9 | 38 | 67.3 | – |
| 3.2 | BIODIVERSITY | | 40 | 52.1 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 45.0 | 38 | 45.0 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 36.2 | 45 | 36.2 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 0.3 | 7 | 98.1 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.3 | 60 | 20.9 | ↘ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 5.9 | 67 | 29.7 | ↓ |
| **4.** | **Governance transition** | | **67** | **40.2** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 72 | 16.9 | ↑ |
| 4.1.1 | Voice and accountability index (z-score) | (1.3) | 69 | 9.4 | ↑ |
| 4.1.2 | Rule of law index (z-score) | (0.7) | 68 | 24.4 | ↑ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 2.5 | 52 | 65.3 | – |
| 4.3 | TRANSPARENCY | | 72 | 19.6 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 28.0 | 68 | 28.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 8.6 | 72 | 14.0 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 30.7 | 13 | 96.3 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# ISRAEL

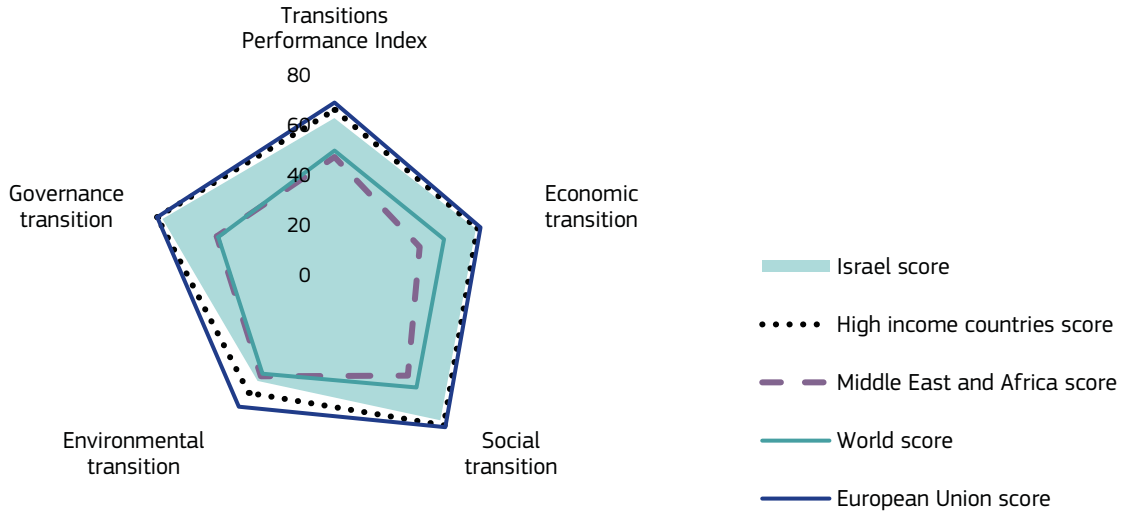
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **9.1** | **GDP PER CAPITA (current PPP$)** | **39 121.0** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **354.2** | **TRADE (% of GDP)** | **58.5** |
| **SUMMARY INNOVATION INDEX (0-100)** | **56.3** | | |

## RANKS AND SCORES

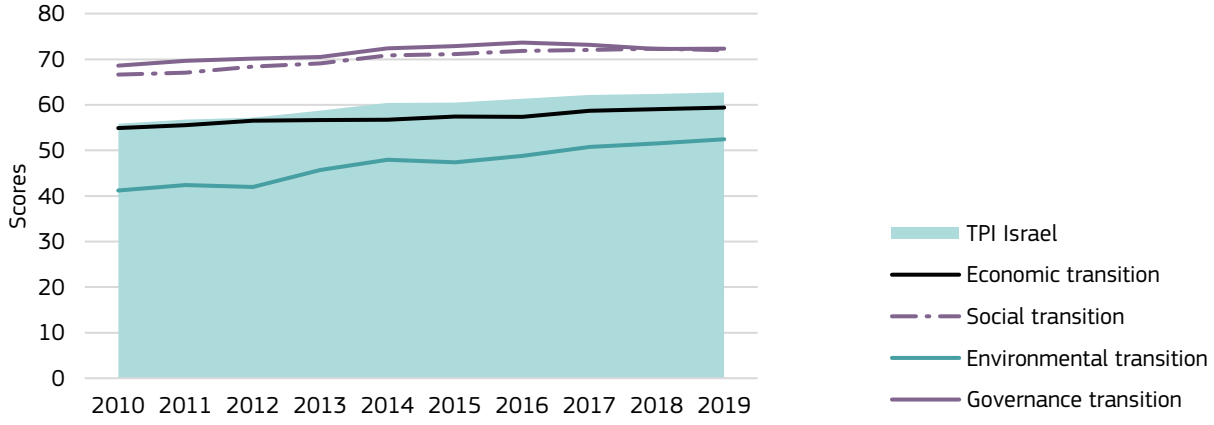
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Israel ranks** | **29** | **22** | **28** | **41** | **28** |
| Israel score | 62.7 | 59.4 | 71.9 | 52.4 | 72.3 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Middle East and Africa score | 47.1 | 35.9 | 49.9 | 50.2 | 49.6 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# ISRAEL

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **29** | **62.7** | ↗ |
| **1.** | **Economic transition** | | **22** | **59.4** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 14.2 | 43 | 57.0 | ↗ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 39 121.0 | 28 | 52.2 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 2 | 71.1 | ↗ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 76 939.9 | 24 | 51.3 | ↗ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 4.5 | 2 | 90.9 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 16 | 58.8 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 12.0 | 43 | 39.9 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 6.2 | 7 | 87.3 | – |
| **2.** | **Social transition** | | **28** | **71.9** | ↗ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 71.7 | 13 | 88.9 | – |
| 2.2 | WORK AND INCLUSION | | 5 | 83.5 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 78.3 | 16 | 76.7 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 11.2 | 14 | 84.0 | – |
| 2.2.3 | Early childhood care and education (%) | 77.7 | 3 | 96.2 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 54.8 | 28 | 72.4 | – |
| 2.4 | EQUALITY | | 57 | 53.0 | ↑ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 39.0 | 53 | 57.8 | ↑ |
| 2.4.2 | Income share held by the poorest quintile (%) | 5.1 | 65 | 38.8 | ↑ |
| **3.** | **Environmental transition** | | **41** | **52.4** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 9.9 | 51 | 58.9 | – |
| 3.2 | BIODIVERSITY | | 71 | 20.8 | ↗ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 20.9 | 68 | 20.9 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 26.1 | 59 | 26.1 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 12.6 | 62 | 9.9 | ↗ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 3.3 | 16 | 54.8 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 15.0 | 13 | 75.2 | ↑ |
| **4.** | **Governance transition** | | **28** | **72.3** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 31 | 79.1 | – |
| 4.1.1 | Voice and accountability index (z-score) | 0.7 | 36 | 74.3 | – |
| 4.1.2 | Rule of law index (z-score) | 1.0 | 28 | 84.0 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.5 | 39 | 74.7 | ↗ |
| 4.3 | TRANSPARENCY | | 21 | 61.8 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 61.0 | 25 | 61.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 3.8 | 9 | 62.4 | ↗ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 61.9 | 46 | 76.2 | ↗ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# JAPAN

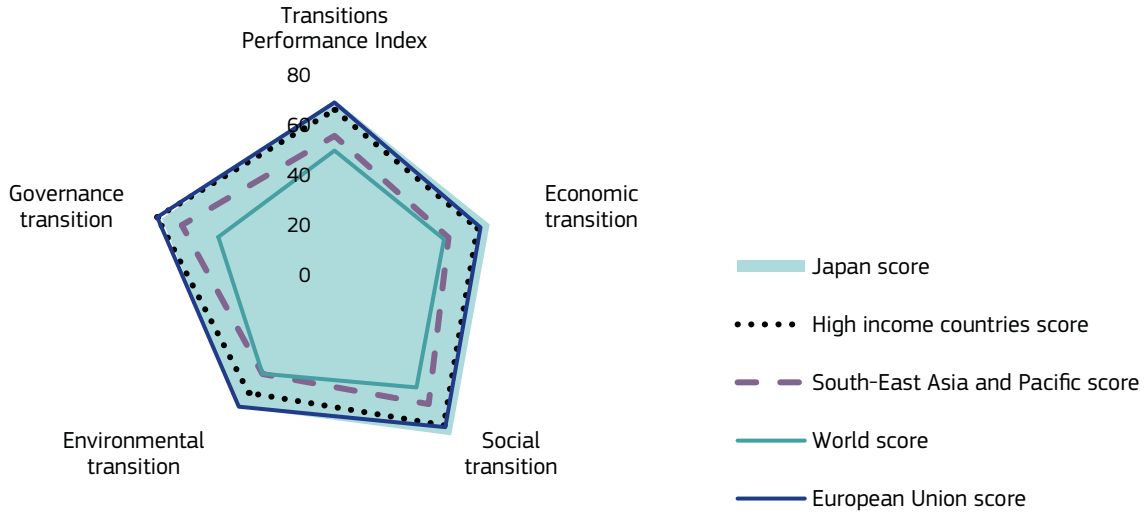
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **126.2** | **GDP PER CAPITA (current PPP$)** | **45 546.2** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **5 747.5** | **TRADE (% of GDP)** | **36.8** |

## RANKS AND SCORES

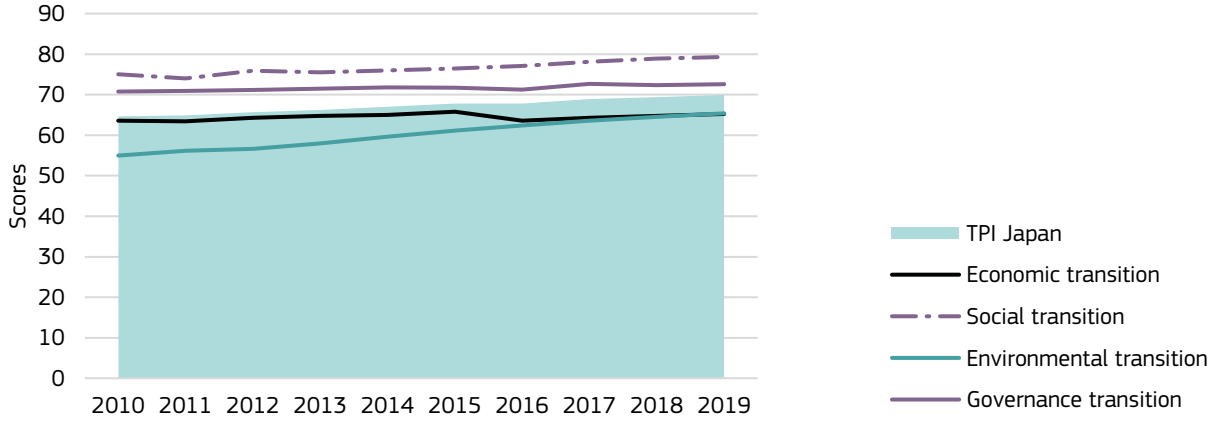
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Japan ranks** | **15** | **16** | **14** | **14** | **27** |
| Japan score | 70.0 | 65.3 | 79.3 | 65.4 | 72.6 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| South-East Asia and Pacific score | 55.6 | 47.9 | 64.0 | 49.0 | 64.1 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# JAPAN

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **15** | **70.0** | ↗ |
| **1.** | **Economic transition** | | **16** | **65.3** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 14.6 | 42 | 58.2 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 45 546.2 | 22 | 60.7 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 15 | 57.3 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 75 383.9 | 25 | 50.3 | – |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 3.2 | 5 | 64.3 | – |
| 1.4 | INDUSTRIAL BASE | | 4 | 80.7 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 20.7 | 9 | 69.1 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 13.8 | 1 | 98.0 | ↘ |
| **2.** | **Social transition** | | **14** | **79.3** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 72.6 | 2 | 92.0 | – |
| 2.2 | WORK AND INCLUSION | | 21 | 75.3 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 82.0 | 6 | 83.9 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 20.6 | 51 | 70.6 | ↗ |
| 2.2.3 | Early childhood care and education (%) | 60.5 | 28 | 67.5 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 59.9 | 13 | 81.5 | ↑ |
| 2.4 | EQUALITY | | 28 | 71.3 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 32.9 | 29 | 71.3 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 7.7 | 25 | 71.3 | ↘ |
| **3.** | **Environmental transition** | | **14** | **65.4** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 10.1 | 52 | 57.9 | – |
| 3.2 | BIODIVERSITY | | 35 | 56.3 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 65.8 | 30 | 65.8 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 67.0 | 26 | 67.0 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 11.8 | 60 | 16.0 | ↑ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 5.0 | 4 | 84.0 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 12.7 | 26 | 63.6 | ↑ |
| **4.** | **Governance transition** | | **27** | **72.6** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 18 | 89.2 | – |
| 4.1.1 | Voice and accountability index (z-score) | 1.0 | 26 | 84.7 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 1.5 | 16 | 93.7 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.3 | 2 | 93.5 | – |
| 4.3 | TRANSPARENCY | | 25 | 59.1 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 73.0 | 17 | 73.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.0 | 44 | 49.8 | ↗ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 237.7 | 71 | 0.0 | ↗ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# KENYA

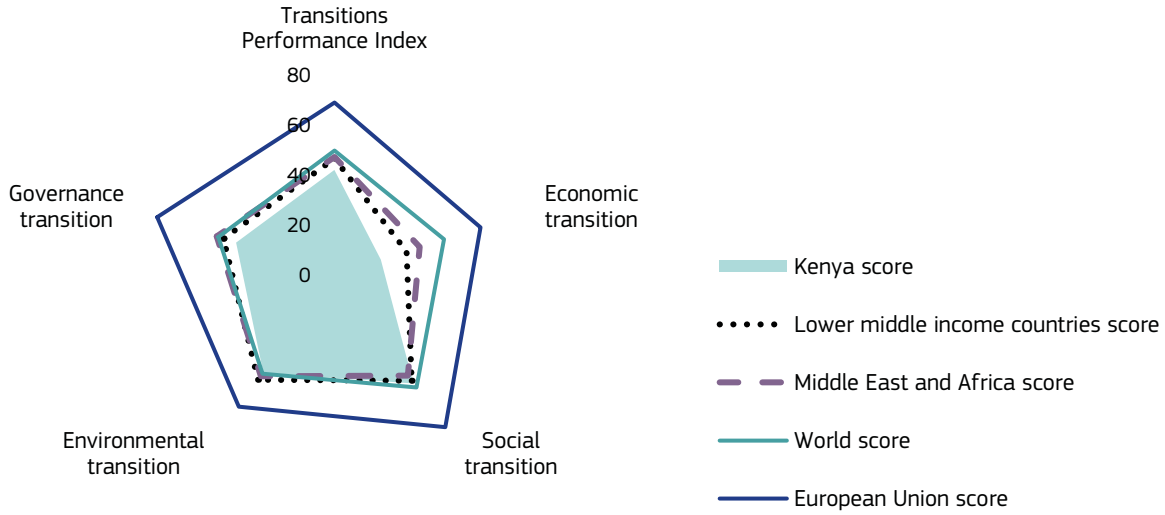
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **49.4** | **GDP PER CAPITA (current PPP$)** | **3 874.6** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **191.3** | **TRADE (% of GDP)** | **33.4** |

## RANKS AND SCORES

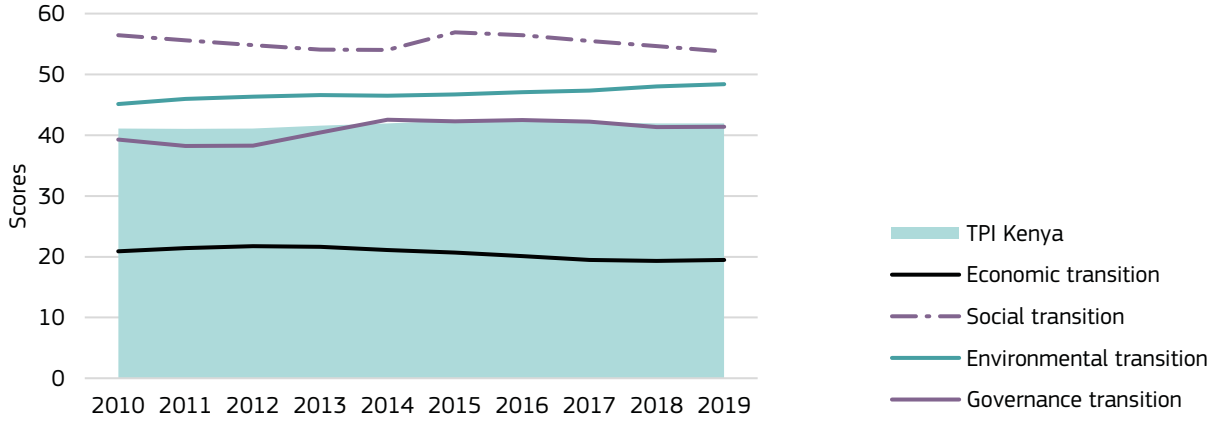
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Kenya ranks** | **69** | **71** | **58** | **51** | **65** |
| Kenya score | 41.9 | 19.5 | 53.8 | 48.4 | 41.4 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Lower middle income countries score | 46.4 | 30.3 | 52.5 | 52.0 | 46.6 |
| Middle East and Africa score | 47.1 | 35.9 | 49.9 | 50.2 | 49.6 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# KENYA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **69** | **41.9** | – |
| **1.** | **Economic transition** | | **71** | **19.5** | ↘ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 8.9 | 63 | 35.4 | – |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 3 874.6 | 72 | 5.2 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 68 | 10.3 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 7 187.6 | 72 | 4.8 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.8 | 46 | 15.7 | – |
| 1.4 | INDUSTRIAL BASE | | 70 | 19.2 | ↓ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 7.7 | 65 | 25.8 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.0 | 68 | 9.3 | ↘ |
| **2.** | **Social transition** | | **58** | **53.8** | ↘ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 57.0 | 70 | 40.1 | ↑ |
| 2.2 | WORK AND INCLUSION | | 33 | 68.6 | ↓ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 67.2 | 42 | 54.3 | ↓ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 7.3 | 3 | 89.5 | – |
| 2.2.3 | Early childhood care and education (%) | 53.0 | 41 | 55.1 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 46.1 | 53 | 56.6 | ↓ |
| 2.4 | EQUALITY | | 55 | 53.5 | ↑ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 40.8 | 58 | 53.8 | ↑ |
| 2.4.2 | Income share held by the poorest quintile (%) | 6.2 | 49 | 52.5 | – |
| **3.** | **Environmental transition** | | **51** | **48.4** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 1.0 | 1 | 95.7 | – |
| 3.2 | BIODIVERSITY | | 45 | 47.4 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 35.1 | 51 | 35.1 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 34.4 | 49 | 34.4 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 0.3 | 6 | 98.2 | – |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.2 | 63 | 19.9 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 6.1 | 64 | 30.5 | ↗ |
| **4.** | **Governance transition** | | **65** | **41.4** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 61 | 35.0 | ↑ |
| 4.1.1 | Voice and accountability index (z-score) | (0.4) | 60 | 35.9 | ↓ |
| 4.1.2 | Rule of law index (z-score) | (0.4) | 63 | 34.1 | ↑ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 4.9 | 62 | 50.7 | ↘ |
| 4.3 | TRANSPARENCY | | 71 | 26.8 | ↑ |
| 4.3.1 | Corruption perceptions index (0-100) | 27.0 | 71 | 27.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 7.3 | 71 | 26.7 | ↑ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 61.6 | 45 | 76.4 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# MALAYSIA

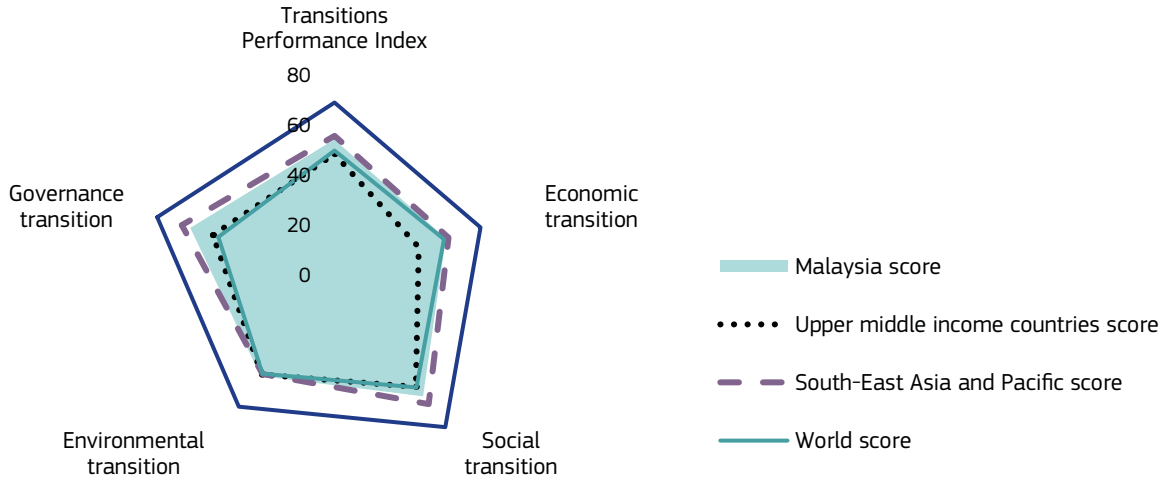
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **32.8** | **GDP PER CAPITA (current PPP$)** | **32 880.8** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **1 078.5** | **TRADE (% of GDP)** | **123.1** |

## RANKS AND SCORES

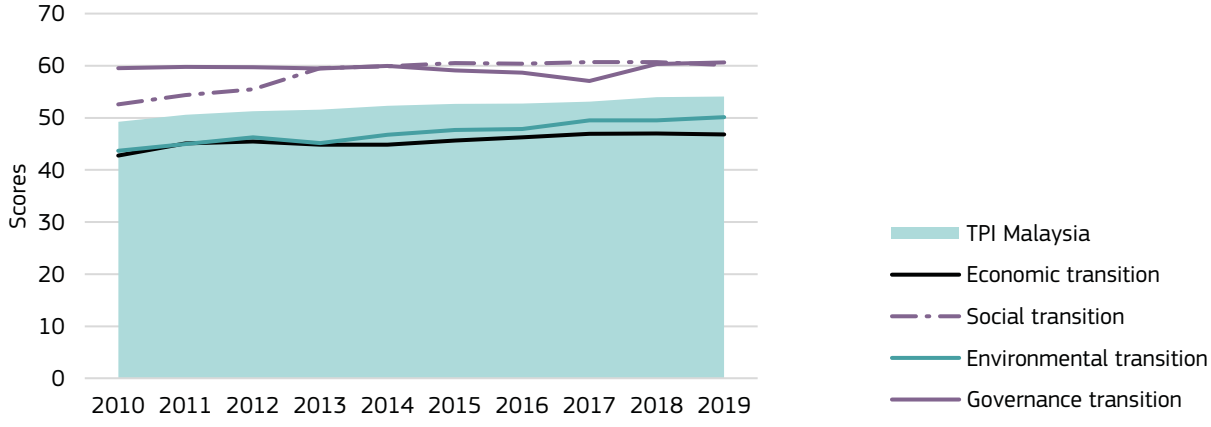
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Malaysia ranks** | **43** | **39** | **48** | **46** | **44** |
| Malaysia score | 54.1 | 46.8 | 60.2 | 50.1 | 60.6 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| South-East Asia and Pacific score | 55.6 | 47.9 | 64.0 | 49.0 | 64.1 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# MALAYSIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **43** | **54.1** | ↗ |
| **1.** | **Economic transition** | | **39** | **46.8** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 10.1 | 59 | 40.4 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 32 880.8 | 37 | 43.8 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 29 | 34.8 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 61 291.1 | 39 | 40.9 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.4 | 23 | 28.7 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 13 | 63.1 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 21.6 | 7 | 71.9 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.4 | 34 | 50.0 | ↗ |
| **2.** | **Social transition** | | **48** | **60.2** | ↑ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 65.3 | 44 | 67.7 | – |
| 2.2 | WORK AND INCLUSION | | 39 | 66.2 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 73.7 | 30 | 67.4 | ↗ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 29.7 | 60 | 57.6 | ↑ |
| 2.2.3 | Early childhood care and education (%) | 68.6 | 15 | 81.1 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 47.6 | 50 | 59.2 | ↗ |
| 2.4 | EQUALITY | | 60 | 51.9 | ↑ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 41.0 | 60 | 53.3 | ↑ |
| 2.4.2 | Income share held by the poorest quintile (%) | 5.8 | 54 | 47.5 | ↑ |
| **3.** | **Environmental transition** | | **46** | **50.1** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 8.7 | 44 | 63.6 | – |
| 3.2 | BIODIVERSITY | | 41 | 51.4 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 39.5 | 47 | 39.5 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 68.0 | 25 | 68.0 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 8.1 | 58 | 42.1 | ↗ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.1 | 36 | 34.7 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 10.2 | 45 | 50.8 | ↑ |
| **4.** | **Governance transition** | | **44** | **60.6** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 42 | 60.0 | ↑ |
| 4.1.1 | Voice and accountability index (z-score) | (0.1) | 56 | 46.7 | ↑ |
| 4.1.2 | Rule of law index (z-score) | 0.6 | 34 | 73.3 | ↗ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 2.1 | 47 | 68.4 | ↘ |
| 4.3 | TRANSPARENCY | | 47 | 47.1 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 47.0 | 40 | 47.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.3 | 51 | 47.2 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 56.3 | 41 | 79.8 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# MEXICO

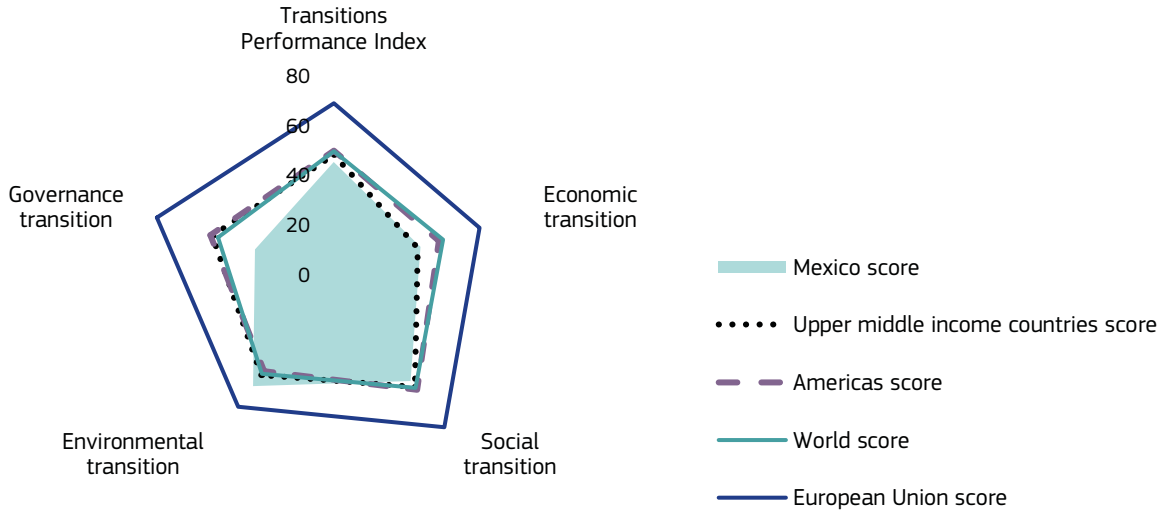
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **125.9** | **GDP PER CAPITA (current PPP$)** | **20 867.6** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **2 627.9** | **TRADE (% of GDP)** | **78.2** |

## RANKS AND SCORES

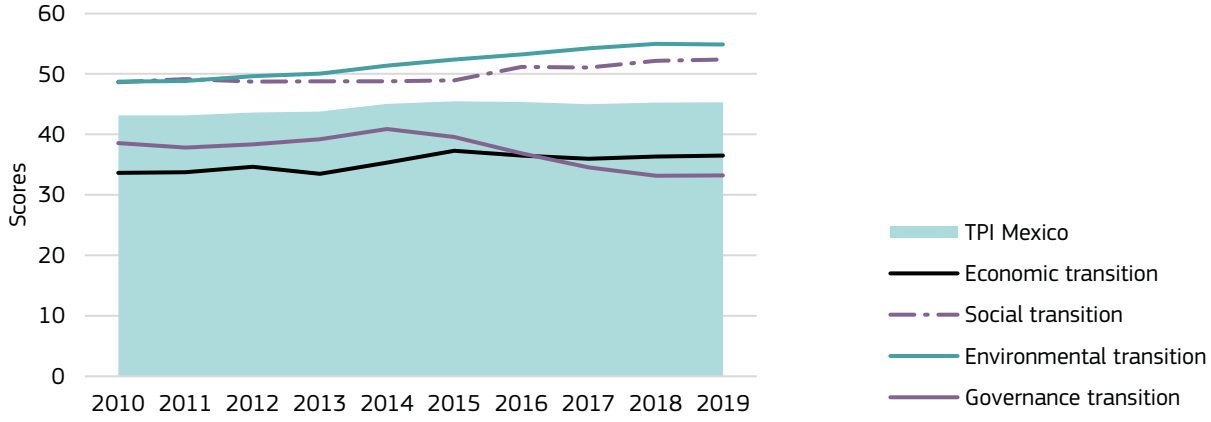
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Mexico ranks** | **64** | **55** | **59** | **39** | **71** |
| Mexico score | 45.3 | 36.5 | 52.4 | 54.9 | 33.2 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| America score | 49.8 | 44.2 | 56.7 | 47.5 | 52.0 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# MEXICO

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **64** | **45.3** | – |
| **1.** | **Economic transition** | | **55** | **36.5** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 10.4 | 57 | 41.6 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 20 867.6 | 46 | 27.8 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 56 | 18.7 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 41 554.2 | 52 | 27.7 | – |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.5 | 59 | 9.7 | ↘ |
| 1.4 | INDUSTRIAL BASE | | 32 | 49.1 | ↑ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 17.3 | 18 | 57.7 | ↗ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.1 | 48 | 36.1 | ↑ |
| **2.** | **Social transition** | | **59** | **52.4** | ↗ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 65.8 | 38 | 69.4 | ↗ |
| 2.2 | WORK AND INCLUSION | | 58 | 48.0 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 66.2 | 45 | 52.5 | – |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 36.6 | 63 | 47.7 | – |
| 2.2.3 | Early childhood care and education (%) | 43.8 | 57 | 39.6 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 43.3 | 57 | 51.5 | – |
| 2.4 | EQUALITY | | 67 | 43.3 | ↑ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 45.4 | 67 | 43.6 | ↗ |
| 2.4.2 | Income share held by the poorest quintile (%) | 5.4 | 60 | 42.5 | ↑ |
| **3.** | **Environmental transition** | | **39** | **54.9** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 5.7 | 20 | 76.1 | – |
| 3.2 | BIODIVERSITY | | 59 | 36.2 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 31.7 | 55 | 31.7 | ↗ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 15.1 | 64 | 15.1 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 1.8 | 28 | 87.4 | – |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.5 | 25 | 42.4 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 13.0 | 25 | 64.9 | ↑ |
| **4.** | **Governance transition** | | **71** | **33.2** | ↓ |
| 4.1 | FUNDAMENTAL RIGHTS | | 59 | 37.4 | ↓ |
| 4.1.1 | Voice and accountability index (z-score) | (0.0) | 52 | 49.8 | ↓ |
| 4.1.2 | Rule of law index (z-score) | (0.7) | 67 | 25.0 | ↓ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 29.1 | 70 | 5.7 | ↓ |
| 4.3 | TRANSPARENCY | | 55 | 40.4 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 28.0 | 68 | 28.0 | ↓ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.1 | 47 | 48.7 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 53.8 | 38 | 81.4 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# MOLDOVA

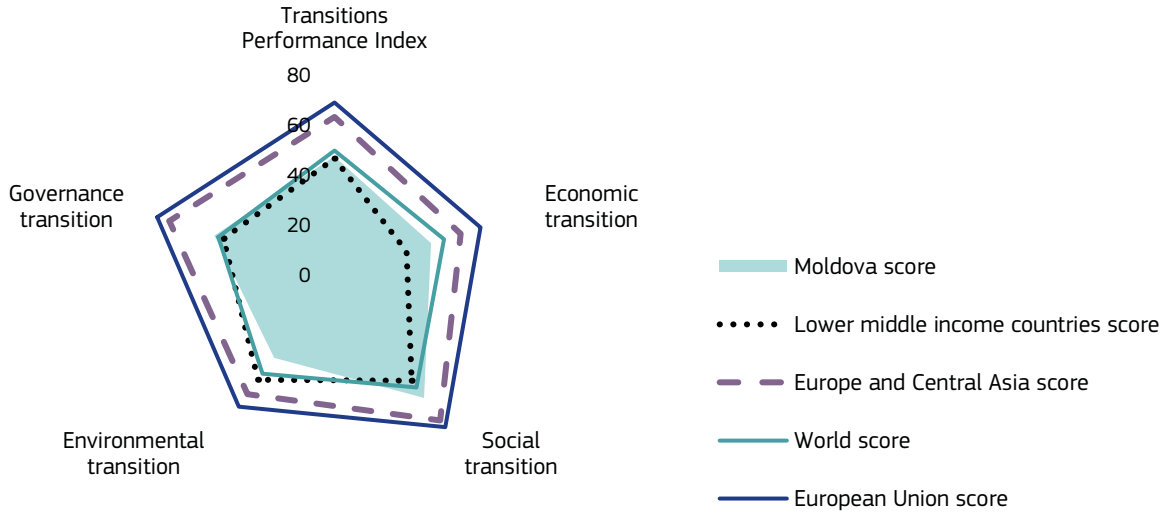
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **3.5** | **GDP PER CAPITA (current PPP$)** | **7 703.2** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **27.3** | **TRADE (% of GDP)** | **85.8** |

## RANKS AND SCORES

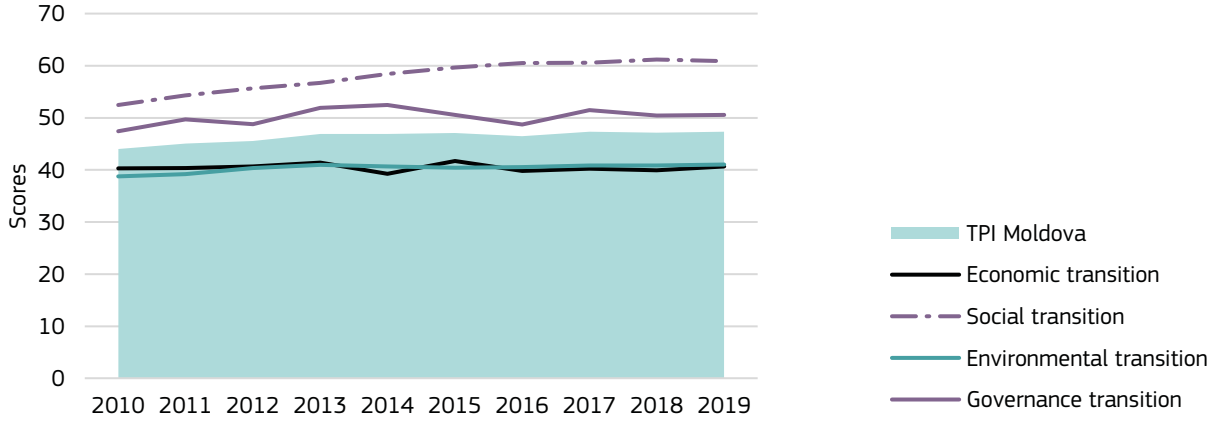
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Moldova ranks** | **59** | **49** | **47** | **61** | **56** |
| Moldova score | 47.3 | 40.7 | 60.9 | 41.0 | 50.6 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Lower middle income countries score | 46.4 | 30.3 | 52.5 | 52.0 | 46.6 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# MOLDOVA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **59** | **47.3** | ↗ |
| **1.** | **Economic transition** | | **49** | **40.7** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 19.8 | 14 | 79.2 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 7 703.2 | 70 | 10.3 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 70 | 9.1 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 19 648.4 | 69 | 13.1 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.3 | 66 | 5.1 | ↓ |
| 1.4 | INDUSTRIAL BASE | | 42 | 43.4 | ↑ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 11.3 | 48 | 37.6 | ↑ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.5 | 32 | 52.2 | ↑ |
| **2.** | **Social transition** | | **47** | **60.9** | ↑ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 60.7 | 63 | 52.2 | ↑ |
| 2.2 | WORK AND INCLUSION | | 57 | 50.8 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 30.9 | 71 | 0.0 | ↓ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 5.2 | 1 | 92.6 | – |
| 2.2.3 | Early childhood care and education (%) | 61.4 | 27 | 69.0 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 31.5 | 67 | 30.0 | – |
| 2.4 | EQUALITY | | 3 | 90.5 | ↑ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 25.7 | 4 | 87.3 | ↑ |
| 2.4.2 | Income share held by the poorest quintile (%) | 10.2 | 1 | 100.0 | ↑ |
| **3.** | **Environmental transition** | | **61** | **41.0** | – |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 2.8 | 6 | 88.3 | ↘ |
| 3.2 | BIODIVERSITY | | 65 | 31.3 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 23.6 | 63 | 23.6 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 10.8 | 66 | 10.8 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 1.8 | 27 | 87.5 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 0.9 | 68 | 14.6 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 6.0 | 66 | 30.0 | ↑ |
| **4.** | **Governance transition** | | **56** | **50.6** | ↗ |
| 4.1 | FUNDAMENTAL RIGHTS | | 58 | 39.9 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | (0.1) | 57 | 45.8 | ↘ |
| 4.1.2 | Rule of law index (z-score) | (0.4) | 65 | 34.0 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 4.1 | 58 | 54.9 | ↑ |
| 4.3 | TRANSPARENCY | | 53 | 41.5 | ↗ |
| 4.3.1 | Corruption perceptions index (0-100) | 33.0 | 65 | 33.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.3 | 52 | 47.1 | ↑ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 29.5 | 8 | 97.1 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# MONTENEGRO

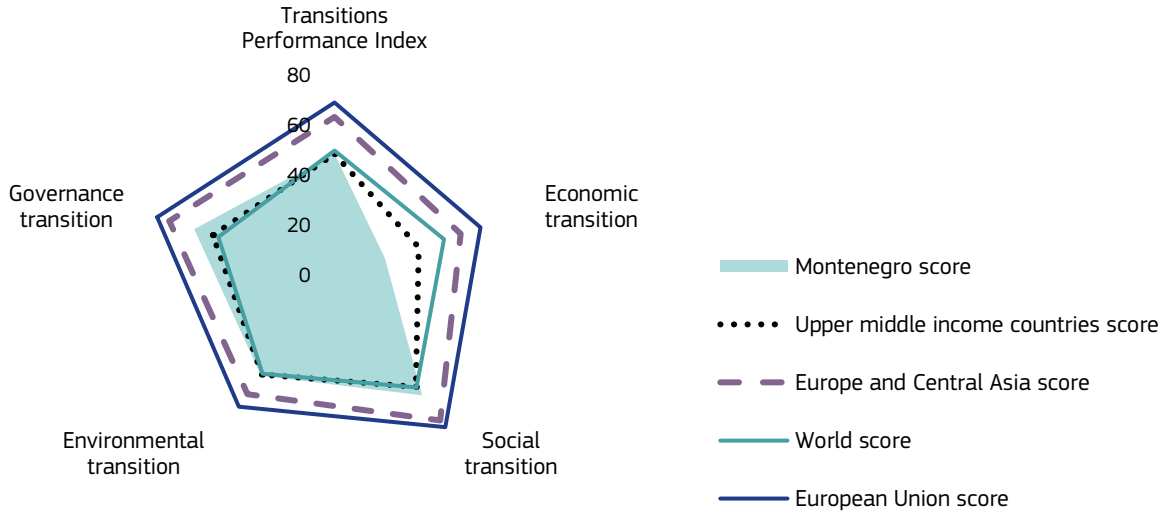
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **0.6** | **GDP PER CAPITA (current PPP$)** | **20 084.0** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **12.5** | **TRADE (% of GDP)** | **109.5** |
| **SUMMARY INNOVATION INDEX (0-100)** | **22.0** | | |

## RANKS AND SCORES

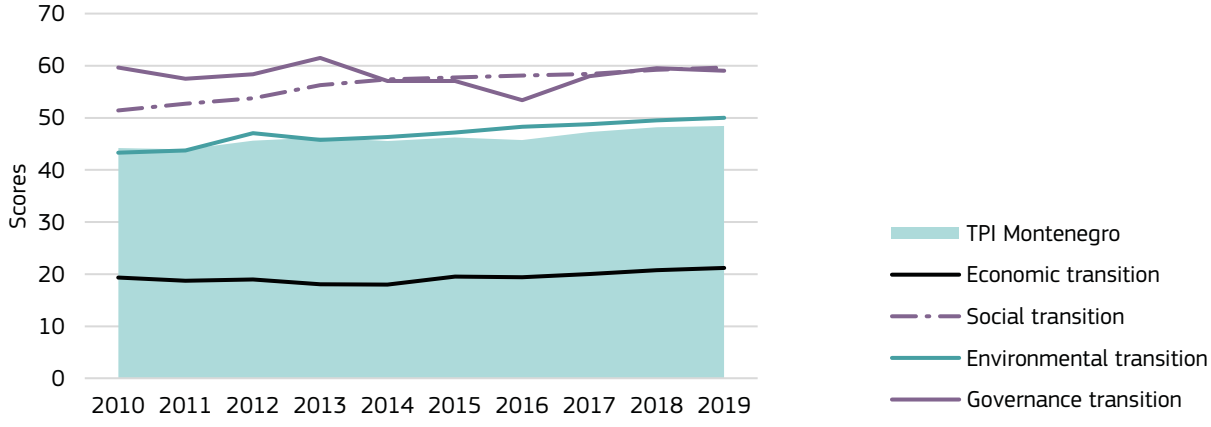
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Montenegro ranks** | **53** | **70** | **51** | **47** | **46** |
| Montenegro score | 48.4 | 21.2 | 59.6 | 50.0 | 59.0 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# MONTENEGRO

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **53** | **48.4** | ↗ |
| **1.** | **Economic transition** | | **70** | **21.2** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | N/A | N/A | N/A | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 20 084.0 | 48 | 26.8 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 55 | 18.9 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 46 900.8 | 47 | 31.3 | – |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.3 | 63 | 6.5 | – |
| 1.4 | INDUSTRIAL BASE | | 71 | 19.0 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 4.0 | 72 | 13.3 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.1 | 57 | 27.6 | ↘ |
| **2.** | **Social transition** | | **51** | **59.6** | ↑ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 66.1 | 35 | 70.4 | – |
| 2.2 | WORK AND INCLUSION | | 50 | 56.7 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 59.8 | 53 | 39.6 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 17.1 | 39 | 75.6 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 51.8 | 44 | 53.0 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 48.1 | 48 | 60.3 | ↑ |
| 2.4 | EQUALITY | | 56 | 53.3 | ↗ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 39.0 | 53 | 57.8 | ↗ |
| 2.4.2 | Income share held by the poorest quintile (%) | 5.2 | 63 | 40.0 | ↑ |
| **3.** | **Environmental transition** | | **47** | **50.0** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 5.6 | 19 | 76.8 | – |
| 3.2 | BIODIVERSITY | | 69 | 26.8 | ↓ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 12.5 | 71 | 12.5 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | N/A | N/A | N/A | ↑ |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 6.2 | 53 | 55.5 | ↓ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.5 | 26 | 41.9 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 10.9 | 41 | 54.5 | ↑ |
| **4.** | **Governance transition** | | **46** | **59.0** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 47 | 53.6 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 0.1 | 49 | 53.2 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 0.1 | 44 | 53.9 | ↗ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 2.2 | 49 | 67.5 | – |
| 4.3 | TRANSPARENCY | | 37 | 54.4 | ↗ |
| 4.3.1 | Corruption perceptions index (0-100) | 45.0 | 43 | 45.0 | ↗ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 3.9 | 12 | 60.6 | ↗ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 81.1 | 57 | 63.8 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# MOROCCO

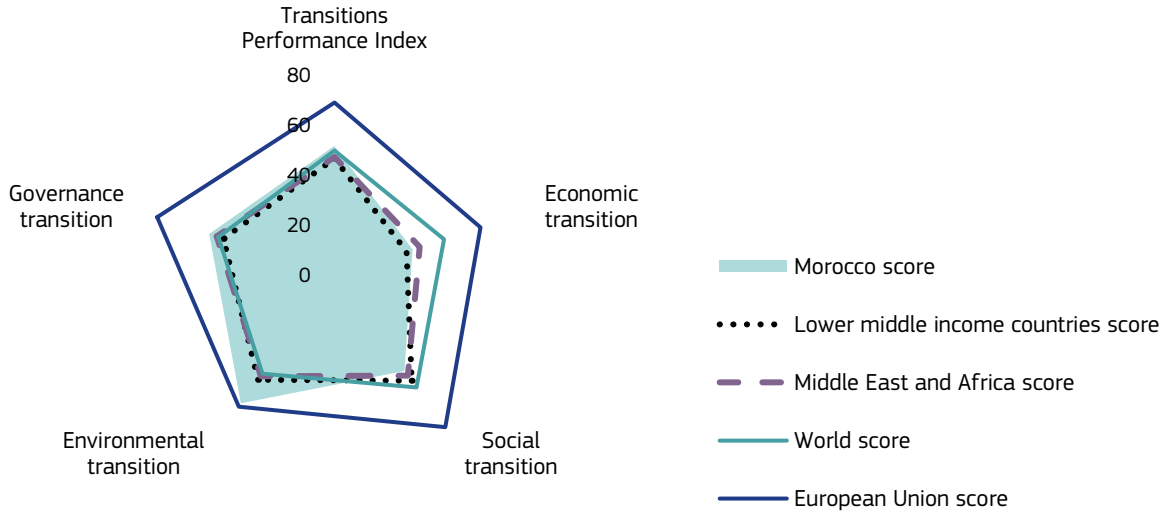
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **35.6** | **GDP PER CAPITA (current PPP$)** | **9 235.1** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **328.7** | **TRADE (% of GDP)** | **87.5** |

## RANKS AND SCORES

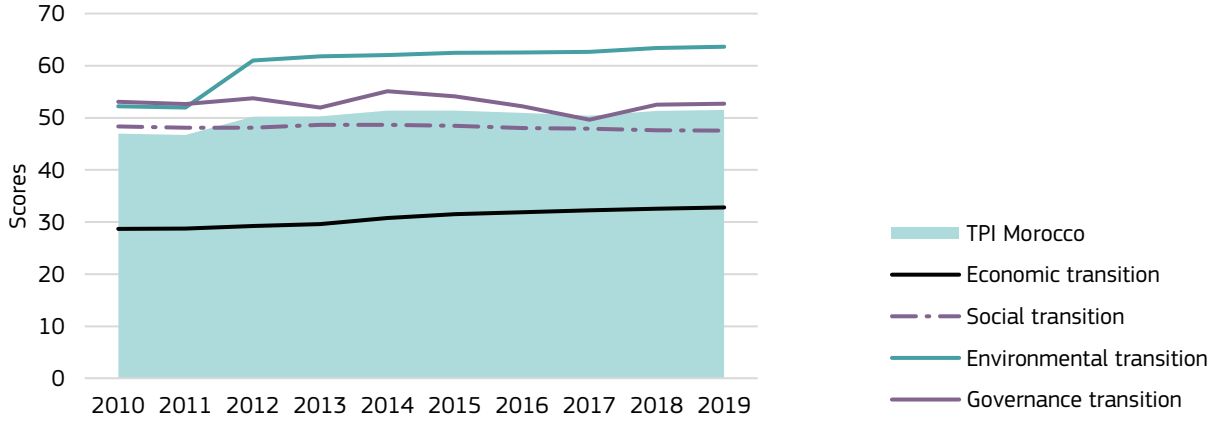
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Morocco ranks** | **47** | **58** | **66** | **18** | **55** |
| Morocco score | 51.5 | 32.8 | 47.5 | 63.6 | 52.7 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Lower middle income countries score | 46.4 | 30.3 | 52.5 | 52.0 | 46.6 |
| Middle East and Africa score | 47.1 | 35.9 | 49.9 | 50.2 | 49.6 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# MOROCCO

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **47** | **51.5** | ↗ |
| **1.** | **Economic transition** | | **58** | **32.8** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 12.5 | 49 | 50.1 | ↗ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 9 235.1 | 67 | 12.3 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 59 | 15.7 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 25 729.2 | 63 | 17.2 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.7 | 49 | 14.3 | – |
| 1.4 | INDUSTRIAL BASE | | 47 | 40.5 | ↑ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 15.7 | 25 | 52.3 | – |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.0 | 62 | 22.8 | ↑ |
| **2.** | **Social transition** | | **66** | **47.5** | ↘ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 65.0 | 47 | 66.8 | ↗ |
| 2.2 | WORK AND INCLUSION | | 68 | 20.4 | ↓ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 45.3 | 65 | 10.6 | ↓ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 52.5 | 67 | 25.0 | – |
| 2.2.3 | Early childhood care and education (%) | 38.4 | 60 | 30.7 | – |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 33.6 | 64 | 33.8 | ↓ |
| 2.4 | EQUALITY | | 54 | 57.2 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 39.5 | 56 | 56.7 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 6.7 | 38 | 58.8 | – |
| **3.** | **Environmental transition** | | **18** | **63.6** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 2.2 | 5 | 90.8 | – |
| 3.2 | BIODIVERSITY | | 23 | 71.7 | ↑ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 51.9 | 35 | 51.9 | ↑ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 82.6 | 18 | 82.6 | ↑ |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 1.5 | 22 | 89.6 | – |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.2 | 64 | 19.5 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 14.5 | 16 | 72.5 | ↗ |
| **4.** | **Governance transition** | | **55** | **52.7** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 62 | 34.9 | – |
| 4.1.1 | Voice and accountability index (z-score) | (0.7) | 62 | 25.4 | – |
| 4.1.2 | Rule of law index (z-score) | (0.1) | 51 | 44.5 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.4 | 38 | 75.6 | ↘ |
| 4.3 | TRANSPARENCY | | 54 | 40.5 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 43.0 | 45 | 43.0 | ↑ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 6.1 | 61 | 38.8 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 65.3 | 49 | 74.0 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# NEW ZEALAND

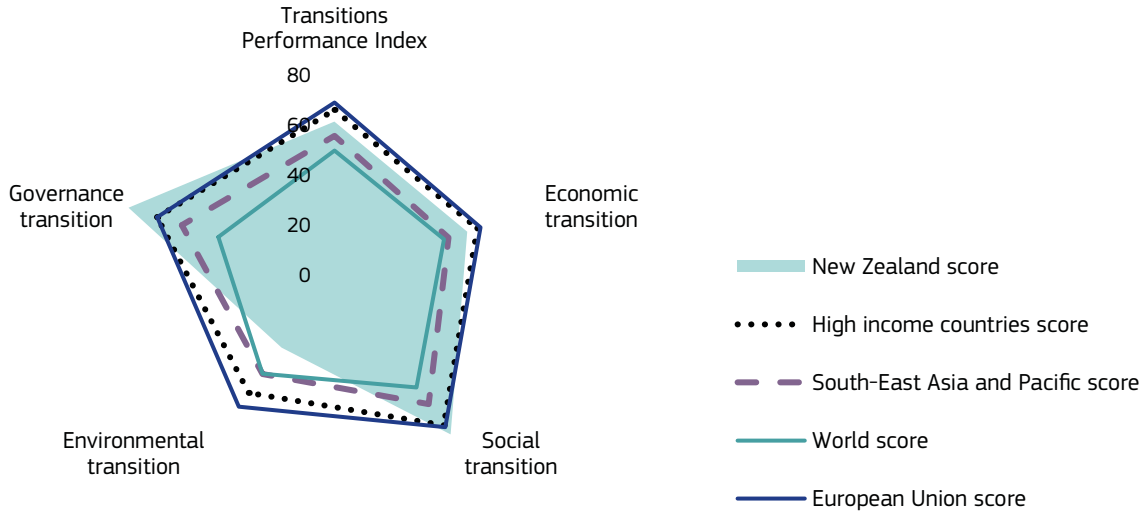
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **5.0** | **GDP PER CAPITA (current PPP$)** | **40 942.6** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **206.2** | **TRADE (% of GDP)** | **55.9** |

## RANKS AND SCORES

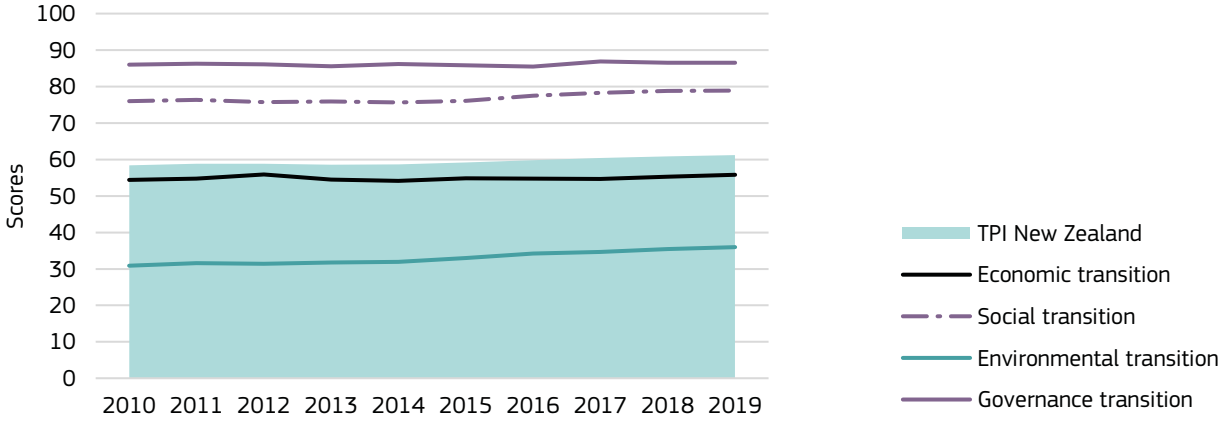
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **New Zealand ranks** | **33** | **26** | **15** | **67** | **1** |
| New Zealand score | 61.2 | 55.8 | 78.9 | 36.0 | 86.6 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| South-East Asia and Pacific score | 55.6 | 47.9 | 64.0 | 49.0 | 64.1 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# NEW ZEALAND

| | | 2019 VALUE | 2019 RANK | 2019 SCORE | 2010-2019 SCORE PROGRESS |
|---|---|---|---|---|---|
| **TRANSITIONS PERFORMANCE INDEX** | | | **33** | **61.2** | – |
| **1.** | **Economic transition** | | **26** | **55.8** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 19.2 | 16 | 76.6 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 40 942.6 | 26 | 54.6 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 28 | 35.2 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 68 518.5 | 31 | 45.7 | – |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.2 | 31 | 24.7 | – |
| 1.4 | INDUSTRIAL BASE | | 30 | 49.5 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 10.0 | 56 | 33.3 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 2.3 | 17 | 73.8 | ↘ |
| **2.** | **Social transition** | | **15** | **78.9** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 71.8 | 10 | 89.4 | – |
| 2.2 | WORK AND INCLUSION | | 4 | 85.7 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 84.3 | 3 | 88.7 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 12.6 | 24 | 82.0 | – |
| 2.2.3 | Early childhood care and education (%) | 72.4 | 11 | 87.3 | – |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 61.1 | 9 | 83.8 | ↗ |
| 2.4 | EQUALITY | | 38 | 64.9 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 34.9 | 40 | 66.9 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 6.7 | 38 | 58.8 | – |
| **3.** | **Environmental transition** | | **67** | **36.0** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 17.2 | 66 | 28.4 | ↑ |
| 3.2 | BIODIVERSITY | | 57 | 37.7 | ↗ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 43.0 | 39 | 43.0 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 29.3 | 55 | 29.3 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 7.9 | 56 | 43.6 | ↑ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.8 | 47 | 30.3 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 9.5 | 48 | 47.5 | ↑ |
| **4.** | **Governance transition** | | **1** | **86.6** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 4 | 95.9 | – |
| 4.1.1 | Voice and accountability index (z-score) | 1.6 | 2 | 94.8 | – |
| 4.1.2 | Rule of law index (z-score) | 1.9 | 5 | 97.0 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.7 | 17 | 84.6 | – |
| 4.3 | TRANSPARENCY | | 1 | 75.7 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 87.0 | 2 | 87.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 3.2 | 3 | 68.2 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 29.6 | 9 | 97.0 | – |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# NIGERIA

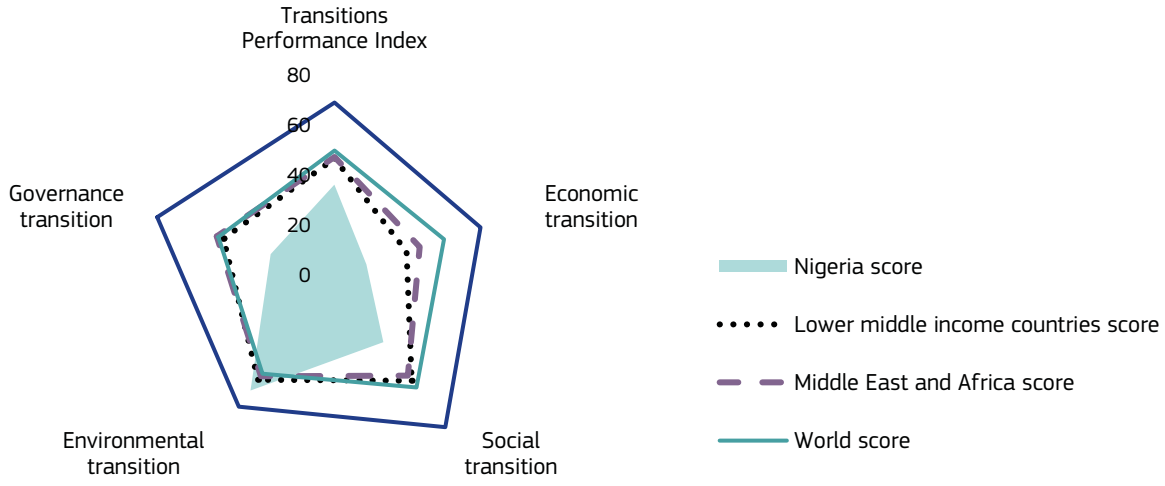
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **201.0** | **GDP PER CAPITA (current PPP$)** | **6 054.8** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **1 216.8** | **TRADE (% of GDP)** | **33.0** |

## RANKS AND SCORES

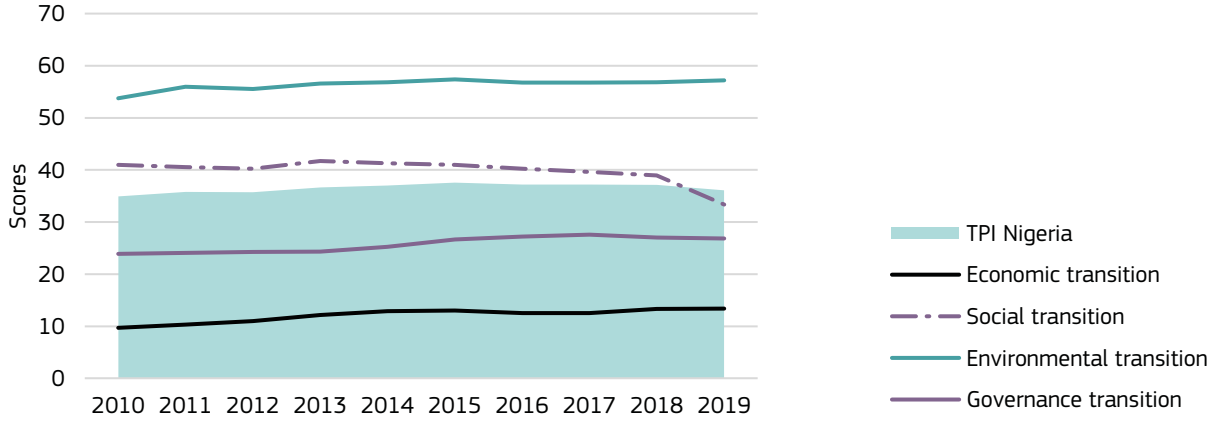
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Nigeria ranks** | **72** | **72** | **71** | **33** | **72** |
| Nigeria score | 36.1 | 13.4 | 33.3 | 57.2 | 26.8 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Lower middle income countries score | 46.4 | 30.3 | 52.5 | 52.0 | 46.6 |
| Middle East and Africa score | 47.1 | 35.9 | 49.9 | 50.2 | 49.6 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# NIGERIA

| | | 2019 VALUE | 2019 RANK | 2019 SCORE | 2010-2019 SCORE PROGRESS |
|---|---|---|---|---|---|
| **TRANSITIONS PERFORMANCE INDEX** | | | **72** | **36.1** | – |
| **1.** | **Economic transition** | | **72** | **13.4** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | N/A | N/A | N/A | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 6 054.8 | 71 | 8.1 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 72 | 7.8 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 19 354.1 | 70 | 12.9 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.1 | 72 | 2.6 | – |
| 1.4 | INDUSTRIAL BASE | | 69 | 20.6 | ↑ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 9.6 | 59 | 32.2 | ↑ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.0 | 70 | 3.3 | ↑ |
| **2.** | **Social transition** | | **71** | **33.3** | ↓ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 48.7 | 72 | 12.3 | ↑ |
| 2.2 | WORK AND INCLUSION | | 63 | 37.9 | ↓ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 41.5 | 70 | 3.1 | ↓ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 11.3 | 15 | 83.8 | – |
| 2.2.3 | Early childhood care and education (%) | 29.3 | 64 | 15.5 | – |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 31.9 | 66 | 30.7 | ↓ |
| 2.4 | EQUALITY | | 64 | 47.3 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 43.0 | 64 | 48.9 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 5.4 | 60 | 42.5 | – |
| **3.** | **Environmental transition** | | **33** | **57.2** | – |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 1.5 | 2 | 93.8 | – |
| 3.2 | BIODIVERSITY | | 25 | 69.3 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 79.6 | 19 | 79.6 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 59.1 | 32 | 59.1 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | N/A | N/A | N/A | ↑ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.9 | 42 | 30.9 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 7.0 | 63 | 34.8 | – |
| **4.** | **Governance transition** | | **72** | **26.8** | ↗ |
| 4.1 | FUNDAMENTAL RIGHTS | | 67 | 26.5 | ↑ |
| 4.1.1 | Voice and accountability index (z-score) | (0.4) | 61 | 34.2 | ↑ |
| 4.1.2 | Rule of law index (z-score) | (0.9) | 72 | 18.9 | ↑ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 34.5 | 71 | 1.1 | – |
| 4.3 | TRANSPARENCY | | 69 | 29.5 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 27.0 | 71 | 27.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 6.9 | 69 | 31.1 | ↗ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 29.8 | 10 | 96.9 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# NORTH MACEDONIA

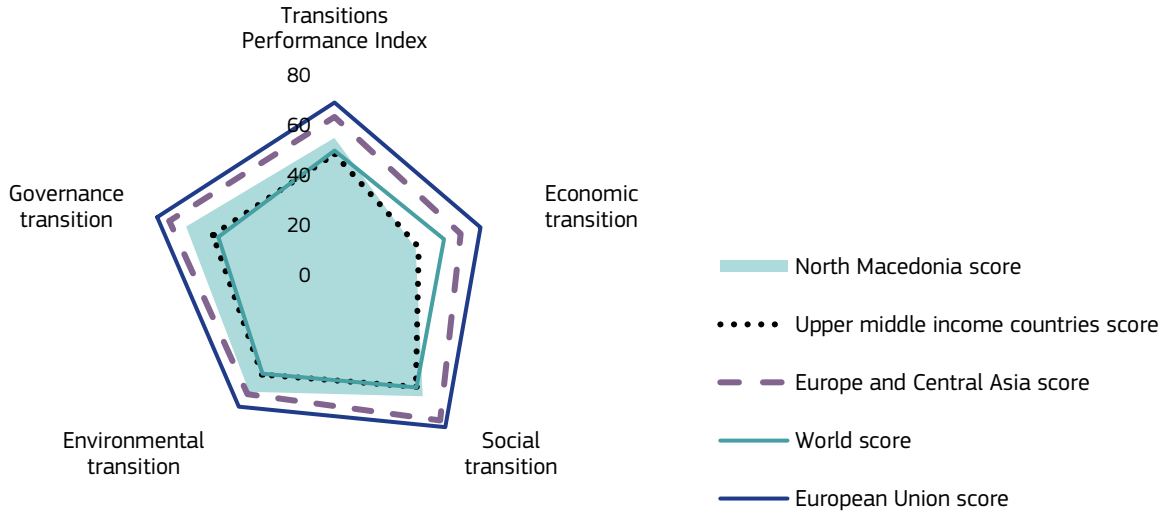
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **2.1** | **GDP PER CAPITA (current PPP$)** | **16 486.3** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **34.3** | **TRADE (% of GDP)** | **137.3** |
| **SUMMARY INNOVATION INDEX (0-100)** | **22.6** | | |

## RANKS AND SCORES

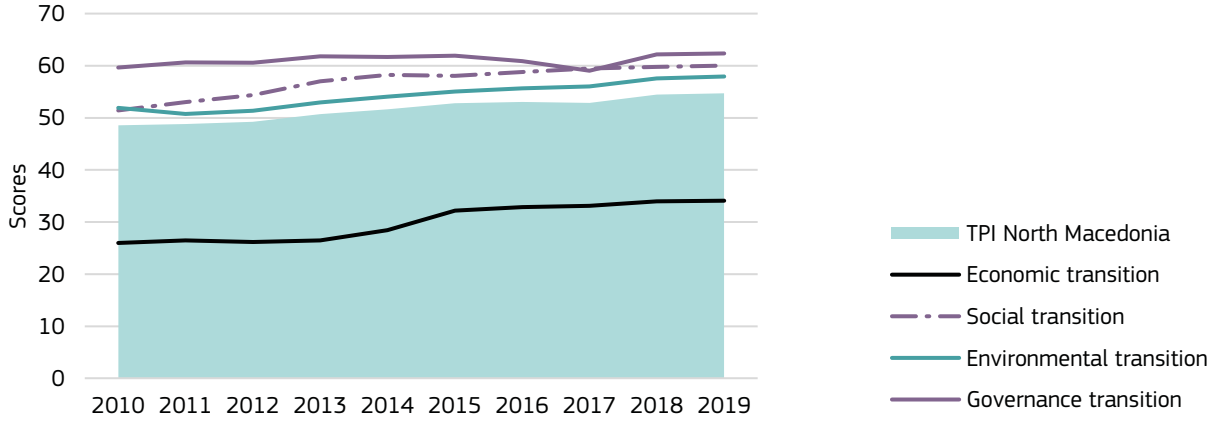
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **North Macedonia ranks** | **42** | **57** | **49** | **31** | **42** |
| North Macedonia score | 54.7 | 34.1 | 60.0 | 57.9 | 62.3 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# NORTH MACEDONIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **42** | **54.7** | ↗ |
| **1.** | **Economic transition** | | **57** | **34.1** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 11.5 | 52 | 45.8 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 16 486.3 | 53 | 22.0 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 58 | 15.9 | ↗ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 36 706.8 | 56 | 24.5 | – |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.4 | 61 | 7.3 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 43 | 42.6 | ↑ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 12.9 | 36 | 42.8 | ↑ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.2 | 42 | 42.3 | ↑ |
| **2.** | **Social transition** | | **49** | **60.0** | ↑ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 65.8 | 39 | 69.3 | – |
| 2.2 | WORK AND INCLUSION | | 59 | 43.9 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 56.1 | 57 | 32.2 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 21.2 | 52 | 69.8 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 29.3 | 65 | 15.5 | ↗ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 48.1 | 49 | 60.2 | – |
| 2.4 | EQUALITY | | 45 | 62.6 | ↑ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 34.2 | 34 | 68.4 | ↑ |
| 2.4.2 | Income share held by the poorest quintile (%) | 5.6 | 59 | 45.0 | ↑ |
| **3.** | **Environmental transition** | | **31** | **57.9** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 6.2 | 26 | 74.0 | ↘ |
| 3.2 | BIODIVERSITY | | 28 | 66.6 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 23.6 | 64 | 23.6 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 93.6 | 7 | 93.6 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 0.2 | 4 | 98.5 | – |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.9 | 40 | 32.2 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 11.8 | 33 | 59.0 | ↑ |
| **4.** | **Governance transition** | | **42** | **62.3** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 55 | 44.2 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | (0.0) | 53 | 49.6 | ↘ |
| 4.1.2 | Rule of law index (z-score) | (0.3) | 58 | 38.8 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.2 | 30 | 78.2 | ↑ |
| 4.3 | TRANSPARENCY | | 34 | 55.5 | ↗ |
| 4.3.1 | Corruption perceptions index (0-100) | 37.0 | 56 | 37.0 | ↓ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 3.2 | 4 | 67.8 | ↑ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 40.7 | 26 | 89.8 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# NORWAY

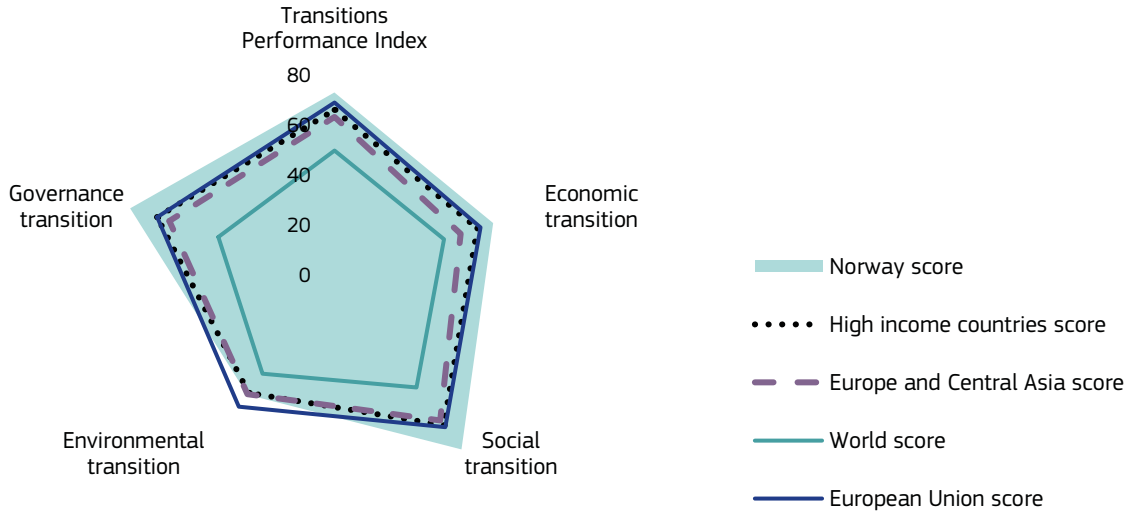
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **5.4** | **GDP PER CAPITA (current PPP$)** | **76 684.5** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **410.7** | **TRADE (% of GDP)** | **72.1** |
| **SUMMARY INNOVATION INDEX (0-100)** | **61.1** | | |

## RANKS AND SCORES

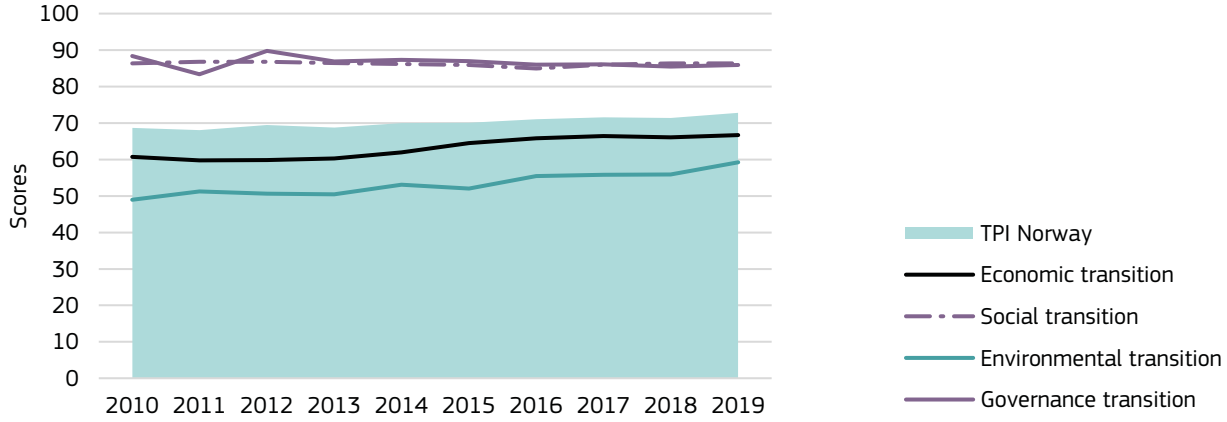
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Norway ranks** | **7** | **11** | **2** | **28** | **2** |
| Norway score | 72.8 | 66.7 | 86.4 | 59.3 | 85.9 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# NORWAY

| | | 2019 VALUE | 2019 RANK | 2019 SCORE | 2010-2019 SCORE PROGRESS |
|---|---|---|---|---|---|
| **TRANSITIONS PERFORMANCE INDEX** | | | **7** | **72.8** | – |
| **1.** | **Economic transition** | | **11** | **66.7** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 18.0 | 23 | 72.2 | ↗ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 76 684.5 | 1 | 100.0 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 7 | 64.4 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 129 989.2 | 4 | 86.7 | ↗ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 2.1 | 16 | 42.2 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 46 | 40.7 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 6.3 | 67 | 21.0 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 1.8 | 20 | 70.1 | ↘ |
| **2.** | **Social transition** | | **2** | **86.4** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 71.8 | 11 | 89.4 | – |
| 2.2 | WORK AND INCLUSION | | 3 | 85.8 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 79.2 | 10 | 78.4 | ↘ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 7.8 | 4 | 88.8 | – |
| 2.2.3 | Early childhood care and education (%) | 76.6 | 6 | 94.3 | – |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 62.2 | 7 | 85.9 | – |
| 2.4 | EQUALITY | | 9 | 84.9 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 27.0 | 7 | 84.4 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 8.9 | 10 | 86.3 | ↘ |
| **3.** | **Environmental transition** | | **28** | **59.3** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 10.3 | 53 | 57.1 | ↗ |
| 3.2 | BIODIVERSITY | | 32 | 61.7 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 51.3 | 36 | 51.3 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 55.9 | 33 | 55.9 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 0.8 | 14 | 94.1 | – |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.9 | 18 | 48.8 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 13.9 | 21 | 69.5 | ↑ |
| **4.** | **Governance transition** | | **2** | **85.9** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 1 | 96.7 | – |
| 4.1.1 | Voice and accountability index (z-score) | 1.7 | 1 | 95.8 | – |
| 4.1.2 | Rule of law index (z-score) | 2.0 | 2 | 97.5 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.5 | 6 | 89.4 | – |
| 4.3 | TRANSPARENCY | | 6 | 70.1 | ↓ |
| 4.3.1 | Corruption perceptions index (0-100) | 84.0 | 7 | 84.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 3.9 | 11 | 60.9 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 40.0 | 24 | 90.3 | – |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# PHILIPPINES

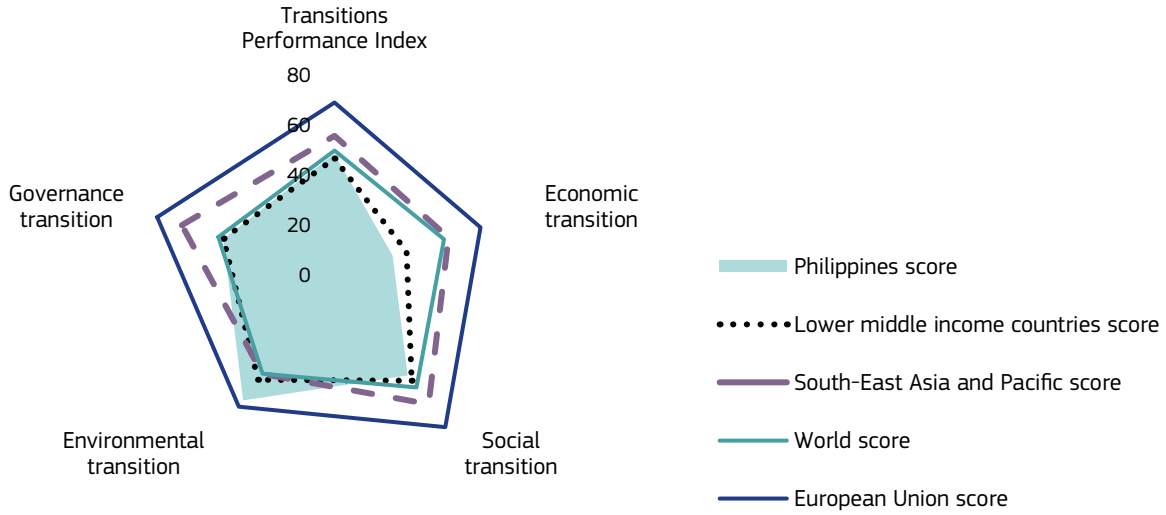
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **108.3** | **GDP PER CAPITA (current PPP$)** | **9 470.9** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **1 025.8** | **TRADE (% of GDP)** | **68.6** |

## RANKS AND SCORES

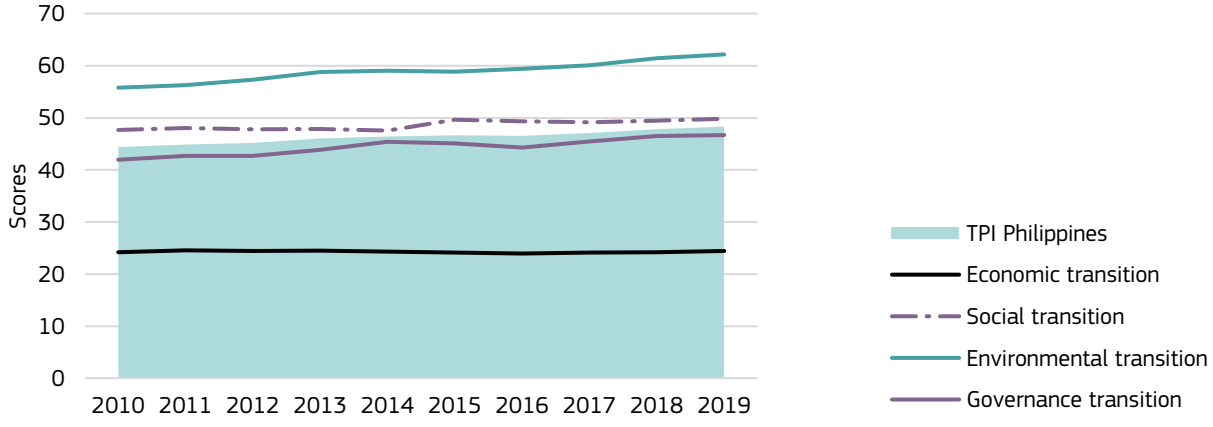
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Philippines ranks** | **54** | **68** | **63** | **23** | **62** |
| Philippines score | 48.3 | 24.4 | 49.8 | 62.2 | 46.7 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Lower middle income countries score | 46.4 | 30.3 | 52.5 | 52.0 | 46.6 |
| South-East Asia and Pacific score | 55.6 | 47.9 | 64.0 | 49.0 | 64.1 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# PHILIPPINES

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **54** | **48.3** | ↗ |
| **1.** | **Economic transition** | | **68** | **24.4** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 5.5 | 68 | 21.9 | ↗ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 9 470.9 | 66 | 12.6 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 71 | 8.5 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 20 433.0 | 68 | 13.6 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.2 | 70 | 3.3 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 39 | 45.5 | ↓ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 19.1 | 13 | 63.5 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.0 | 63 | 18.5 | ↓ |
| **2.** | **Social transition** | | **63** | **49.8** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 59.4 | 67 | 47.9 | ↗ |
| 2.2 | WORK AND INCLUSION | | 45 | 59.2 | ↘ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 65.7 | 46 | 51.3 | – |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 31.5 | 62 | 55.0 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 69.9 | 13 | 83.1 | ↘ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 42.3 | 59 | 49.7 | ↘ |
| 2.4 | EQUALITY | | 66 | 45.9 | ↗ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 44.4 | 65 | 45.8 | ↗ |
| 2.4.2 | Income share held by the poorest quintile (%) | 5.7 | 57 | 46.3 | ↑ |
| **3.** | **Environmental transition** | | **23** | **62.2** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 1.5 | 3 | 93.6 | – |
| 3.2 | BIODIVERSITY | | 55 | 38.7 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 40.9 | 43 | 40.9 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 36.5 | 44 | 36.5 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | N/A | N/A | N/A | ↑ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.5 | 27 | 41.1 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 15.1 | 12 | 75.3 | ↗ |
| **4.** | **Governance transition** | | **62** | **46.7** | ↗ |
| 4.1 | FUNDAMENTAL RIGHTS | | 56 | 41.6 | ↗ |
| 4.1.1 | Voice and accountability index (z-score) | 0.0 | 50 | 51.5 | – |
| 4.1.2 | Rule of law index (z-score) | (0.5) | 66 | 31.6 | ↗ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 6.5 | 66 | 44.3 | ↑ |
| 4.3 | TRANSPARENCY | | 57 | 39.5 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 36.0 | 57 | 36.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.8 | 56 | 41.9 | – |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 39.3 | 23 | 90.8 | ↗ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# RUSSIA

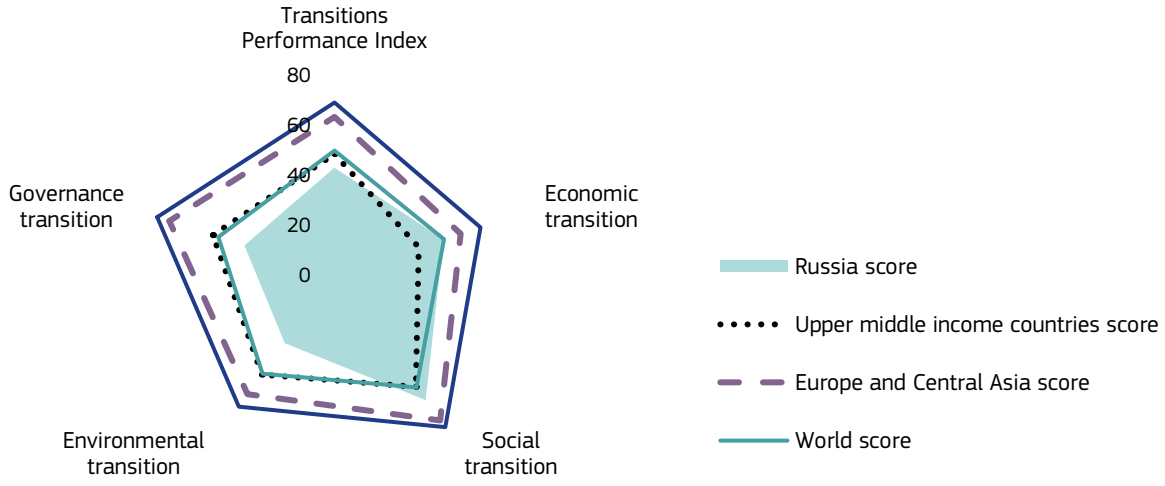
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **146.7** | **GDP PER CAPITA (current PPP$)** | **29 642.4** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **4 349.4** | **TRADE (% of GDP)** | **49.1** |
| **SUMMARY INNOVATION INDEX (0-100)** | **23.4** | | |

## RANKS AND SCORES

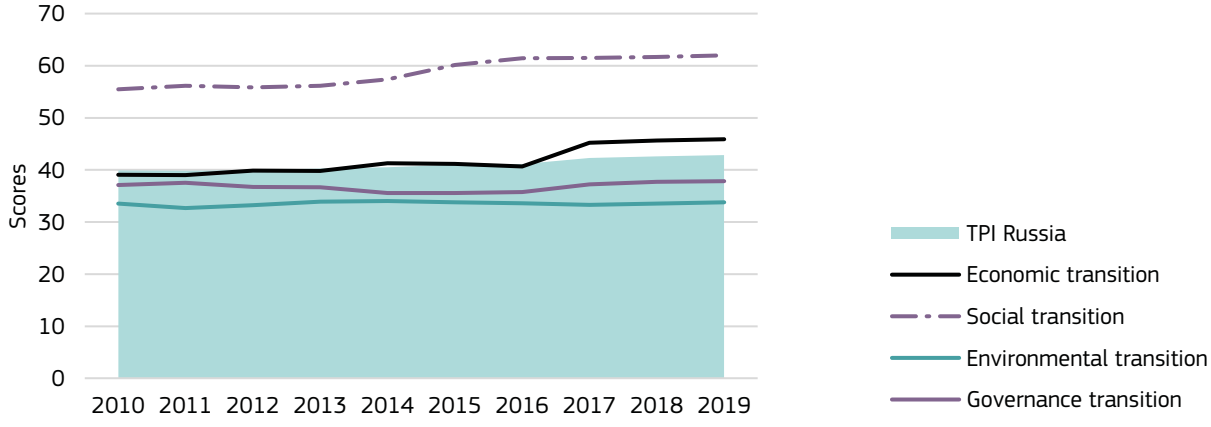
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Russia ranks** | **68** | **40** | **44** | **69** | **68** |
| Russia score | 42.9 | 45.9 | 62.0 | 33.8 | 37.9 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# RUSSIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **68** | **42.9** | ↗ |
| **1.** | **Economic transition** | | **40** | **45.9** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 16.9 | 30 | 67.8 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 29 642.4 | 40 | 39.5 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 41 | 28.7 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 52 971.5 | 45 | 35.3 | ↗ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.1 | 34 | 22.1 | ↘ |
| 1.4 | INDUSTRIAL BASE | | 50 | 39.7 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 12.3 | 39 | 41.0 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.2 | 46 | 37.8 | ↘ |
| **2.** | **Social transition** | | **44** | **62.0** | ↗ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 59.1 | 68 | 47.0 | ↑ |
| 2.2 | WORK AND INCLUSION | | 30 | 71.4 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 78.4 | 14 | 76.8 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 16.8 | 38 | 75.9 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 50.9 | 45 | 51.5 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 54.5 | 32 | 71.8 | ↗ |
| 2.4 | EQUALITY | | 46 | 61.8 | ↗ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 37.5 | 50 | 61.1 | ↗ |
| 2.4.2 | Income share held by the poorest quintile (%) | 7.1 | 36 | 63.8 | ↑ |
| **3.** | **Environmental transition** | | **69** | **33.8** | – |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 14.8 | 63 | 38.4 | ↘ |
| 3.2 | BIODIVERSITY | | 51 | 41.6 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 27.4 | 58 | 27.4 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 27.3 | 57 | 27.3 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 0.2 | 4 | 98.5 | – |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.9 | 43 | 30.9 | ↗ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 4.8 | 70 | 24.2 | – |
| **4.** | **Governance transition** | | **68** | **37.9** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 71 | 17.6 | ↓ |
| 4.1.1 | Voice and accountability index (z-score) | (1.1) | 66 | 14.5 | ↓ |
| 4.1.2 | Rule of law index (z-score) | (0.8) | 71 | 20.7 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 8.2 | 67 | 38.5 | ↑ |
| 4.3 | TRANSPARENCY | | 66 | 36.7 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 28.0 | 68 | 28.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.8 | 55 | 42.5 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 16.5 | 1 | 100.0 | – |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# SAUDI ARABIA

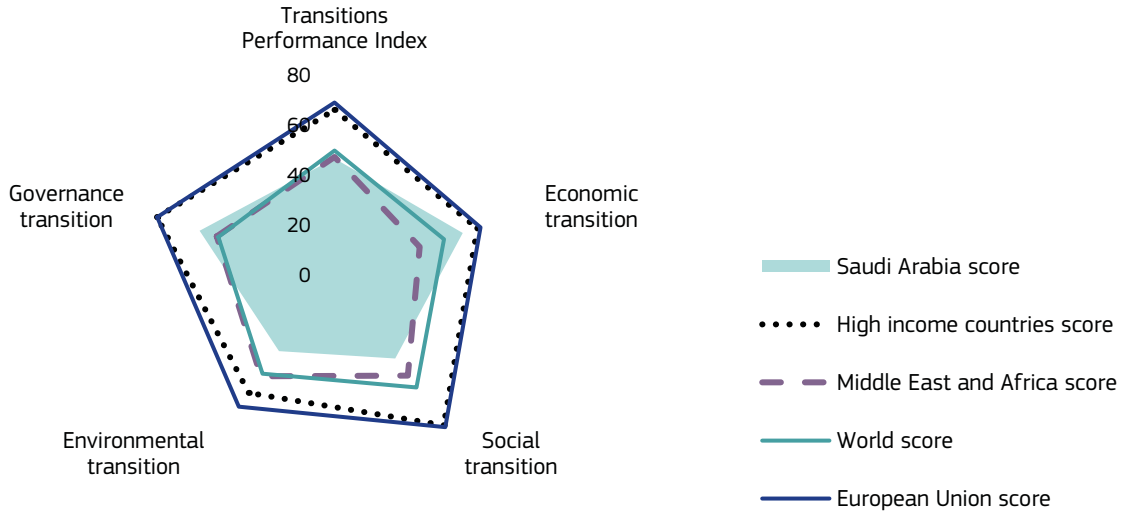
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **34.1** | **GDP PER CAPITA (current PPP$)** | **55 704.3** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **1 898.5** | **TRADE (% of GDP)** | **62.2** |

## RANKS AND SCORES

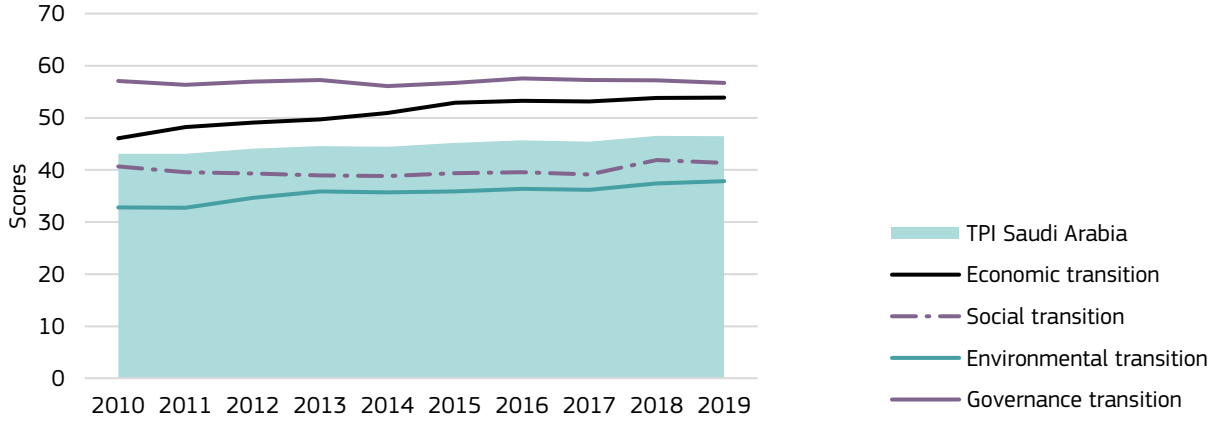
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Saudi Arabia ranks** | **60** | **30** | **69** | **65** | **49** |
| Saudi Arabia score | 46.5 | 53.9 | 41.3 | 37.8 | 56.7 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Middle East and Africa score | 47.1 | 35.9 | 49.9 | 50.2 | 49.6 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# SAUDI ARABIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **60** | **46.5** | ↗ |
| **1.** | **Economic transition** | | **30** | **53.9** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 14.6 | 41 | 58.5 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 55 704.3 | 10 | 74.3 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 20 | 48.9 | ↘ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 122 167.2 | 5 | 81.4 | ↘ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.8 | 45 | 16.3 | ↘ |
| 1.4 | INDUSTRIAL BASE | | 51 | 39.0 | ↑ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 12.8 | 37 | 42.7 | ↑ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.1 | 51 | 33.4 | ↑ |
| **2.** | **Social transition** | | **69** | **41.3** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 65.5 | 40 | 68.3 | – |
| 2.2 | WORK AND INCLUSION | | 69 | 18.0 | ↘ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 58.9 | 55 | 37.7 | ↓ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 64.9 | 72 | 7.3 | ↑ |
| 2.2.3 | Early childhood care and education (%) | 14.1 | 68 | 0.0 | ↗ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 41.2 | 61 | 47.6 | ↘ |
| 2.4 | EQUALITY | | 69 | 31.8 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 45.9 | 68 | 42.4 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 1.7 | 72 | 0.0 | ↗ |
| **3.** | **Environmental transition** | | **65** | **37.8** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 15.0 | 64 | 37.4 | ↑ |
| 3.2 | BIODIVERSITY | | 62 | 34.2 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 23.1 | 65 | 23.1 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 17.7 | 61 | 17.7 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 1.5 | 23 | 89.3 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.3 | 29 | 38.5 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 8.3 | 56 | 41.4 | ↗ |
| **4.** | **Governance transition** | | **49** | **56.7** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 64 | 30.3 | – |
| 4.1.1 | Voice and accountability index (z-score) | (1.6) | 72 | 5.0 | ↑ |
| 4.1.2 | Rule of law index (z-score) | 0.1 | 43 | 55.6 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.3 | 34 | 77.3 | – |
| 4.3 | TRANSPARENCY | | 46 | 48.0 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 49.0 | 38 | 49.0 | ↗ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.3 | 50 | 47.4 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 23.2 | 1 | 100.0 | – |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# SERBIA

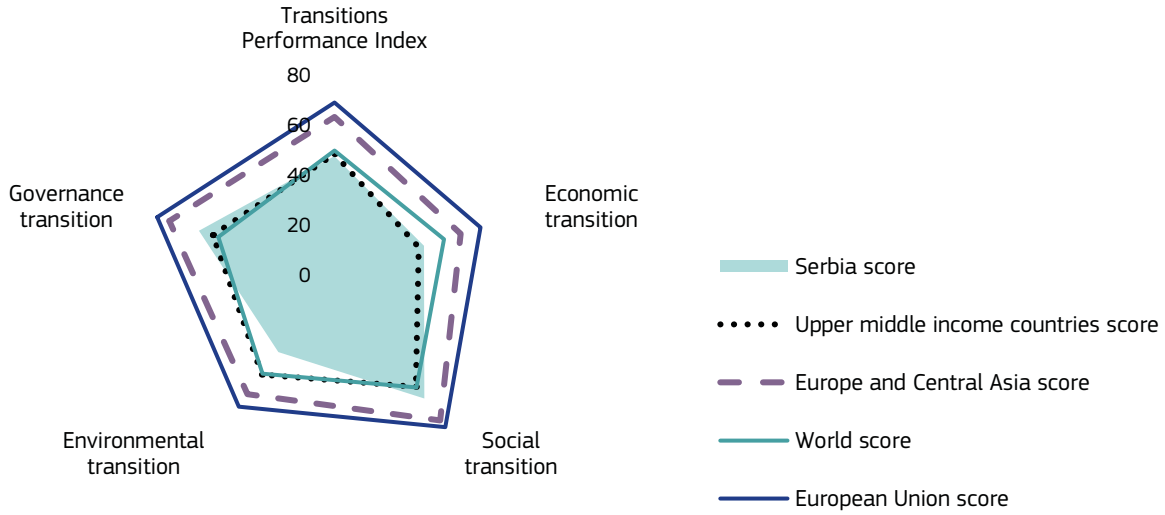
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **7.0** | **GDP PER CAPITA (current PPP$)** | **18 564.5** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **129.3** | **TRADE (% of GDP)** | **112.6** |
| **SUMMARY INNOVATION INDEX (0-100)** | **31.3** | | |

## RANKS AND SCORES

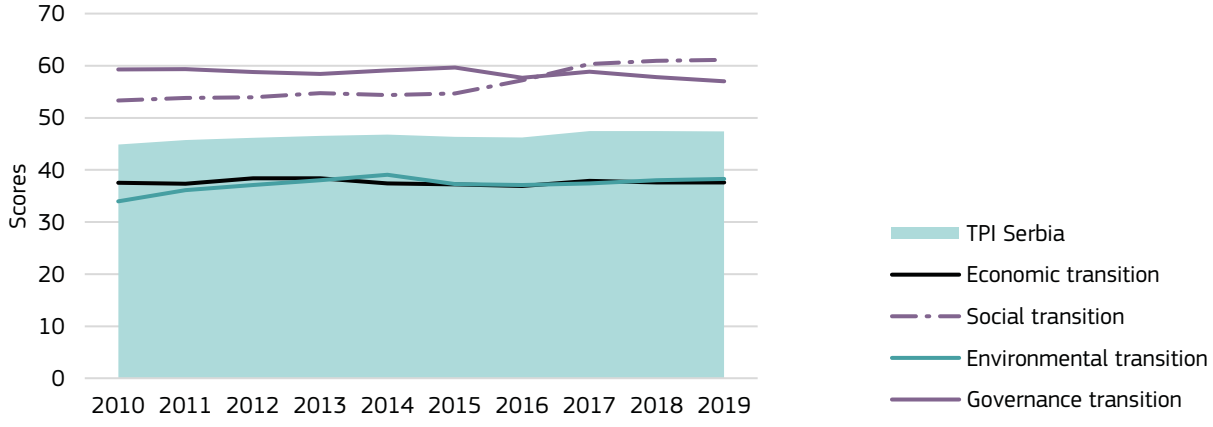
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Serbia ranks** | **58** | **53** | **46** | **64** | **48** |
| Serbia score | 47.4 | 37.6 | 61.1 | 38.2 | 57.0 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# SERBIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **58** | **47.4** | – |
| **1.** | **Economic transition** | | **53** | **37.6** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 13.0 | 48 | 52.2 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 18 564.5 | 51 | 24.8 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 48 | 22.9 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 41 148.1 | 53 | 27.4 | – |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.9 | 39 | 18.4 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 45 | 41.4 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 13.7 | 31 | 45.7 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.1 | 49 | 35.0 | – |
| **2.** | **Social transition** | | **46** | **61.1** | ↑ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 65.4 | 42 | 68.0 | – |
| 2.2 | WORK AND INCLUSION | | 49 | 57.5 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 63.1 | 50 | 46.2 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 16.0 | 37 | 77.1 | – |
| 2.2.3 | Early childhood care and education (%) | 44.7 | 54 | 41.1 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 48.8 | 45 | 61.5 | ↑ |
| 2.4 | EQUALITY | | 53 | 58.0 | ↑ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 36.2 | 46 | 64.0 | ↑ |
| 2.4.2 | Income share held by the poorest quintile (%) | 5.2 | 63 | 40.0 | ↑ |
| **3.** | **Environmental transition** | | **64** | **38.2** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 8.1 | 40 | 66.4 | ↗ |
| 3.2 | BIODIVERSITY | | 66 | 30.5 | ↗ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 29.5 | 57 | 29.5 | ↑ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 31.5 | 54 | 31.5 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | N/A | N/A | N/A | ↑ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.1 | 65 | 18.1 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 7.6 | 60 | 38.0 | ↑ |
| **4.** | **Governance transition** | | **48** | **57.0** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 50 | 47.1 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 0.0 | 51 | 50.1 | ↓ |
| 4.1.2 | Rule of law index (z-score) | (0.1) | 52 | 44.2 | ↑ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.2 | 32 | 77.8 | – |
| 4.3 | TRANSPARENCY | | 62 | 37.6 | ↓ |
| 4.3.1 | Corruption perceptions index (0-100) | 39.0 | 52 | 39.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 6.3 | 65 | 36.7 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 52.7 | 37 | 82.1 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# SINGAPORE

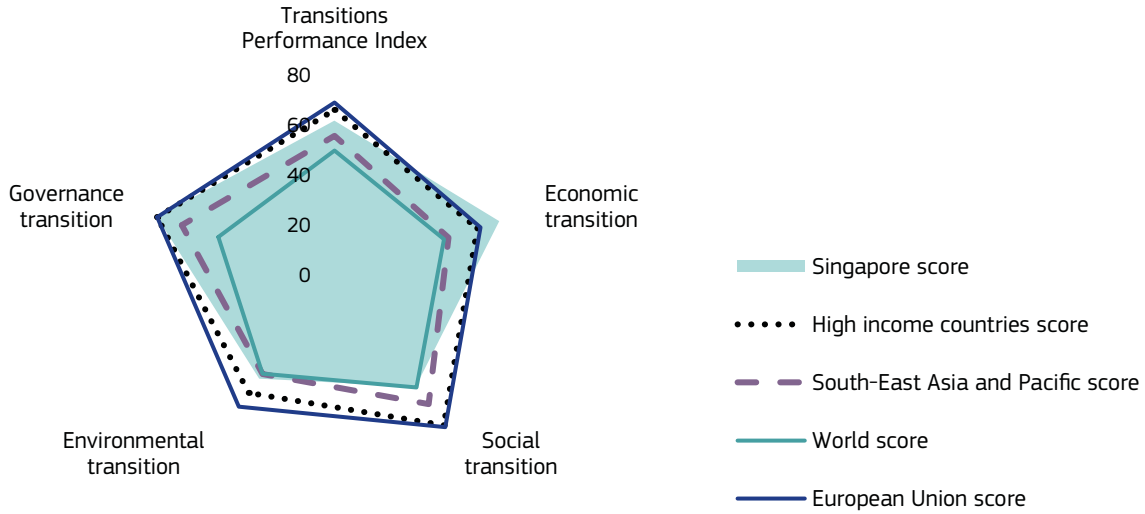
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **5.7** | **GDP PER CAPITA (current PPP$)** | **103 181.2** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **585.1** | **TRADE (% of GDP)** | **319.1** |

## RANKS AND SCORES

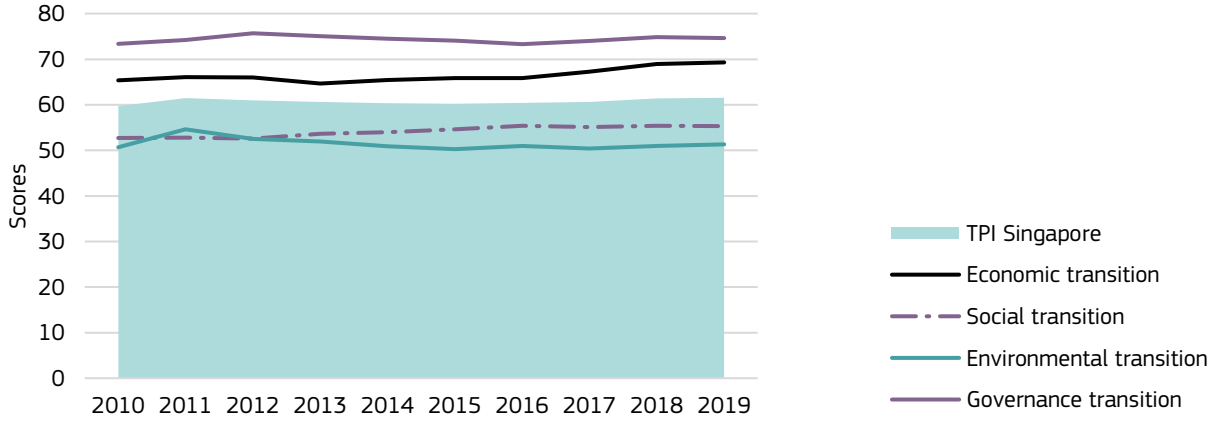
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Singapore ranks** | **32** | **7** | **56** | **45** | **21** |
| Singapore score | 61.6 | 69.3 | 55.3 | 51.3 | 74.7 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| South-East Asia and Pacific score | 55.6 | 47.9 | 64.0 | 49.0 | 64.1 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# SINGAPORE

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **32** | **61.6** | – |
| **1.** | **Economic transition** | | **7** | **69.3** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 11.8 | 51 | 47.1 | ↗ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 103 181.2 | 1 | 100.0 | – |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 1 | 71.7 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 151 522.0 | 1 | 100.0 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 2.2 | 13 | 43.3 | ↗ |
| 1.4 | INDUSTRIAL BASE | | 7 | 69.4 | – |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 20.8 | 8 | 69.4 | – |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 1.7 | 22 | 69.5 | – |
| **2.** | **Social transition** | | **56** | **55.3** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 74.7 | 1 | 98.9 | – |
| 2.2 | WORK AND INCLUSION | | 56 | 51.9 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 49.7 | 61 | 19.5 | ↓ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 17.9 | 44 | 74.4 | ↗ |
| 2.2.3 | Early childhood care and education (%) | 63.0 | 22 | 71.7 | – |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 31.4 | 68 | 29.7 | – |
| 2.4 | EQUALITY | | 68 | 40.8 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 45.9 | 68 | 42.4 | ↗ |
| 2.4.2 | Income share held by the poorest quintile (%) | 4.9 | 68 | 36.0 | ↘ |
| **3.** | **Environmental transition** | | **45** | **51.3** | – |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 9.6 | 50 | 59.9 | – |
| 3.2 | BIODIVERSITY | | 70 | 21.1 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 21.1 | 67 | 21.1 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | N/A | N/A | N/A | ↑ |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | N/A | N/A | N/A | ↑ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 3.1 | 17 | 52.4 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 14.4 | 17 | 71.9 | ↓ |
| **4.** | **Governance transition** | | **21** | **74.7** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 34 | 72.2 | – |
| 4.1.1 | Voice and accountability index (z-score) | (0.1) | 55 | 47.6 | ↑ |
| 4.1.2 | Rule of law index (z-score) | 1.8 | 7 | 96.7 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.2 | 1 | 96.0 | – |
| 4.3 | TRANSPARENCY | | 9 | 66.5 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 85.0 | 3 | 85.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.6 | 29 | 54.2 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 114.1 | 68 | 42.5 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# SOUTH AFRICA

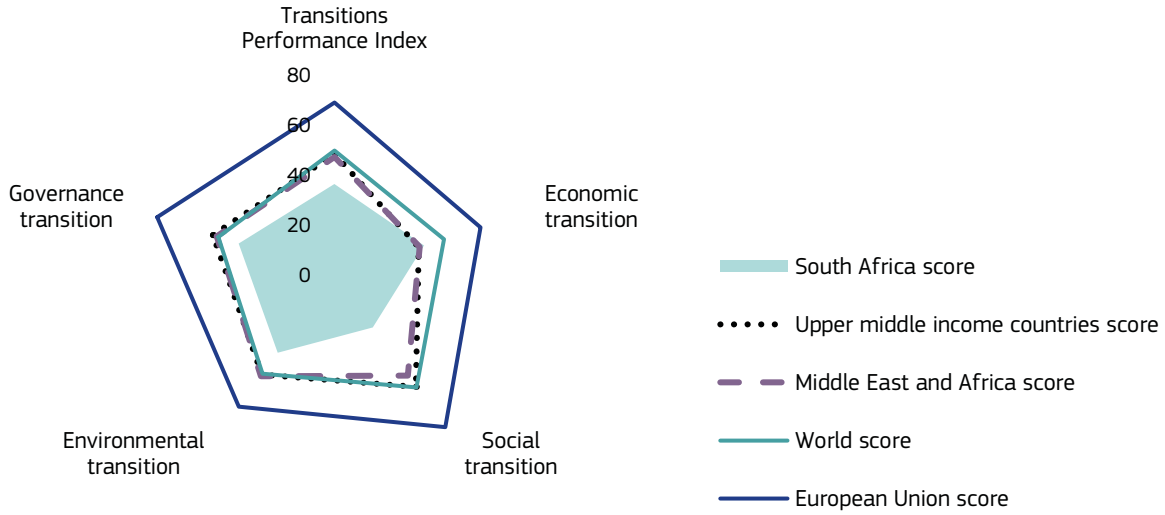
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **58.8** | **GDP PER CAPITA (current PPP$)** | **13 753.8** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **809.0** | **TRADE (% of GDP)** | **59.2** |
| **SUMMARY INNOVATION INDEX (0-100)** | **17.9** | | |

## RANKS AND SCORES

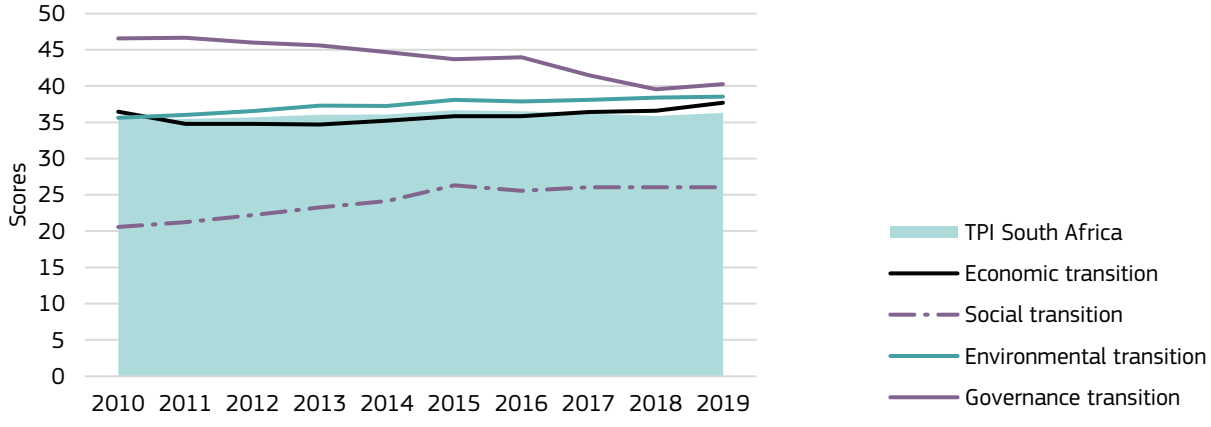
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **South Africa ranks** | **71** | **52** | **72** | **63** | **66** |
| South Africa score | 36.3 | 37.7 | 26.0 | 38.5 | 40.3 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| Middle East and Africa score | 47.1 | 35.9 | 49.9 | 50.2 | 49.6 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# SOUTH AFRICA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **71** | **36.3** | – |
| **1.** | **Economic transition** | | **52** | **37.7** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 14.2 | 44 | 56.9 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 13 753.8 | 61 | 18.3 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 50 | 22.3 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 42 209.6 | 49 | 28.1 | ↘ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.8 | 44 | 16.4 | ↗ |
| 1.4 | INDUSTRIAL BASE | | 44 | 41.6 | ↓ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 11.8 | 44 | 39.2 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.3 | 39 | 45.3 | ↓ |
| **2.** | **Social transition** | | **72** | **26.0** | ↑ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 53.2 | 71 | 27.4 | ↑ |
| 2.2 | WORK AND INCLUSION | | 62 | 38.4 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 48.5 | 62 | 16.9 | – |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 14.6 | 32 | 79.2 | ↗ |
| 2.2.3 | Early childhood care and education (%) | 12.0 | 68 | 0.0 | ↗ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 42.2 | 60 | 49.4 | ↑ |
| 2.4 | EQUALITY | | 72 | 4.6 | ↗ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 63.0 | 72 | 4.4 | ↑ |
| 2.4.2 | Income share held by the poorest quintile (%) | 2.4 | 71 | 5.0 | ↓ |
| **3.** | **Environmental transition** | | **63** | **38.5** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 9.2 | 48 | 61.6 | – |
| 3.2 | BIODIVERSITY | | 48 | 43.5 | ↗ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 30.7 | 56 | 30.7 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 35.8 | 47 | 35.8 | ↑ |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 2.2 | 32 | 84.6 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.3 | 59 | 21.1 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 5.6 | 69 | 27.9 | ↑ |
| **4.** | **Governance transition** | | **66** | **40.3** | ↓ |
| 4.1 | FUNDAMENTAL RIGHTS | | 41 | 60.2 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 0.7 | 35 | 74.5 | – |
| 4.1.2 | Rule of law index (z-score) | (0.1) | 50 | 45.9 | ↓ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 36.4 | 72 | 0.0 | ↓ |
| 4.3 | TRANSPARENCY | | 45 | 48.2 | ↓ |
| 4.3.1 | Corruption perceptions index (0-100) | 43.0 | 45 | 43.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.8 | 35 | 51.7 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 59.9 | 44 | 77.5 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# SOUTH KOREA

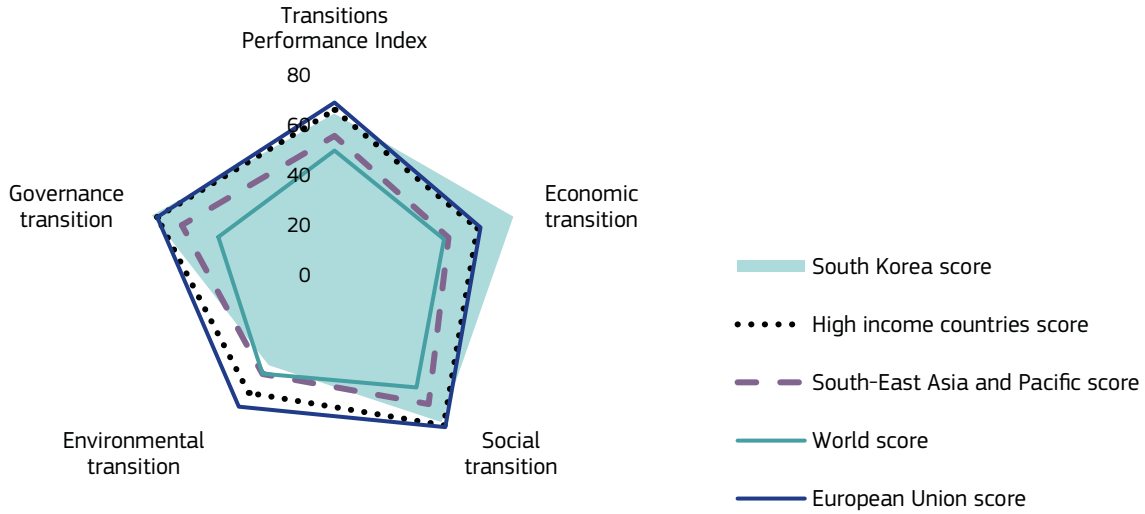
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 51.8 | GDP PER CAPITA (current PPP$) | 44 740.4 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 2 319.6 | TRADE (% of GDP) | 76.7 |
| SUMMARY INNOVATION INDEX (0-100) | 68.0 | | |

## RANKS AND SCORES

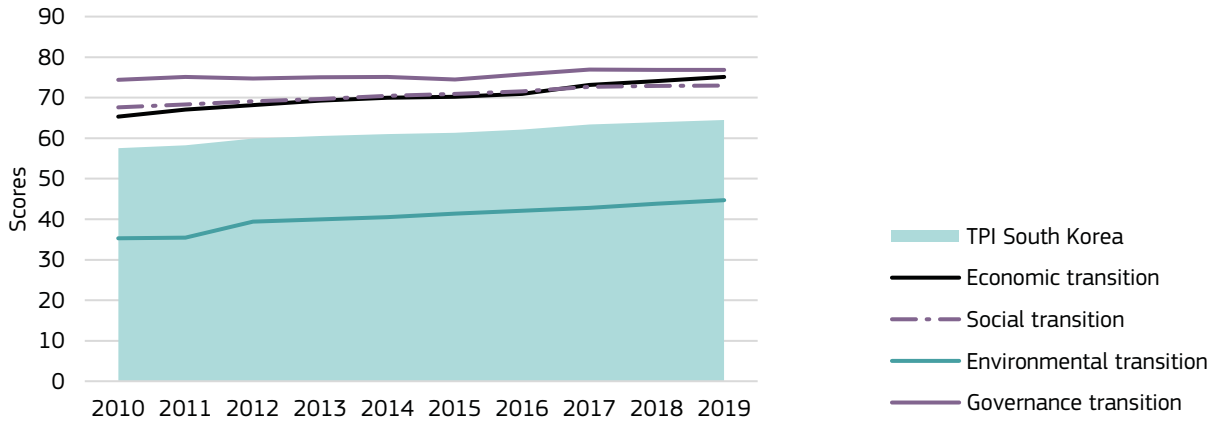
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **South Korea ranks** | **22** | **3** | **27** | **58** | **18** |
| South Korea score | 64.5 | 75.1 | 72.9 | 44.7 | 76.8 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| South-East Asia and Pacific score | 55.6 | 47.9 | 64.0 | 49.0 | 64.1 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# SOUTH KOREA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **22** | **64.5** | ↗ |
| **1.** | **Economic transition** | | **3** | **75.1** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 17.8 | 24 | 71.3 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 44 740.4 | 23 | 59.7 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 3 | 69.2 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 71 122.5 | 28 | 47.4 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 4.6 | 1 | 91.1 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 1 | 93.2 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 27.2 | 3 | 90.8 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 12.7 | 2 | 96.8 | – |
| **2.** | **Social transition** | | **27** | **72.9** | ↗ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 70.7 | 22 | 85.7 | ↗ |
| 2.2 | WORK AND INCLUSION | | 31 | 69.9 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 71.2 | 38 | 62.4 | ↗ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 23.7 | 55 | 66.2 | ↗ |
| 2.2.3 | Early childhood care and education (%) | 75.5 | 8 | 92.4 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 48.7 | 46 | 61.3 | ↑ |
| 2.4 | EQUALITY | | 24 | 72.2 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 31.6 | 22 | 74.2 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 7.3 | 34 | 66.3 | – |
| **3.** | **Environmental transition** | | **58** | **44.7** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 13.6 | 62 | 43.3 | ↘ |
| 3.2 | BIODIVERSITY | | 68 | 30.0 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 32.5 | 53 | 32.5 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 36.8 | 42 | 36.8 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 12.4 | 61 | 11.6 | ↓ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 4.0 | 9 | 67.0 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 7.7 | 59 | 38.4 | ↑ |
| **4.** | **Governance transition** | | **18** | **76.8** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 26 | 83.9 | – |
| 4.1.1 | Voice and accountability index (z-score) | 0.8 | 33 | 78.7 | – |
| 4.1.2 | Rule of law index (z-score) | 1.2 | 22 | 89.2 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.6 | 13 | 86.9 | ↗ |
| 4.3 | TRANSPARENCY | | 35 | 55.2 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 57.0 | 34 | 57.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.6 | 30 | 54.0 | – |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 40.1 | 25 | 90.2 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# SWITZERLAND

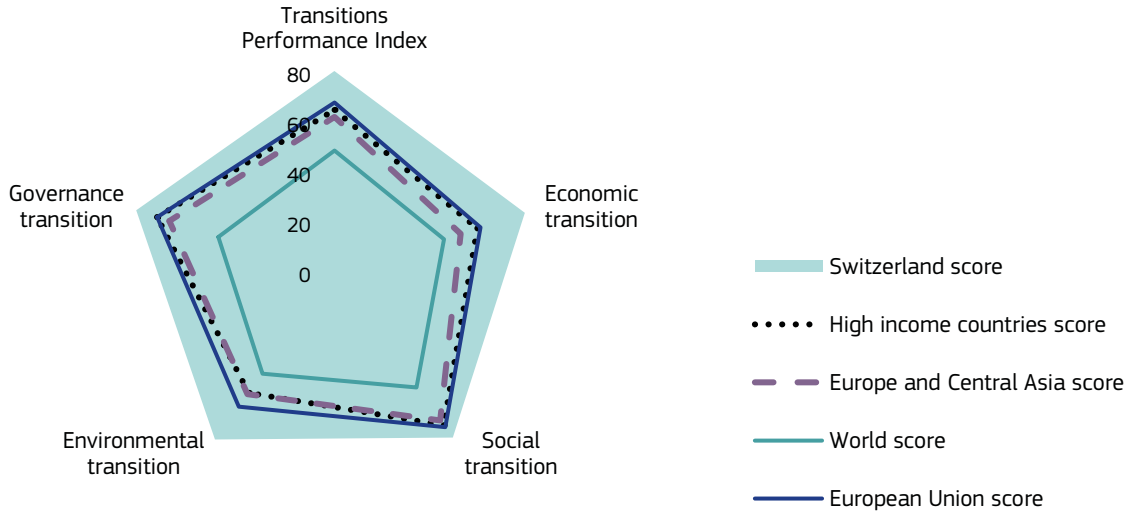
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 8.5 | GDP PER CAPITA (current PPP$) | 66 196.1 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 565.6 | TRADE (% of GDP) | 119.4 |
| SUMMARY INNOVATION INDEX (0-100) | 83.7 | | |

## RANKS AND SCORES

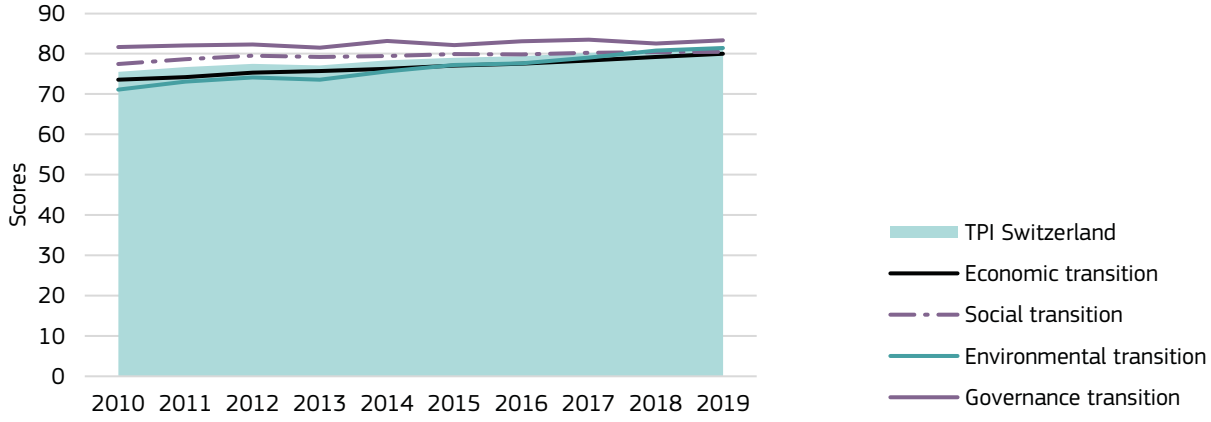
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Switzerland ranks** | **1** | **1** | **8** | **2** | **6** |
| Switzerland score | 81.4 | 80.0 | 80.5 | 81.4 | 83.4 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# SWITZERLAND

| | | 2019 VALUE | 2019 RANK | 2019 SCORE | 2010-2019 SCORE PROGRESS |
|---|---|---|---|---|---|
| **TRANSITIONS PERFORMANCE INDEX** | | | **1** | **81.4** | ↗ |
| **1.** | **Economic transition** | | **1** | **80.0** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 21.9 | 8 | 87.6 | ↗ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 66 196.1 | 6 | 88.3 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 4 | 69.2 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 106 530.0 | 7 | 71.0 | – |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 3.4 | 3 | 67.4 | – |
| 1.4 | INDUSTRIAL BASE | | 5 | 74.0 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 18.7 | 16 | 62.3 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 8.6 | 4 | 91.5 | ↘ |
| **2.** | **Social transition** | | **8** | **80.5** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 72.4 | 3 | 91.3 | – |
| 2.2 | WORK AND INCLUSION | | 22 | 74.8 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 82.5 | 4 | 85.0 | ↗ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 12.4 | 23 | 82.3 | ↗ |
| 2.2.3 | Early childhood care and education (%) | 43.8 | 57 | 39.6 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 63.5 | 4 | 88.2 | ↗ |
| 2.4 | EQUALITY | | 27 | 71.6 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 32.7 | 26 | 71.8 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 7.7 | 25 | 71.3 | ↘ |
| **3.** | **Environmental transition** | | **2** | **81.4** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 6.2 | 24 | 74.2 | ↗ |
| 3.2 | BIODIVERSITY | | 42 | 51.4 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 35.2 | 50 | 35.2 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 60.1 | 31 | 60.1 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 4.7 | 47 | 66.3 | – |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 6.0 | 1 | 100.0 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 23.4 | 1 | 100.0 | ↗ |
| **4.** | **Governance transition** | | **6** | **83.4** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 3 | 96.0 | – |
| 4.1.1 | Voice and accountability index (z-score) | 1.6 | 3 | 94.7 | – |
| 4.1.2 | Rule of law index (z-score) | 1.9 | 3 | 97.3 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.6 | 12 | 87.2 | – |
| 4.3 | TRANSPARENCY | | 13 | 64.2 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 85.0 | 3 | 85.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.0 | 40 | 50.4 | ↗ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 38.6 | 21 | 91.2 | – |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# THAILAND

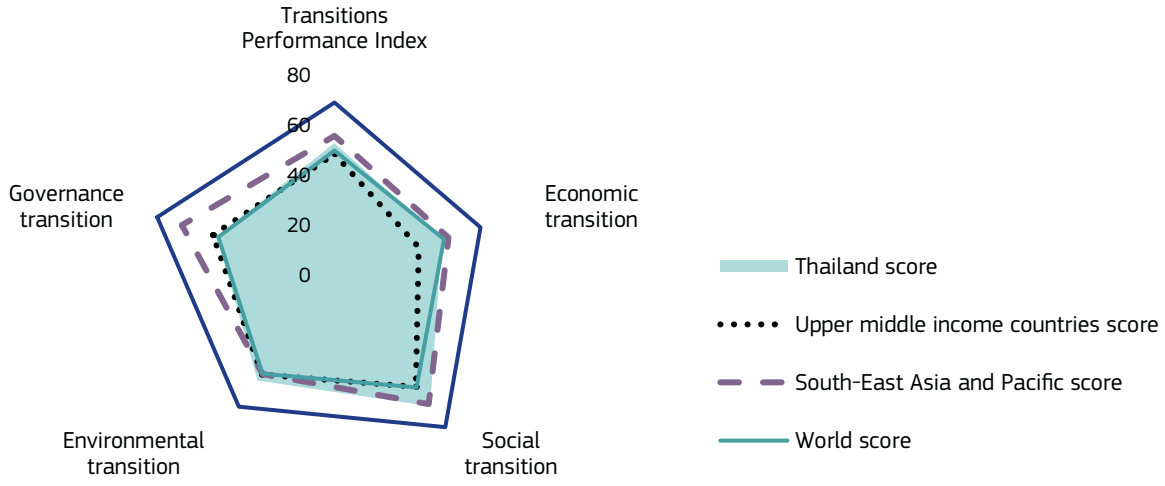
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **67.9** | **GDP PER CAPITA (current PPP$)** | **20 364.5** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **1 383.0** | **TRADE (% of GDP)** | **110.3** |

## RANKS AND SCORES

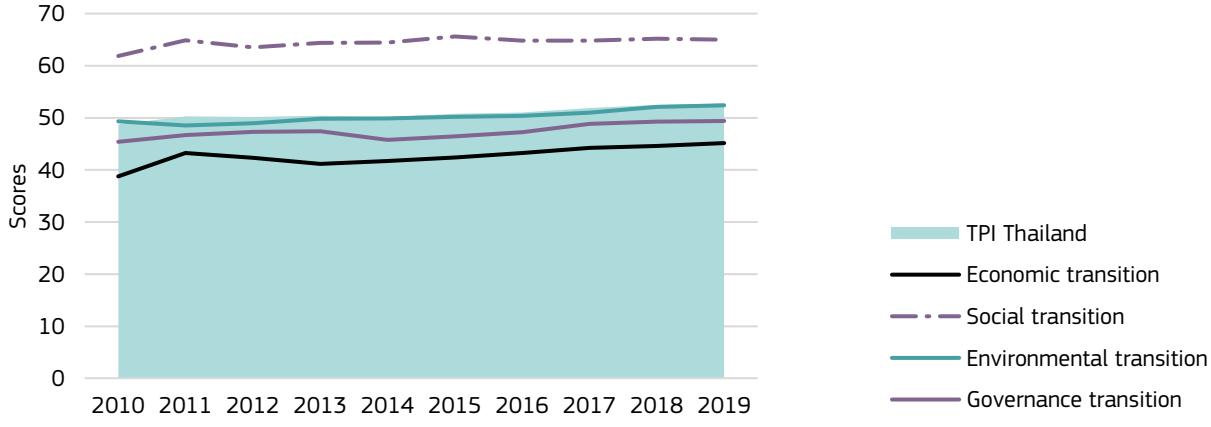
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Thailand ranks** | **46** | **42** | **39** | **42** | **58** |
| Thailand score | 52.7 | 45.1 | 65.0 | 52.4 | 49.4 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| South-East Asia and Pacific score | 55.6 | 47.9 | 64.0 | 49.0 | 64.1 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# THAILAND

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **46** | **52.7** | ↗ |
| **1.** | **Economic transition** | | **42** | **45.1** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 13.7 | 45 | 54.7 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 20 364.5 | 47 | 27.2 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 52 | 20.4 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 31 203.6 | 60 | 20.8 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.0 | 37 | 20.1 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 12 | 64.1 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 26.9 | 5 | 89.7 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.1 | 60 | 25.5 | ↑ |
| **2.** | **Social transition** | | **39** | **65.0** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 64.0 | 55 | 63.3 | – |
| 2.2 | WORK AND INCLUSION | | 27 | 72.1 | ↘ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 78.2 | 17 | 76.5 | ↘ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 17.8 | 42 | 74.6 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 55.0 | 36 | 58.4 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 49.0 | 43 | 61.8 | – |
| 2.4 | EQUALITY | | 40 | 63.9 | ↗ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 36.4 | 47 | 63.6 | ↗ |
| 2.4.2 | Income share held by the poorest quintile (%) | 7.2 | 35 | 65.0 | ↑ |
| **3.** | **Environmental transition** | | **42** | **52.4** | – |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 6.3 | 27 | 73.6 | ↘ |
| 3.2 | BIODIVERSITY | | 31 | 63.6 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 71.3 | 27 | 71.3 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 43.6 | 36 | 43.6 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 1.7 | 24 | 88.1 | ↑ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.6 | 52 | 26.2 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 9.2 | 52 | 46.2 | ↗ |
| **4.** | **Governance transition** | | **58** | **49.4** | ↗ |
| 4.1 | FUNDAMENTAL RIGHTS | | 63 | 33.3 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | (1.0) | 65 | 15.7 | ↓ |
| 4.1.2 | Rule of law index (z-score) | 0.0 | 47 | 50.9 | ↑ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 2.6 | 54 | 64.7 | ↑ |
| 4.3 | TRANSPARENCY | | 63 | 37.1 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 36.0 | 57 | 36.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 6.2 | 63 | 37.8 | – |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 42.4 | 28 | 88.8 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# TUNISIA

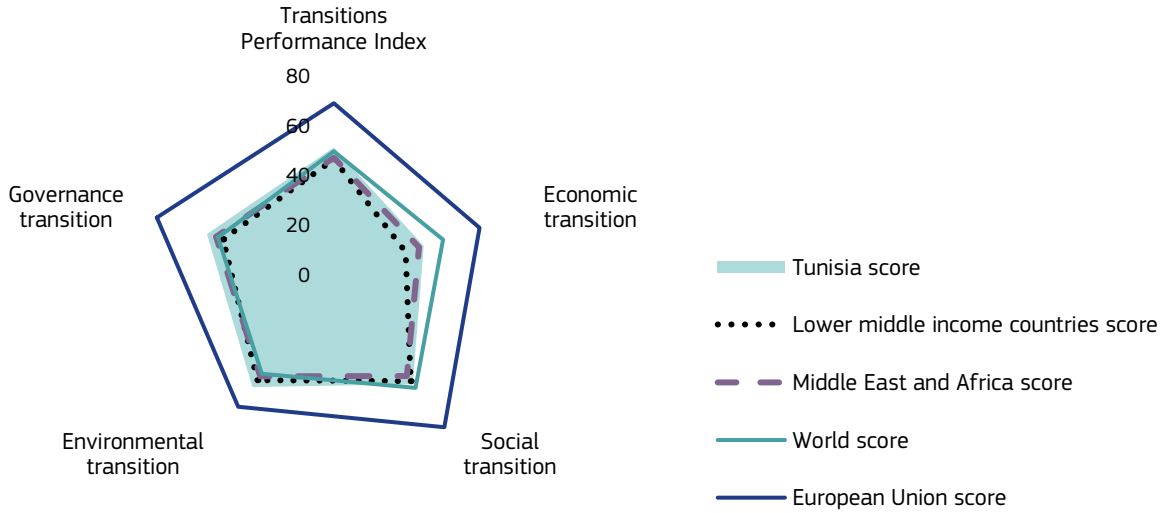
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **11.8** | **GDP PER CAPITA (current PPP$)** | **12 661.3** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **149.2** | **TRADE (% of GDP)** | **110.5** |

## RANKS AND SCORES

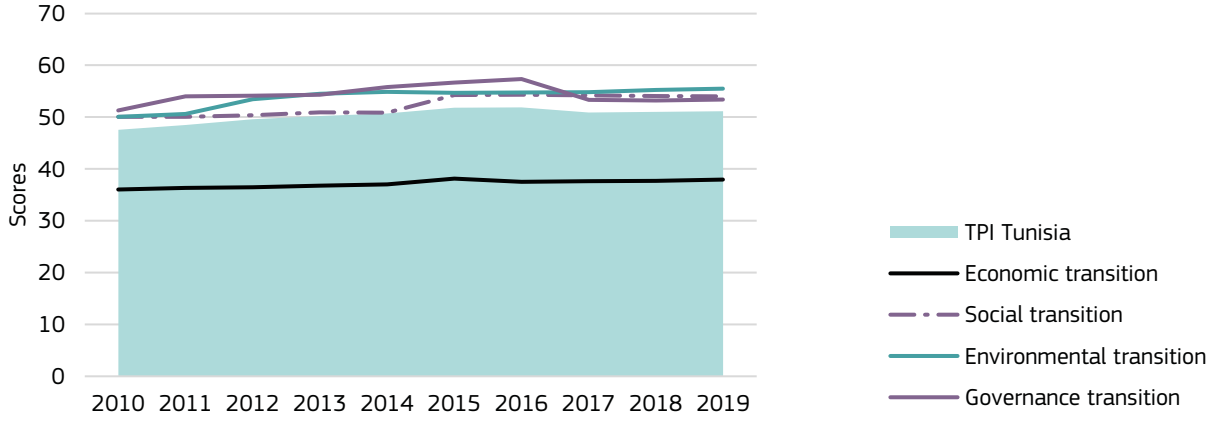
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Tunisia ranks** | **48** | **51** | **57** | **36** | **52** |
| Tunisia score | 51.1 | 37.9 | 54.0 | 55.5 | 53.4 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Lower middle income countries score | 46.4 | 30.3 | 52.5 | 52.0 | 46.6 |
| Middle East and Africa score | 47.1 | 35.9 | 49.9 | 50.2 | 49.6 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# TUNISIA

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **48** | **51.1** | ↗ |
| **1.** | **Economic transition** | | **51** | **37.9** | – |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 17.3 | 28 | 69.2 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 12 661.3 | 62 | 16.9 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 57 | 18.7 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 37 956.1 | 55 | 25.3 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.6 | 50 | 12.0 | ↓ |
| 1.4 | INDUSTRIAL BASE | | 62 | 33.6 | ↓ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 14.3 | 29 | 47.6 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.0 | 66 | 12.7 | ↓ |
| **2.** | **Social transition** | | **57** | **54.0** | ↗ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 65.3 | 45 | 67.6 | ↗ |
| 2.2 | WORK AND INCLUSION | | 67 | 20.8 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 45.9 | 64 | 11.8 | ↓ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 48.5 | 66 | 30.8 | ↑ |
| 2.2.3 | Early childhood care and education (%) | 31.2 | 63 | 18.7 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 36.4 | 62 | 39.0 | ↘ |
| 2.4 | EQUALITY | | 26 | 71.8 | ↑ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 32.8 | 27 | 71.6 | ↗ |
| 2.4.2 | Income share held by the poorest quintile (%) | 7.8 | 24 | 72.5 | ↑ |
| **3.** | **Environmental transition** | | **36** | **55.5** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 3.4 | 12 | 85.8 | – |
| 3.2 | BIODIVERSITY | | 38 | 53.1 | ↑ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 40.2 | 46 | 40.2 | ↑ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 43.4 | 37 | 43.4 | ↑ |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 0.2 | 3 | 98.6 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.4 | 55 | 23.2 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 12.0 | 32 | 59.8 | – |
| **4.** | **Governance transition** | | **52** | **53.4** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 46 | 55.0 | ↑ |
| 4.1.1 | Voice and accountability index (z-score) | 0.2 | 45 | 58.3 | ↑ |
| 4.1.2 | Rule of law index (z-score) | 0.0 | 45 | 51.6 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 3.1 | 56 | 61.2 | ↘ |
| 4.3 | TRANSPARENCY | | 60 | 39.0 | ↓ |
| 4.3.1 | Corruption perceptions index (0-100) | 43.0 | 45 | 43.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 6.4 | 66 | 36.3 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 74.4 | 55 | 68.1 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# TURKEY

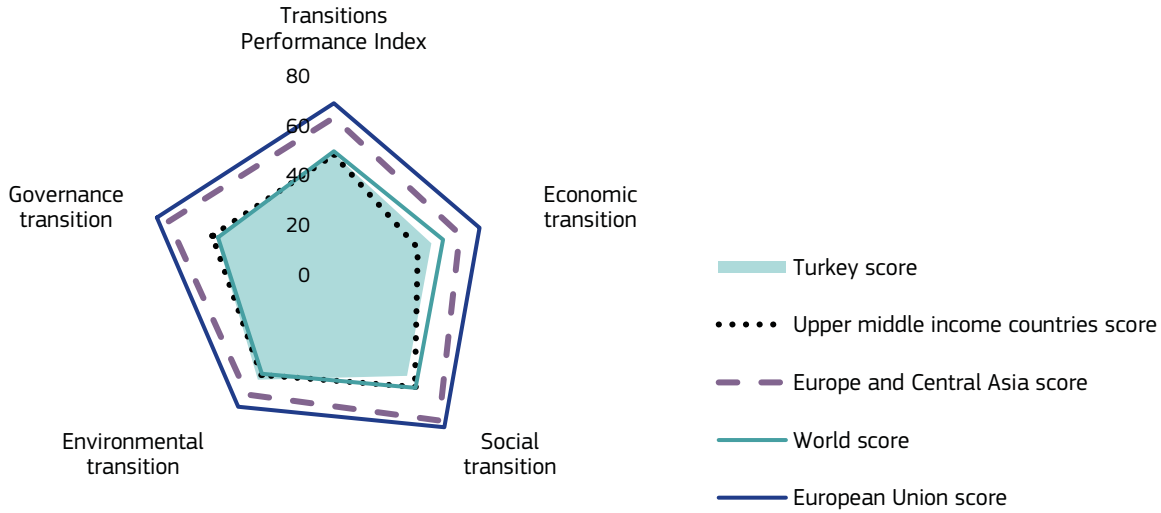
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **83.0** | **GDP PER CAPITA (current PPP$)** | **28 264.3** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **2 346.6** | **TRADE (% of GDP)** | **61.4** |
| **SUMMARY INNOVATION INDEX (0-100)** | **31.6** | | |

## RANKS AND SCORES

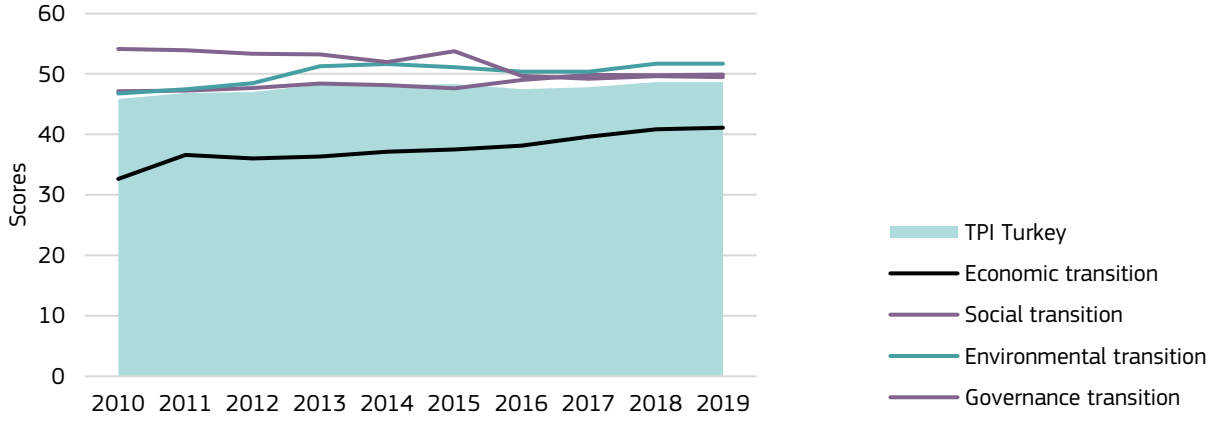
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Turkey ranks** | **52** | **48** | **62** | **44** | **57** |
| Turkey score | 48.7 | 41.1 | 49.9 | 51.7 | 49.5 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Upper middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# TURKEY

| | | 2019 VALUE | 2019 RANK | 2019 SCORE | 2010-2019 SCORE PROGRESS |
|---|---|---|---|---|---|
| **TRANSITIONS PERFORMANCE INDEX** | | | **52** | **48.7** | – |
| **1.** | **Economic transition** | | **48** | **41.1** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 9.3 | 62 | 37.4 | ↑ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 28 264.3 | 41 | 37.7 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 34 | 33.7 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 72 295.8 | 26 | 48.2 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.0 | 38 | 19.2 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 26 | 52.1 | ↗ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 19.0 | 14 | 63.5 | ↑ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.1 | 50 | 34.9 | ↓ |
| **2.** | **Social transition** | | **62** | **49.9** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 64.4 | 51 | 64.8 | ↗ |
| 2.2 | WORK AND INCLUSION | | 64 | 30.0 | ↑ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 55.6 | 58 | 31.2 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 39.4 | 64 | 43.7 | ↑ |
| 2.2.3 | Early childhood care and education (%) | 20.0 | 68 | 0.0 | ↗ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 42.7 | 58 | 50.3 | ↑ |
| 2.4 | EQUALITY | | 61 | 50.4 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 41.9 | 63 | 51.3 | ↓ |
| 2.4.2 | Income share held by the poorest quintile (%) | 5.8 | 54 | 47.5 | ↘ |
| **3.** | **Environmental transition** | | **44** | **51.7** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 6.7 | 29 | 72.1 | ↘ |
| 3.2 | BIODIVERSITY | | 72 | 19.4 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 2.5 | 72 | 2.5 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 4.4 | 67 | 4.4 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 2.3 | 35 | 83.5 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 2.2 | 34 | 36.4 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 15.8 | 10 | 78.9 | ↑ |
| **4.** | **Governance transition** | | **57** | **49.5** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 65 | 28.9 | ↓ |
| 4.1.1 | Voice and accountability index (z-score) | (0.8) | 63 | 20.2 | ↓ |
| 4.1.2 | Rule of law index (z-score) | (0.3) | 60 | 37.5 | ↓ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 2.6 | 55 | 64.6 | ↑ |
| 4.3 | TRANSPARENCY | | 59 | 39.3 | ↓ |
| 4.3.1 | Corruption perceptions index (0-100) | 41.0 | 49 | 41.0 | ↓ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 6.2 | 62 | 38.1 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 30.1 | 11 | 96.7 | ↗ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# UKRAINE

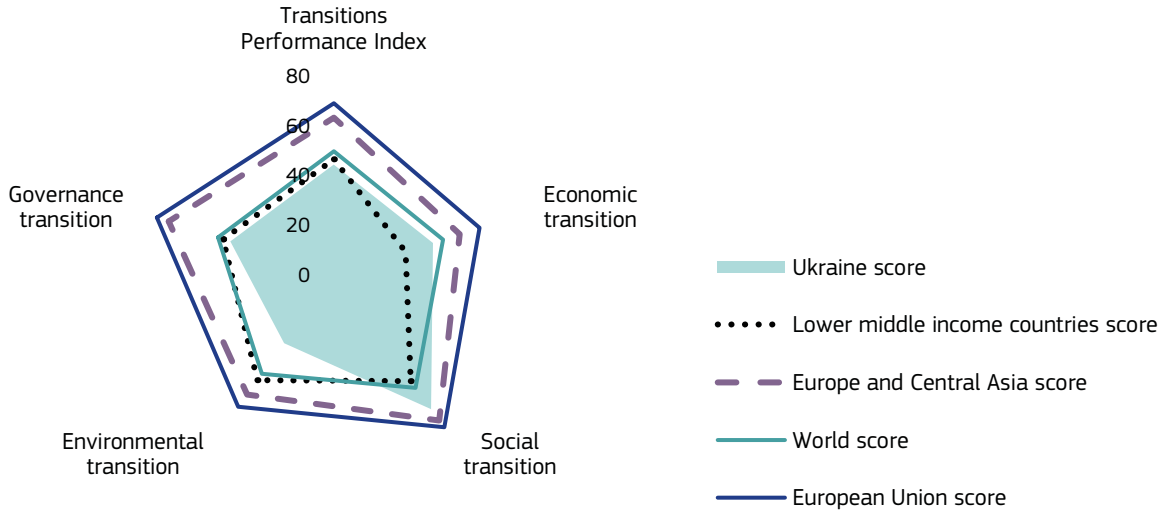
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **41.9** | **GDP PER CAPITA (current PPP$)** | **9 774.6** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **409.3** | **TRADE (% of GDP)** | **90.2** |
| **SUMMARY INNOVATION INDEX (0-100)** | **16.7** | | |

## RANKS AND SCORES

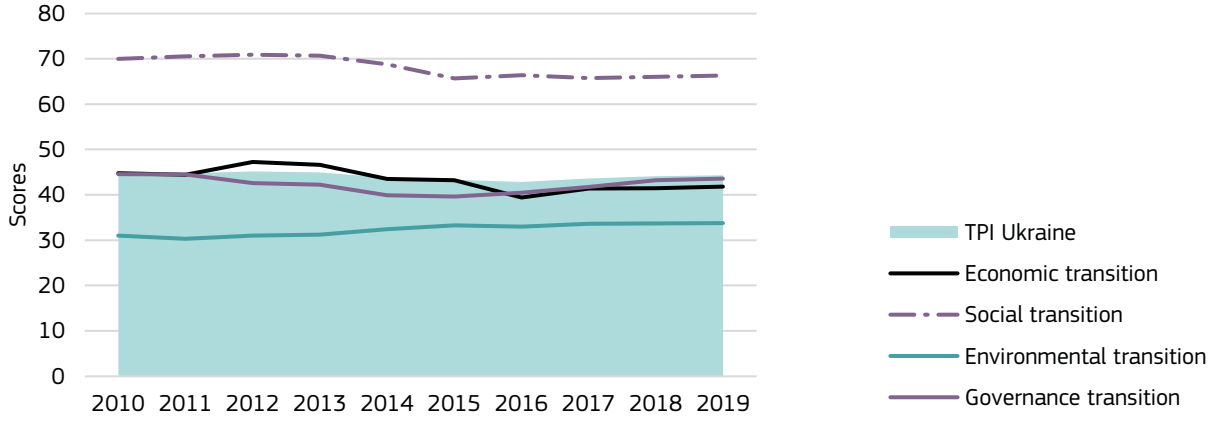
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Ukraine ranks** | **65** | **46** | **38** | **68** | **64** |
| Ukraine score | 44.3 | 41.8 | 66.3 | 33.8 | 43.5 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Lower middle income countries score | 46.4 | 30.3 | 52.5 | 52.0 | 46.6 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# UKRAINE

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **65** | **44.3** | ↘ |
| **1.** | **Economic transition** | | **46** | **41.8** | ↘ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 21.2 | 9 | 84.6 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 9 774.6 | 65 | 13.0 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 64 | 11.5 | ↓ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 20 495.5 | 67 | 13.7 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.5 | 60 | 9.4 | ↓ |
| 1.4 | INDUSTRIAL BASE | | 54 | 38.3 | ↓ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 11.5 | 46 | 38.4 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.2 | 45 | 38.2 | ↓ |
| **2.** | **Social transition** | | **38** | **66.3** | ↘ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 60.3 | 65 | 51.0 | ↑ |
| 2.2 | WORK AND INCLUSION | | 48 | 57.9 | ↓ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 57.3 | 56 | 34.6 | ↓ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 15.5 | 34 | 77.8 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 58.7 | 32 | 64.5 | ↓ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 44.2 | 56 | 53.1 | ↓ |
| 2.4 | EQUALITY | | 4 | 89.5 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 26.1 | 5 | 86.4 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 9.9 | 4 | 98.8 | ↘ |
| **3.** | **Environmental transition** | | **68** | **33.8** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 7.3 | 32 | 69.6 | ↗ |
| 3.2 | BIODIVERSITY | | 64 | 33.2 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 23.8 | 62 | 23.8 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 17.5 | 62 | 17.5 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 2.3 | 36 | 83.4 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 0.7 | 70 | 12.3 | ↘ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 4.0 | 71 | 19.8 | ↑ |
| **4.** | **Governance transition** | | **64** | **43.5** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 60 | 36.5 | ↗ |
| 4.1.1 | Voice and accountability index (z-score) | (0.0) | 54 | 49.5 | – |
| 4.1.2 | Rule of law index (z-score) | (0.7) | 69 | 23.6 | ↗ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 6.2 | 65 | 45.4 | ↓ |
| 4.3 | TRANSPARENCY | | 65 | 36.7 | ↑ |
| 4.3.1 | Corruption perceptions index (0-100) | 32.0 | 67 | 32.0 | ↑ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 6.0 | 60 | 39.9 | ↑ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 57.0 | 42 | 79.4 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# UNITED ARAB EMIRATES

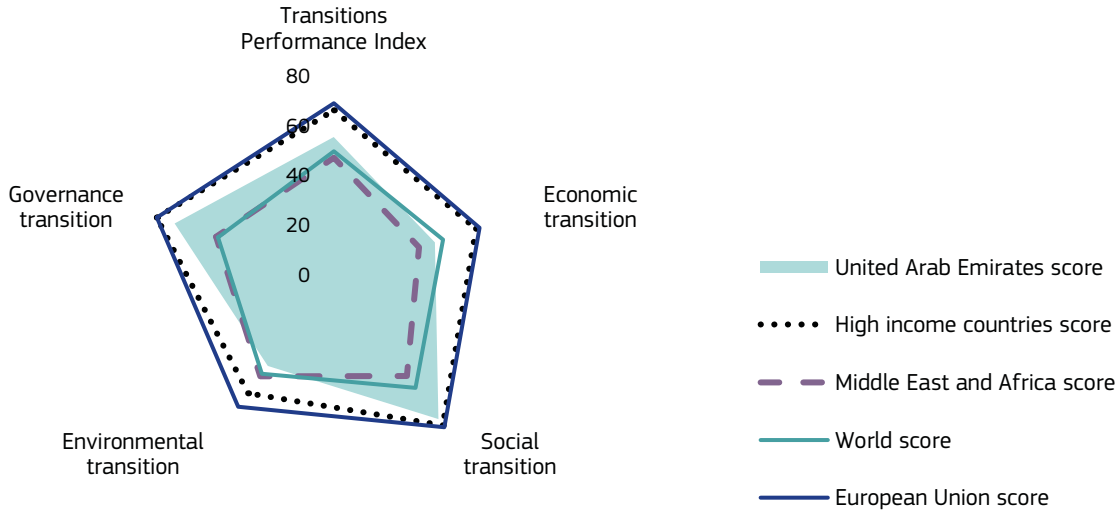
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **10.7** | **GDP PER CAPITA (current PPP$)** | **69 434.8** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **746.4** | **TRADE (% of GDP)** | **160.9** |

## RANKS AND SCORES

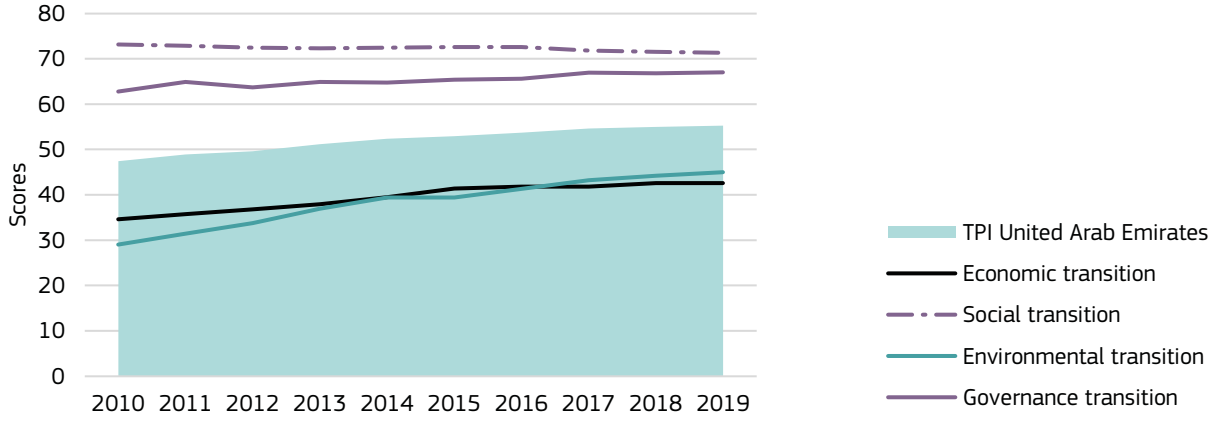
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **United Arab Emirates ranks** | **41** | **43** | **29** | **56** | **35** |
| United Arab Emirates score | 55.3 | 42.6 | 71.3 | 45.0 | 67.0 |
| World score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Middle East and Africa score | 47.1 | 35.9 | 49.9 | 50.2 | 49.6 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019

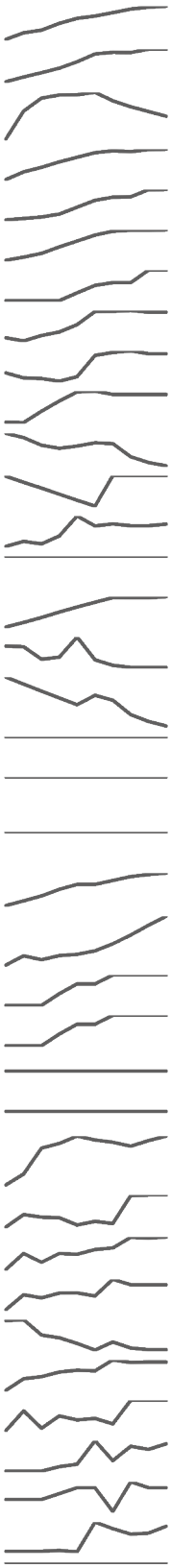



## TRANSITIONS PROGRESS 2010-2019



# UNITED ARAB EMIRATES

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **41** | **55.3** | ↑ |
| **1.** | **Economic transition** | | **43** | **42.6** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 5.0 | 69 | 20.2 | – |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 69 434.8 | 5 | 92.6 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 21 | 45.6 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 97 556.1 | 11 | 65.0 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.3 | 27 | 26.1 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 67 | 29.7 | ↑ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 8.9 | 61 | 29.7 | ↗ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.1 | 56 | 29.7 | ↑ |
| **2.** | **Social transition** | | **29** | **71.3** | ↘ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 66.0 | 36 | 69.9 | – |
| 2.2 | WORK AND INCLUSION | | 37 | 67.2 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 91.3 | 1 | 100.0 | – |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 42.6 | 65 | 39.1 | ↑ |
| 2.2.3 | Early childhood care and education (%) | 54.6 | 38 | 57.6 | ↓ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 61.4 | 8 | 84.4 | ↓ |
| 2.4 | EQUALITY | | 34 | 67.3 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 32.5 | 25 | 72.2 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 6.2 | 49 | 52.5 | – |
| **3.** | **Environmental transition** | | **56** | **45.0** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 21.0 | 71 | 12.6 | ↑ |
| 3.2 | BIODIVERSITY | | 33 | 57.9 | ↑ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 57.9 | 32 | 57.9 | ↑ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | N/A | N/A | N/A | ↑ |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | N/A | N/A | N/A | ↑ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 3.5 | 13 | 58.9 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 10.1 | 46 | 50.7 | ↑ |
| **4.** | **Governance transition** | | **35** | **67.0** | ↗ |
| 4.1 | FUNDAMENTAL RIGHTS | | 52 | 46.2 | ↑ |
| 4.1.1 | Voice and accountability index (z-score) | (1.1) | 67 | 13.4 | ↓ |
| 4.1.2 | Rule of law index (z-score) | 0.8 | 32 | 79.0 | ↑ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 0.5 | 5 | 89.4 | ↗ |
| 4.3 | TRANSPARENCY | | 36 | 54.4 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 70.0 | 22 | 70.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.6 | 53 | 44.0 | ↗ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 20.1 | 1 | 100.0 | – |



■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# UNITED KINGDOM

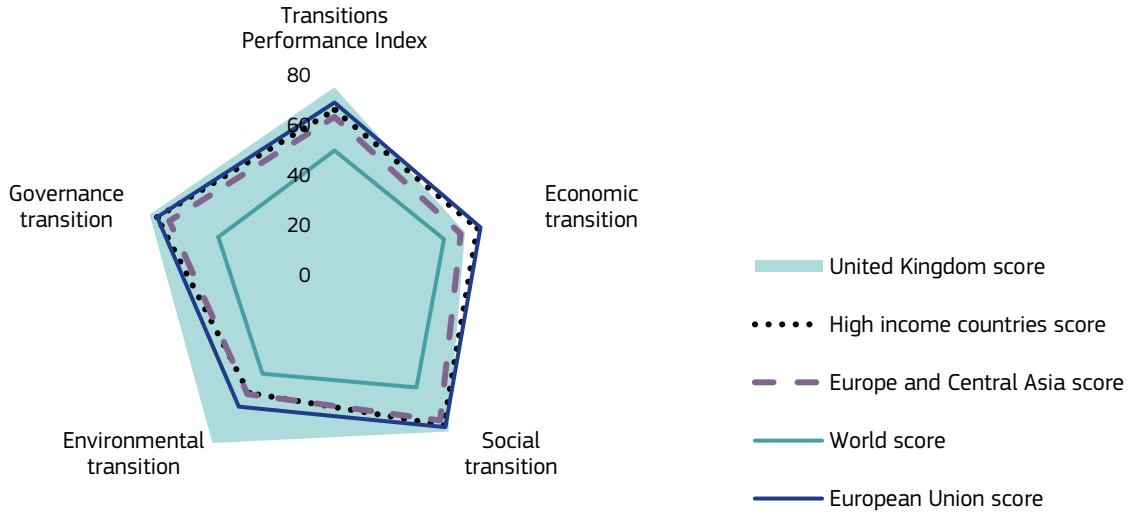
| | | | |
|---|---|---|---|
| POPULATION (million inhabitants) | 66.9 | GDP PER CAPITA (current PPP$) | 46 827.0 |
| GROSS DOMESTIC PRODUCT (GDP) (billion PPP$) | 3 131.2 | TRADE (% of GDP) | 64.3 |
| SUMMARY INNOVATION INDEX (0-100) | 61.3 | DIGITAL ECONOMY AND SOCIETY INDEX (0-100) | 60.4 |

## RANKS AND SCORES

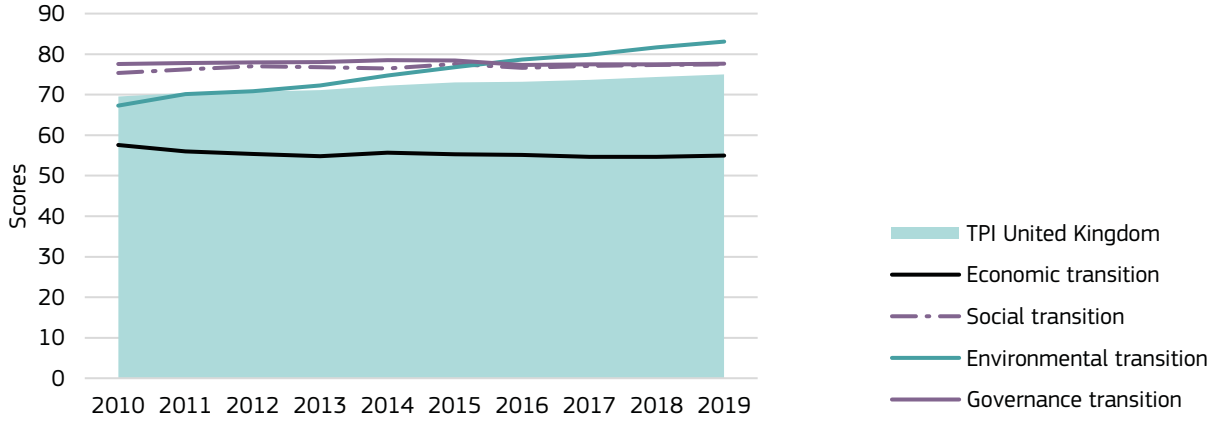
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **United Kingdom ranks** | **4** | **28** | **19** | **1** | **17** |
| United Kingdom score | 75.0 | 54.9 | 77.5 | 83.1 | 77.7 |
| World weighted average score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Europe and Central Asia score | 63.1 | 53.1 | 72.0 | 59.1 | 69.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# UNITED KINGDOM

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **4** | **75.0** | ↗ |
| **1.** | **Economic transition** | | **28** | **54.9** | ↘ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 16.4 | 34 | 65.7 | ↓ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 46 827.0 | 21 | 62.4 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 24 | 43.8 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 81 369.6 | 23 | 54.2 | – |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.7 | 21 | 33.3 | – |
| 1.4 | INDUSTRIAL BASE | | 35 | 46.6 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 8.6 | 64 | 28.7 | ↓ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 2.3 | 18 | 73.6 | ↘ |
| **2.** | **Social transition** | | **19** | **77.5** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 70.9 | 19 | 86.5 | – |
| 2.2 | WORK AND INCLUSION | | 8 | 80.7 | ↗ |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 78.7 | 12 | 77.4 | ↑ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 11.5 | 17 | 83.6 | – |
| 2.2.3 | Early childhood care and education (%) | 68.9 | 14 | 81.4 | – |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 60.4 | 10 | 82.6 | – |
| 2.4 | EQUALITY | | 36 | 66.3 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 34.8 | 39 | 67.1 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 7.1 | 36 | 63.8 | ↘ |
| **3.** | **Environmental transition** | | **1** | **83.1** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 7.7 | 36 | 67.9 | ↑ |
| 3.2 | BIODIVERSITY | | 11 | 84.3 | ↘ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 84.3 | 13 | 84.3 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 88.1 | 13 | 88.1 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 3.2 | 41 | 76.9 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 5.6 | 3 | 94.0 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 17.2 | 6 | 86.2 | ↑ |
| **4.** | **Governance transition** | | **17** | **77.7** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 14 | 93.3 | – |
| 4.1.1 | Voice and accountability index (z-score) | 1.4 | 14 | 91.7 | – |
| 4.1.2 | Rule of law index (z-score) | 1.6 | 14 | 94.9 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.2 | 31 | 78.1 | ↘ |
| 4.3 | TRANSPARENCY | | 7 | 67.2 | – |
| 4.3.1 | Corruption perceptions index (0-100) | 80.0 | 11 | 80.0 | ↗ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 4.1 | 19 | 58.7 | – |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 85.9 | 59 | 60.7 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# UNITED STATES

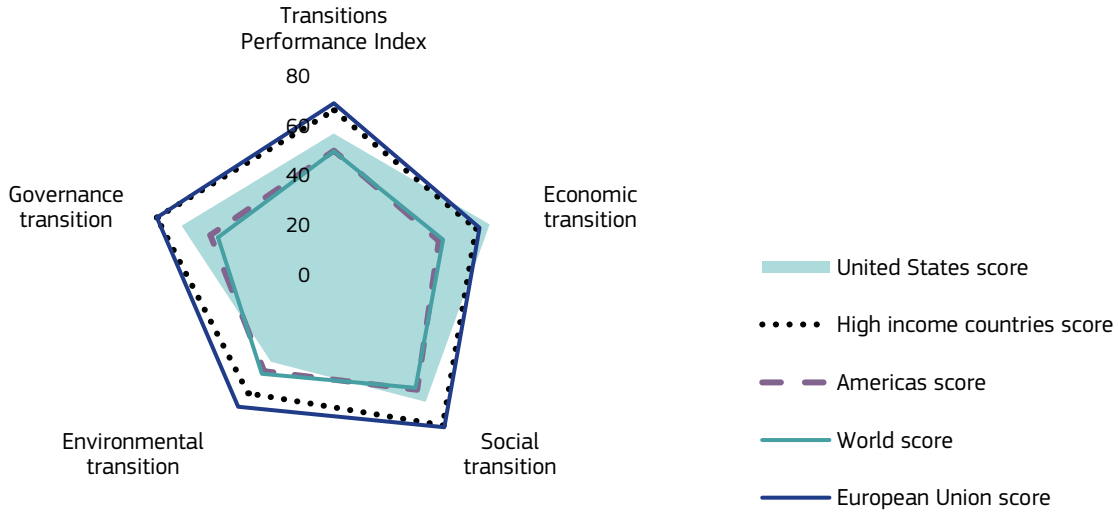
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **329.3** | **GDP PER CAPITA (current PPP$)** | **65 111.6** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **21 439.5** | **TRADE (% of GDP)** | **26.4** |
| **SUMMARY INNOVATION INDEX (0-100)** | **48.6** | | |

## RANKS AND SCORES

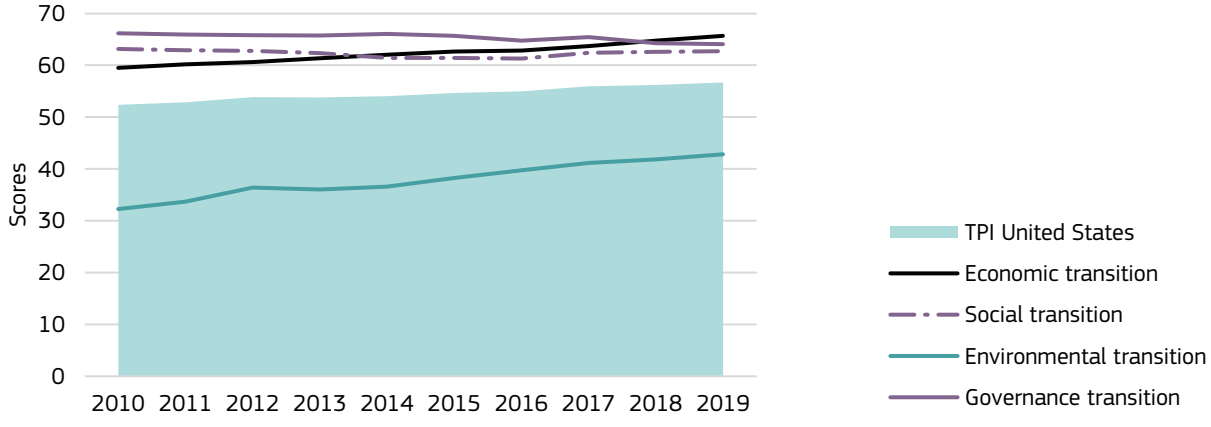
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **United States ranks** | **38** | **14** | **42** | **59** | **40** |
| United States score | 56.7 | 65.7 | 62.7 | 42.8 | 64.1 |
| World score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| Americas score | 49.8 | 44.2 | 56.7 | 47.5 | 52.0 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# UNITED STATES

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **38** | **56.7** | ↗ |
| **1.** | **Economic transition** | | **14** | **65.7** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 15.6 | 38 | 62.4 | ↗ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 65 111.6 | 7 | 86.8 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 5 | 66.7 | – |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 116 384.5 | 6 | 77.6 | ↗ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 2.8 | 9 | 55.8 | – |
| 1.4 | INDUSTRIAL BASE | | 23 | 54.2 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 11.2 | 50 | 37.2 | ↘ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 3.6 | 14 | 79.7 | ↘ |
| **2.** | **Social transition** | | **42** | **62.7** | ↘ |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 66.9 | 32 | 73.2 | ↘ |
| 2.2 | WORK AND INCLUSION | | 36 | 67.5 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 73.5 | 31 | 67.0 | ↗ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 14.1 | 30 | 79.9 | ↘ |
| 2.2.3 | Early childhood care and education (%) | 46.3 | 52 | 43.8 | – |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 52.8 | 34 | 68.7 | ↘ |
| 2.4 | EQUALITY | | 62 | 49.0 | ↘ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 41.4 | 61 | 52.4 | ↘ |
| 2.4.2 | Income share held by the poorest quintile (%) | 5.1 | 65 | 38.8 | – |
| **3.** | **Environmental transition** | | **59** | **42.8** | ↑ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 19.7 | 69 | 17.8 | ↑ |
| 3.2 | BIODIVERSITY | | 44 | 49.0 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 48.3 | 37 | 48.3 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 33.3 | 52 | 33.3 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 2.5 | 38 | 81.9 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 3.6 | 11 | 59.2 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 9.1 | 53 | 45.3 | ↑ |
| **4.** | **Governance transition** | | **40** | **64.1** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 20 | 88.9 | ↘ |
| 4.1.1 | Voice and accountability index (z-score) | 1.0 | 24 | 85.1 | ↘ |
| 4.1.2 | Rule of law index (z-score) | 1.5 | 18 | 92.7 | ↘ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 5.0 | 63 | 50.6 | ↘ |
| 4.3 | TRANSPARENCY | | 27 | 58.2 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 71.0 | 21 | 71.0 | ↘ |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.0 | 45 | 49.7 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 106.2 | 67 | 47.6 | ↓ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# VIETNAM

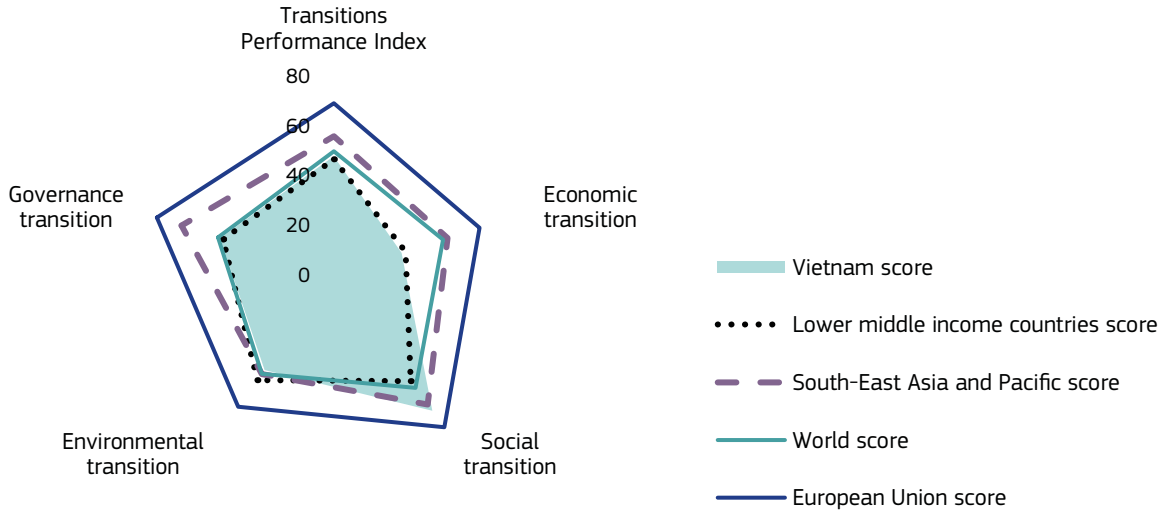
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **95.5** | **GDP PER CAPITA (current PPP$)** | **8 065.7** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **770.2** | **TRADE (% of GDP)** | **210.4** |

## RANKS AND SCORES

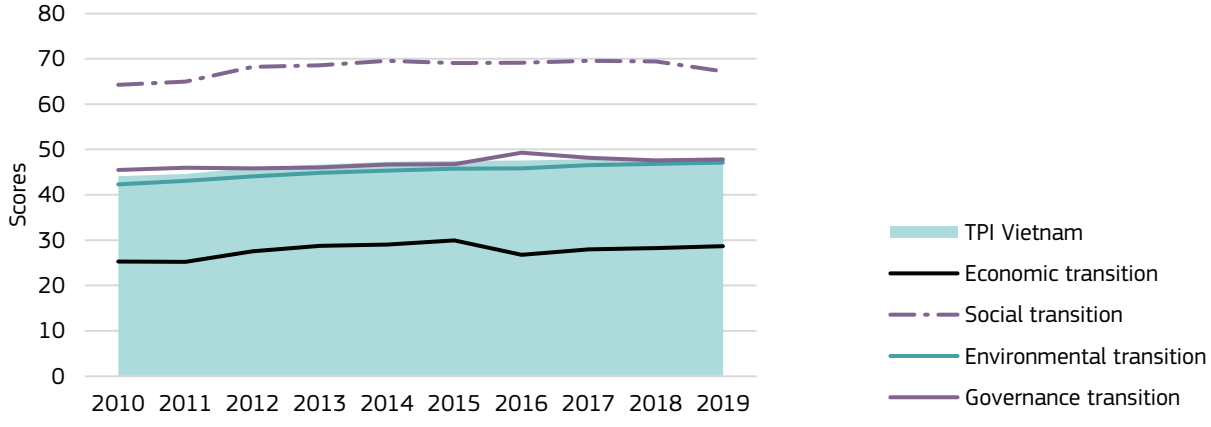
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **Vietnam ranks** | **56** | **62** | **35** | **54** | **61** |
| Vietnam score | 47.6 | 28.6 | 67.2 | 47.1 | 47.8 |
| World score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Lower middle income countries score | 46.4 | 30.3 | 52.5 | 52.0 | 46.6 |
| South-East Asia and Pacific score | 55.6 | 47.9 | 64.0 | 49.0 | 64.1 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# VIETNAM

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **56** | **47.6** | ↗ |
| **1.** | **Economic transition** | | **62** | **28.6** | ↑ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 11.1 | 55 | 44.6 | ↘ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 8 065.7 | 69 | 10.8 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 69 | 9.3 | ↑ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 11 969.6 | 71 | 8.0 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 0.5 | 56 | 10.5 | ↑ |
| 1.4 | INDUSTRIAL BASE | | 57 | 37.6 | ↑ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 16.0 | 24 | 53.3 | ↑ |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 0.0 | 65 | 14.0 | ↑ |
| **2.** | **Social transition** | | **35** | **67.2** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 64.2 | 53 | 64.0 | – |
| 2.2 | WORK AND INCLUSION | | 9 | 80.6 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 78.6 | 13 | 77.2 | ↓ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 10.4 | 10 | 85.2 | – |
| 2.2.3 | Early childhood care and education (%) | 67.1 | 16 | 78.5 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 50.3 | 38 | 64.2 | ↘ |
| 2.4 | EQUALITY | | 43 | 63.5 | ↗ |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 35.7 | 43 | 65.1 | ↑ |
| 2.4.2 | Income share held by the poorest quintile (%) | 6.7 | 38 | 58.8 | – |
| **3.** | **Environmental transition** | | **54** | **47.1** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 3.2 | 10 | 86.6 | ↘ |
| 3.2 | BIODIVERSITY | | 43 | 49.1 | ↑ |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 41.1 | 42 | 41.1 | ↑ |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 37.7 | 40 | 37.7 | ↑ |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 1.7 | 24 | 88.1 | – |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 0.7 | 71 | 12.2 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 8.1 | 57 | 40.4 | ↑ |
| **4.** | **Governance transition** | | **61** | **47.8** | – |
| 4.1 | FUNDAMENTAL RIGHTS | | 66 | 28.6 | ↑ |
| 4.1.1 | Voice and accountability index (z-score) | (1.4) | 70 | 7.4 | ↗ |
| 4.1.2 | Rule of law index (z-score) | (0.0) | 48 | 49.9 | ↑ |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 1.5 | 40 | 74.3 | ↘ |
| 4.3 | TRANSPARENCY | | 70 | 29.4 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 33.0 | 65 | 33.0 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 7.3 | 70 | 27.0 | ↓ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 54.3 | 39 | 81.1 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# WORLD

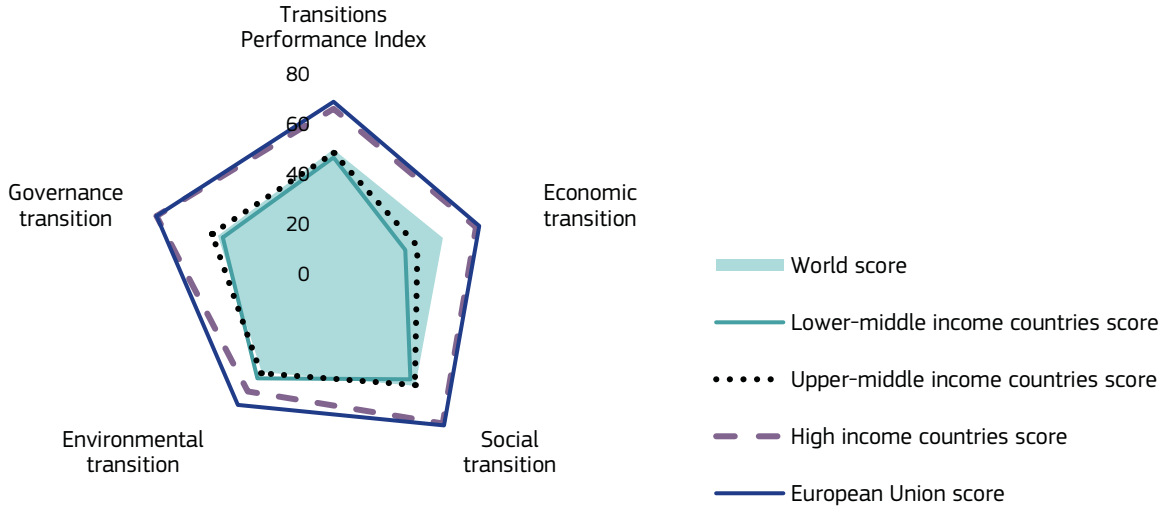
| | | | |
|---|---|---|---|
| **POPULATION (million inhabitants)** | **5 837.1** | **GDP PER CAPITA (current PPP$)** | **22 091.5** |
| **GROSS DOMESTIC PRODUCT (GDP) (billion PPP$)** | **128 950.5** | **TRADE (% of GDP)** | **54.2** |

## RANKS AND SCORES

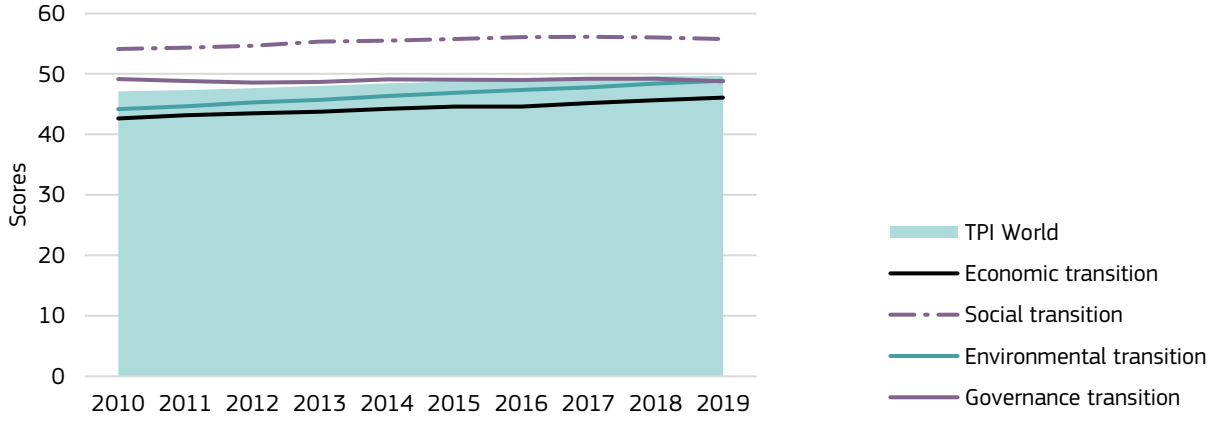
| 2019 | TPI | TRANSITIONS | | | |
|---|---|---|---|---|---|
| | | ECONOMIC | SOCIAL | ENVIRONMENTAL | GOVERNANCE |
| **World ranks** | **50** | **39** | **55** | **48** | **58** |
| World score | 49.7 | 46.1 | 55.8 | 48.9 | 48.8 |
| Lower-middle income countries score | 46.4 | 30.3 | 52.5 | 52.0 | 46.6 |
| Upper-middle income countries score | 48.2 | 35.4 | 55.4 | 49.4 | 51.2 |
| High income countries score | 66.0 | 60.0 | 74.4 | 58.4 | 74.5 |
| European Union score | 68.8 | 61.4 | 75.4 | 65.2 | 74.5 |

Transition leader [75-100] Strong transition [65-75[ Good transition [55-65[ Moderate transition [45-55[ Weak transition [0-45[

## TPI SCORES 2019




## TRANSITIONS PROGRESS 2010-2019



# WORLD

| | | 2019 | | | 2010-2019 |
|---|---|---|---|---|---|
| | | VALUE | RANK | SCORE | SCORE PROGRESS |
| **TRANSITIONS PERFORMANCE INDEX** | | | **50** | **49.7** | – |
| **1.** | **Economic transition** | | **39** | **46.1** | ↗ |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | 11.9 | 52 | 47.5 | ↗ |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | 22 091.5 | 47 | 29.5 | ↑ |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | 37 | 32.4 | ↗ |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | 42 408.0 | 48 | 28.3 | ↑ |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | 1.8 | 19 | 36.4 | – |
| 1.4 | INDUSTRIAL BASE | | 12 | 64.8 | ↘ |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | 17.6 | 17 | 58.7 | – |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | 2.3 | 16 | 74.0 | ↘ |
| **2.** | **Social transition** | | **55** | **55.8** | – |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | 63.8 | 57 | 62.5 | – |
| 2.2 | WORK AND INCLUSION | | 59 | 48.3 | – |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | 62.0 | 51 | 44.1 | ↓ |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | 30.6 | 60 | 56.3 | – |
| 2.2.3 | Early childhood care and education (%) | 44.4 | 54 | 40.6 | ↑ |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | 42.9 | 59 | 50.8 | ↘ |
| 2.4 | EQUALITY | | 53 | 58.0 | – |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | 38.8 | 52 | 58.1 | – |
| 2.4.2 | Income share held by the poorest quintile (%) | 6.6 | 43 | 57.8 | ↗ |
| **3.** | **Environmental transition** | | **48** | **48.9** | ↗ |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | 6.8 | 31 | 71.7 | – |
| 3.2 | BIODIVERSITY | | 47 | 45.0 | – |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | 40.2 | 44 | 40.2 | – |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | 34.3 | 50 | 34.3 | – |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | 3.4 | 42 | 76.0 | ↘ |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | 1.6 | 53 | 27.1 | ↑ |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | 10.4 | 45 | 51.8 | ↑ |
| **4.** | **Governance transition** | | **58** | **48.8** | ↘ |
| 4.1 | FUNDAMENTAL RIGHTS | | 50 | 48.1 | – |
| 4.1.1 | Voice and accountability index (z-score) | (0.2) | 58 | 43.2 | – |
| 4.1.2 | Rule of law index (z-score) | 0.1 | 44 | 53.0 | – |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | 5.3 | 66 | 48.9 | ↘ |
| 4.3 | TRANSPARENCY | | 53 | 43.1 | ↘ |
| 4.3.1 | Corruption perceptions index (0-100) | 43.9 | 44 | 43.9 | – |
| 4.3.2 | Basel anti-money laundering index (0-10) | 5.7 | 54 | 42.5 | ↘ |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | 75.3 | 58 | 67.5 | ↘ |

■ Transition leader [75-100] ■ Strong transition [65-75[ ■ Good transition [55-65[ ■ Moderate transition [45-55[ ■ Weak transition [0-45[

Progress or decline in scores (2010-2019): ↓ below -10%, ↘ below 0%, – between 0% and 6.5%, ↗ above 6.5%, ↑ above 13%.

Note: Progress lines use automatic scaling.

Source: European Commission, Transitions Performance Index 2020.

# APPENDIX III

## SOURCES AND DEFINITIONS

**TABLE III.1: List of acronyms**

| Acronyms | Name |
|---|---|
| BIG-AML | Basel Institute on Governance, Basel anti-money laundering index |
| COFOG | UNSD classification of the functions of government |
| EDGAR | Emission Database for Global Atmospheric Research, edgar.jrc.ec.europa.eu |
| EEA | European Environment Agency |
| ESA2010 | European System of National and Regional Accounts |
| Eurostat | European Statistical Office, https://ec.europa.eu/eurostat/ |
| FAOSTAT | Food and Agriculture Organization, Corporate Statistical Database |
| IEA-WEB | International Energy Agency, World Energy Balances |
| ILOSTAT | International Labour Organization database, https://ilostat.ilo.org/data/ |
| IMF-WEO | International Monetary Fund, World Economic Outlook |
| ISIC | UNSD International Standard Industrial Classification of All Economic Activities |
| IUCN | International Union for Conservation of Nature |
| JRC | Joint Research Centre of the European Commission |
| LOCF | Last observation carried forward |
| FOCB | First observation carried backward |
| NACE | European Nomenclature of Economic Activities |
| OECD | Organisation for Economic Cooperation and Development |
| TCB-TED | The Conference Board, Total Economy Database, April 2019 |
| TI | Transparency International |
| UN-SDGs | United Nations, Global Sustainable Development Goals Indicators Database, https://unstats.un.org/sdgs/indicators/database/ |
| UN-CTS | United Nations Survey of Crime Trends and Operations of Criminal Justice Systems |
| UNESCO-UIS | United Nations Educational, Scientific and Cultural Organization Institute of Statistics, http://www.uis.unesco.org |
| UNFCCC | United Nations Framework Convention on Climate Change, https://di.unfccc.int/time_series |
| UNODC | United Nations Office on Drugs and Crime, https://www.unodc.org/unodc/en/data-and-analysis/crime-and-criminal-justice.html |
| UNPD | United Nations Population Division, Department of Economic and Social Affairs (2019), World Population Prospects 2019, Online Edition. Rev. 1 |
| UNSD | United Nations Statistics Division |
| VAB | Value added data collected at basic prices |
| WB | World Bank |
| WB-WDI | World Bank World Development Indicators |
| WB-WGI | World Bank World Governance Indicators |
| WDPA | World Database on Protected Areas |
| WHO | World Health Organization |
| WIPO | World Intellectual Property Organization |

This appendix provides all sources and definitions for the different data series. It also includes, in italics, indicator- sub-pillar- or pillar- specific details on computation (see Appendix IV - Technical notes).

## PILLAR 1. ECONOMIC TRANSITION

*The pillar score is computed as the weighted average of sub-pillar scores.*

### SUB-PILLAR 1.1. EDUCATION

*The sub-pillar includes one indicator, government expenditure in education per student (% of GDP per capita). This indicator is computed as government expenditure in education as a percentage of GDP divided by student population (population aged 0-24 over total population):*

$$\frac{GEE/S}{GEE/POP} * 100 = \frac{GEE/GDP}{S/POP} * 100$$

where:

- GEE is government expenditure in education;
- GDP is gross domestic product;
- S is student population defined as population aged 0 to 24 years old;
- POP is total population.

*1.1.1 Government expenditure in education per student (% of GDP per capita)*

GEE/GDP: The Eurostat series is complemented by the UNESCO UIS series, the OECD series (up to 2016), and the UNDP series (up to 2012), in that order. Other sources are used for some countries. S/POP: UNPD data on population aged 0-24 is divided by UNPD data on total population.

Eurostat: Government expenditure in million euros by function (UNSD COFOG, replicated ESA2010), for Sector S13 General government, Function GF09 Education, Item TE Total general government expenditure, expressed as a percentage of GDP (gov_10a_exp). 2010-2018, LOCF, FOCB.

UNESCO-UIS: Total (current, capital and transfers) general government expenditure on education, expressed as a percentage of GDP. 2010-2018, LOCF, FOCB.

OECD: Public spending on education, primary to tertiary (% of GDP), 2016 or latest available. Public spending on education includes direct expenditure on educational institutions as well as education-related public subsidies given to households and administered by educational institutions. Public entities include: (i) ministries other than ministries of education; (ii) local and regional governments; and (iii) other public agencies. Public spending includes expenditure on schools, universities and other public and private institutions delivering or supporting educational services. Education expenditure covers expenditure on schools, universities and other public and private institutions delivering or supporting educational services. Source: Education at a glance: Educational finance indicators.

UNDP: Total public expenditure (current and capital) on education expressed as a percentage of GDP, years 2012 or latest available, International Human Development Indicators.

UNPD: Population aged 0-24 (both sexes combined). 2010, 2015, 2020, interpolation.

UNPD: Total population (both sexes combined). 2010-2019

### SUB-PILLAR 1.2. WEALTH

*The sub-pillar includes a single indicator*

*1.2.1 GDP per capita (PPP$)*

IMF-WEO: GDP, current prices, expressed in purchasing power parity (PPP) dollars divided by total population. For primary source information for PPP data, please refer to one of the following sources: the OECD, the World Bank, or the Penn World Tables. For further information, see: (i) Box A2 in the April 2004 World Economic Outlook; (ii) Box 1.2 in the September 2003 World Economic Outlook for a discussion on the measurement of global growth; (iii) Box A.1 in the May 2000 World Economic Outlook for a summary of the revised PPP-based weights; and (iv) Annex IV of the May 1993 World Economic Outlook. See also Anne Marie Gulde and Marianne Schulze-Ghattas, 'Purchasing Power Parity Based Weights for the World Economic Outlook', in *Staff Studies for the World Economic Outlook* (Washington: IMF, December 1993), pp. 106-23. Purchasing power parity; international dollars. 2010-2019.

## SUB-PILLAR 1.3. LABOUR PRODUCTIVITY AND R&D INTENSITY

*The sub-pillar score is computed as a composite (weighted average) of two indicator scores.*

*1.3.1 Output per worker (2011 constant PPP$ GDP)*

ILOSTAT: Output per worker (in 2011 constant PPP$ GDP), modelled estimates, November 2019. Labour productivity is an important economic indicator that is closely linked to economic growth, competitiveness, and living standards within an economy. Labour productivity represents the total volume of output (measured in terms of GDP) produced per unit of labour (measured in the number of employed persons or hours worked) during a given time reference period. The indicator allows data users to assess GDP-to-labour input levels and growth rates over time, thus providing general information about the efficiency and quality of human capital in the production process for a given economic and social context, including other complementary inputs and innovations used in production. 2010-2019.

*1.3.2 Gross expenditure on research and development GERD (% of GDP)*

UNESCO-UIS: Total intramural expenditure on research and development (R&D) performed in the national territory during a year, expressed as a percentage of the GDP of the national territory (i.e. the sum of gross value added by all resident producers in the economy, including distributive trades and transport, plus any product taxes and minus any subsidies not included in the value of the products) and multiplied by 100. Adapted from OECD (2015), *Frascati Manual 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development*. 2010-2018, LOCF, FOCB.

## SUB-PILLAR 1.4. INDUSTRIAL BASE

*The sub-pillar score is computed as a composite (weighted average) of two indicator scores.*

*1.4.1 Gross value added of manufacturing (% of GDP)*

The Eurostat series is complemented by the WB WDI series.

Eurostat: Gross value added of manufacturing, based on NACE category C, Manufacturing, expressed as a percentage of GDP. 2010-2019, LOCF, FOCB.

WB-WDI: Manufacturing value added, expressed as a percentage of GDP. Manufacturing refers to industries belonging to ISIC divisions 15-37. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The origin of value added is determined by ISIC, revision 3. Note: For countries that collect value added at basic prices (VAB countries), gross value added at factor cost is used as the denominator. 2010-2018, LOCF, FOCB. There is a break in series in 2015 for some countries.

*1.4.2 Patent families filed in two offices (per billion PPP$ GDP)*

*The indicator value assigned to a given year is computed as a moving average over the given year and the previous two years. Therefore, the data for 2010 is the average of values for years 2008 to 2010, and so forth. The 2016 moving average is carried forward to years 2017 to 2019.*

WIPO: Number of patent families filed by residents in at least two offices, expressed per billion PPP$ GDP. A 'patent family' is a set of interrelated patent applications filed in one or more countries or jurisdictions to protect the same invention. Patent families containing applications filed in at least two different offices is a subset of patent families where protection of the same invention is sought in at least two different countries. A 'patent' is a set of exclusive rights granted by law to applicants for inventions that are new, non-obvious, and commercially applicable. A patent is valid for a limited period (generally 20 years), during which patent holders can commercially exploit their inventions on an exclusive basis, and within a limited territory. In return, applicants are obliged to disclose their inventions to the public in a manner that enables others, skilled in the art, to replicate the invention. The patent system is designed to encourage innovation by providing innovators with time-limited exclusive legal rights, thus enabling them to appropriate the returns from their innovative activity. Source: World Intellectual Property Organization, Intellectual Property Statistics; International Monetary Fund, World Economic Outlook Database, October 2019 (PPP$ GDP). 2008-2016, LOCF.

## PILLAR 2. SOCIAL TRANSITION

*The pillar score is computed as the weighted average of sub-pillar scores.*

### SUB-PILLAR 2.1. HEALTH

*The sub-pillar includes a single indicator.*

*2.1.1 Healthy life expectancy at birth (years)*

WHO: Healthy life expectancy (HALE) at birth is the average number of years that a person can expect to live in 'full health' by taking into account years lived in less than full health due to disease and/or injury. The equivalent lost-healthy-year fractions required for the HALE calculation are estimated as the all-cause years-lost-due-to-disability-(YLD) rate per capita, adjusted for independent comorbidity, by age, sex, and country. Sullivan's method uses the equivalent lost-healthy-year fraction (adjusted for comorbidity) at each age in the current population (for a given year) to divide the hypothetical years of life lived by a period-life-table cohort at different ages into years of equivalent full-health and equivalent lost-healthy years. 2010, 2015-2016, interpolation, LOCF.

### SUB-PILLAR 2.2. WORK AND INCLUSION

*The sub-pillar score is computed as a composite (weighted average) of indicator scores.*

*2.2.1 Employment rate of the population aged 20-64 (%)*

*The Eurostat series is complemented by the ILOSTAT series. ILOSTAT computes employment-to-population ratios for age categories 15+, 15-24 and 25+ (see Section 2.2.2), but the age categories do not match Eurostat age categories. Instead, the employment rate is computed from ILOSTAT employment data by age groups (sum for 20-64 years old) divided by UNPD population data (20-64 years old).*

Eurostat: The employment rate is calculated by dividing the number of persons aged 20-64 in employment by the total population of the same age group. The indicator is based on the EU labour force survey. The survey covers the entire population living in private households and excludes those in collective households such as boarding houses, halls of residence and hospitals. Employed population consists of those persons who, during the reference week, did any work for pay or profit for at least one hour or were not working but had jobs from which they were temporarily absent. https://ec.europa.eu/eurostat/databrowser/view/T2020_10/default/table?lang=en. 2010-2018, LOCF, FOCB.

ILOSTAT: Total employment by age categories, sum for 20-64 years old. Employment comprises all persons of working age who during a specified brief period, such as one week or one day, were in the following categories: a) paid employment (whether at work or with a job but not at work); or b) self-employment (whether at work or with an enterprise but not at work). 2010-2019, LOCF, FOCB.

UNPD: Population aged 20-64 (both sexes combined). 2010, 2015, 2020, interpolation.

*2.2.2 Employment-to-population ratio gender gap 25+ (%)*

ILOSTAT: The employment-to-population ratio is the proportion of a country's working-age population that is employed (in this case, persons aged 25 and above). For the definition of employment, see Section 2.2.1. The working-age population is the population above the legal working age, but for statistical purposes it comprises everyone above a specified minimum-age threshold for which an inquiry on economic activity is made. 2010-2019.

To promote international comparability, the working-age population is often defined as all persons aged 15 and older, but this may vary from country to country based on national laws and practices. For many countries, this age corresponds directly to societal standards for education and work eligibility. However, in some countries, and developing countries in particular, it is often appropriate to include younger workers because 'working age' can, and often does, begin earlier. Some countries in these circumstances use a lower official bound and include younger workers in their measurements. Similarly, some countries have an upper limit for eligibility, such as 65 or 70 years, although this requirement is imposed rather infrequently.

The population base for employment-to-population ratios can vary across countries for issues other than differences in age limits. In most cases, the resident non-institutional population of working age living in private households is used, excluding members of the armed forces and individuals residing in mental, penal or other types of

institutions. However, many countries include the armed forces in the population base for their employment-to-population ratios even when they do not include them in the employment figures. In general, information for this indicator is derived from household surveys, mainly labour force surveys. However, some countries use 'official estimates' or population censuses as the source of their employment figures.

*2.2.3 Early childhood care and education (%)*

*The rate is computed as the average of enrolment rates for 0-to-2-year-olds and 3-to-5-year-olds, based on OECD data. If the enrolment rate for 0-to-2-year-olds is missing, the final value is computed as 0.7 times the enrolment rate for 3-to-5-year-olds. If both values are missing, the final value is computed as 0.7 times the UNESCO series. For Bosnia & Herzegovina, Canada and Singapore, other sources are used.*

OECD: Percentage of children enrolled in early childhood education and care services (ISCED 0 and other registered early childhood education and care services), 0-to-2-year-olds, and 3-to-5-year-olds, 2005-2017.

UNESCO-UIS: Gross enrolment ratio, pre-primary, both sexes (%) is the ratio of total enrolment, regardless of age, to the population of the age group that officially corresponds to the level of education shown. Pre-primary education refers to programmes at the initial stage of organised instruction, designed primarily to introduce very young children to a school-type environment and to provide a bridge between home and school. 2010-2018, LOCF, FOCB. Note: This indicator is included under the United Nations SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all; Target 4.2: By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education; Indicator 4.2.2: Participation rate in organised learning (1 year before the official primary entry age), by sex (%) SE_PRE_PARTN.

## SUB-PILLAR 2.3. FREE OR NON-REMUNERATED TIME

*The sub-pillar includes one indicator, annual free or non-remunerated time of the active population (hours), computed as:*

$$FNRT = \frac{A}{P}\frac{(H-T)}{H} = AR\left(1-\frac{T}{H}\right)$$

Where:

- FNRT is the free and non-remunerated time index (no unit, fluctuates between 0 and 100);
- A is active population (number);
- P is total population (number);
- AR=A/P is the active population rate (% of population);
- T is the average annual work per worker (hours);
- H is two thirds of the total annual number of hours, i.e. 16 hours times 365 days = 5 840 (hours).

*2.3.1 Active population (% of population aged 20-64)*

*The Eurostat series is complemented by ILOSTAT data.*

Eurostat: Active population (% of population aged 20-64). Number of active persons aged 20-64 divided by the total population of the same age group. The indicator is based on the EU labour force survey. The survey covers the entire population living in private households and excludes those in collective households such as boarding houses, halls of residence and hospitals. Employed population consists of those persons who, during the reference week, did any work for pay or profit for at least one hour or were not working but had jobs from which they were temporarily absent. Eurostat: https://ec.europa.eu/eurostat/databrowser/view/T2020_10/default/table?lang=en. 2010-2019.

ILOSTAT: Labour force aged 20-64 (in thousands). The labour force comprises persons in employment and unemployed persons, and it is equivalent to the active population. Persons in employment are those who during the reference week did any work for pay, or who were not working but had jobs from which they were temporarily absent. Family workers are included. To obtain the active

population rate, this indicator is divided by total population aged 20-64 (UNPD). The series obtained was used to complement the Eurostat series. 2010-2019, LOCF, FOCB.

*2.3.2 Average annual work per worker (hours)*

*To compute the sub-indicator hours worked per week of full-time employment (hours), the OECD series is complemented by The Conference Board series. In a few cases in which annual work per worker is not available, data for weekly hours per worker is used, in which case the OECD series is complemented by the ILOSTAT series, multiplied by a factor of 45.23, which corresponds to the average number of weeks of work weighted by employment for the countries for which both annual and weekly data is available.*

OECD: Average annual work per worker (hours). Average annual hours worked is defined as the total number of hours actually worked per year divided by the average number of people in employment per year. Actual hours worked include: (i) regular work hours of full-time, part-time and part-year workers; (ii) paid and unpaid overtime; and (iii) hours worked in additional jobs. They exclude time not worked because of: public holidays; annual paid leave; own illness; injury and temporary disability; maternity leave; parental leave; schooling or training; slack work for technical or economic reasons; strikes or labour disputes; bad weather; compensation leave and other reasons. The data cover employees and self-employed workers. This indicator is measured in hours per worker per year. The data are published with the following health warning: the data are intended for comparisons of trends over time; they are unsuitable for comparisons of the level of average annual hours of work for a given year, because of differences in their sources and method of calculation. 2010-2018, LOCF.

TCB: Average annual work per worker (hours). 2010-2019.

OECD: Average usual weekly hours worked on the main job. 2010-2018, LOCF.

ILOSTAT: Mean weekly hours usually worked per employed person by sex. 2010-2019, LOCF, FOCB. For Tunisia and Morocco, the values of Algeria are used. For the United Arab Emirates, the value of Saudi Arabia is used.

## SUB-PILLAR 2.4. EQUALITY

*The sub-pillar score is computed as a composite (weighted average) of indicator scores.*

*2.4.1 Gini coefficient of disposable income, post taxes and transfers (0-1 scale)*

*The WB-WDI series is complemented by the OECD series. For Saudi Arabia and Singapore, other sources are used.*

WB WDI: The Gini index measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. Data are based on primary household-survey data obtained from government statistical agencies and World Bank country departments. World Bank, Development Research Group. For more information and methodology, see PovcalNet (iresearch.worldbank.org/PovcalNet/index.htm). 2010-2019, LOCF, FOCB.

OECD: Gini coefficient of disposable income, post taxes and transfers. The Gini coefficient is based on the comparison of cumulative proportions of the population against cumulative proportions of income they receive, and it ranges between 0 in the case of perfect equality and 1 in the case of perfect inequality. New income definition since 2012. Working age population 18-65. OECD: Income Distribution Database: https://stats.oecd.org/Index.aspx?QueryId=66597. 2010-2018, LOCF, FOCB.

*2.4.2 Income share held by the poorest quintile (%)*

WB-WDI: Income share held by lowest 20%. Percentage share of income or consumption is the share that accrues to subgroups of population indicated by deciles or quintiles. Percentage shares by quintile may not sum to 100 because of rounding. Data are based on primary household-survey data obtained from government statistical agencies and World Bank country departments. Data for high-income economies are from the Luxembourg Income Study database. World Bank, Development Research Group. For more information and methodology, see PovcalNet iresearch.worldbank.org/PovcalNet/index.htm. 2010-2018, LOCF, FOCB. For New Zealand, Saudi Arabia and Singapore, other sources are used.

## PILLAR 3. ENVIRONMENTAL TRANSITION

*The pillar score is computed as the average of sub-pillar scores.*

### SUB-PILLAR 3.1. EMISSIONS REDUCTION

*The sub-pillar includes a single indicator.*

*3.1.1 Gross greenhouse-gas emissions (tonnes per capita)*

*For this indicator, several incomplete databases are combined. EEA-Eurostat data are complemented by OECD (tonnes per capita), or by UNFCCC or JRC/WB-WDI (up to 2012) gross greenhouse-gas-emissions data (kt $CO_2$ eq) divided by population (UNPD).*

EEA-Eurostat: Greenhouse-gas emissions in tonnes per capita; for all sectors and indirect $CO_2$ (excluding land use, land-use change and forestry (LULUCF) and memo items, including international aviation). The EU as a party to the United Nations Framework Convention on Climate Change (UNFCCC) reports annually its greenhouse-gas inventory for the year t-2 and within the area covered by its Member States. The inventory contains data on carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), sulphur hexafluoride (SF6) and nitrogen trifluoride ($NF_3$). The EU inventory is fully consistent with national greenhouse-gas inventories compiled by the EU Member States. This indicator is used to measure progress on SDG 13: Take urgent action to combat climate change and its impacts. (Source: EEA). 2010-2017, LOCF.

OECD: Greenhouse gases refer to the sum of eight gases that have direct effects on climate change: carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$), chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF6) and nitrogen trifluoride ($NF_3$). The data are expressed in $CO_2$ equivalents and refer to gross direct emissions from human activities. $CO_2$ refers to gross direct emissions from fuel combustion only and data are provided by the International Energy Agency. Other air emissions include: (i) emissions of sulphur oxides (SOx) and nitrogen oxides (NOx) given as quantities of $SO_2$ and $NO_2$; (ii) emissions of carbon monoxide (CO); and (iii) emissions of volatile organic compounds (VOCs), excluding methane. Air and greenhouse-gas emissions are measured in thousand tonnes, tonnes per capita or kilograms per capita except for $CO_2$, which is measured in million tonnes and tonnes per capita. https://data.oecd.org/air/air-and-ghg-emissions.htm. 2010-2017, LOCF, FOCB.

UNFCCC: Time Series, GHG total without LULUCF, in kt $CO_2$ equivalent. Greenhouse-gas emissions in tonnes per capita, all sectors and indirect $CO_2$ (excluding LULUCF and memo items, including international aviation, for $CO_2$, $N_2O$ in $CO_2$ equivalent, $CH_4$ in $CO_2$ equivalent, HFC in $CO_2$ equivalent, PFC in $CO_2$ equivalent, SF6 in $CO_2$ equivalent, $NF_3$ in $CO_2$ equivalent). https://di.unfccc.int/time_series. 2010-2017, LOCF. For Montenegro, the Second Biennial Report on Climate Change 2019 to UNFCCC was used, Table 5, page 50.

JRC/WB-WDI: Total greenhouse-gas emissions (kt of $CO_2$ equivalent), EN.ATM.GHGT.KT.CE. Source: European Commission, Joint Research Centre (JRC)/Netherlands Environmental Assessment Agency (PBL). Emission Database for Global Atmospheric Research (EDGAR), EDGARv4.2 FT2012: edgar.jrc.ec.europa.eu. 2010-2012, LOCF.

UNPD: Total population (both sexes combined). 2010-2019.

### SUB-PILLAR 3.2. BIODIVERSITY

*The sub-pillar score is computed as a composite (weighted average) of indicator scores.*

*3.2.1 Average proportion of terrestrial key biodiversity areas (KBAs) covered by protected areas (%)*

UN SDGs: Indicator 15.1.2: Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type. Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss. Target 15.1: By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements. http://www.sdg.org/datasets/indicator-15-1-2-average-proportion-of-terrestrial-key-biodiversity-areas-kbas-covered-by-protected-areas-percent-3/geoservice. 2010-2018, LOCF.

*3.2.2 Average proportion of freshwater KBAs covered by protected areas (%)*

UN SDGs: Indicator 15.1.2: Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type. Target 15.1: By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements. Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss. SDGs database: http://www.sdg.org/datasets/indicator-15-1-2-average-proportion-of-freshwater-key-biodiversity-areas-kbas-covered-by-protected-areas-percent-3/geoservice. 2010-2018, LOCF.

*3.2.3 Pesticide use per area of cropland (kg/ha)*

*The FAOSTAT series on use of pesticides per area of cropland is complemented by the Eurostat series on sales of fungicides and bactericides, multiplied by an average factor of 1.94, which corresponds to the mode multiplier between the two series (the mode is lower than the mean and the median, and preferred due to the presence of several outlier cases).*

FAOSTAT: Agri-environmental indicator on the use of pesticides per area of cropland (which is the sum of arable land and land under permanent crops) at national level, expressed in kg/ha. 2010-2017, LOCF.

Eurostat: Pesticide sales, fungicides and bactericides (kg). Annual sales of active substances contained in plant-protection products placed on the market, according to major groups in the harmonised classification of substances: (i) fungicides and bactericides (excluding fungicides of microbiological or botanical origin); (ii) herbicides, haulm destructors and moss killers; (iii) insecticides and acaricides (excluding insecticides of microbiological or botanical origin); (iv) molluscicides; (v) plant growth regulators; and (vi) other plant-protection products. The classification of the active substances in plant-protection products is Annex III to Commission Regulation (EU) 2017/269 of 16 February 2017 amending Regulation (EC) No 1185/2009 of the European Parliament and of the Council concerning statistics on pesticides. 2011-2018, LOCF.

FAOSTAT: Cropland use area (ha), in line with the FAO 2020 World Census of Agriculture and the FAO System of Environmental-Economic Accounting for Agriculture, Forestry and Fisheries (SEEA AFF), which is an internationally agreed methodological document supporting the UN standard: System of Environmental-Economic Accounting Central Framework (SEEA CF). 2010-2017, LOCF.

## SUB-PILLAR 3.3. RESOURCE PRODUCTIVITY

*The sub-pillar includes a single indicator.*

*3.3.1 GDP per unit of domestic material consumption of raw materials (PPP$ per kg)*

*Resource productivity is a measure of the total amount of materials directly used by an economy. It provides insights into whether decoupling between the use of natural resources and economic growth is taking place. The indicator is defined as PPP$ GDP divided by domestic material consumption (DMC). PPP$ GDP is taken from the IMF WEO series, divided by DMC from Eurostat, complemented by the UN SDGs series.*

IMF-WEO: GDP, current prices, expressed in purchasing power parity (PPP) dollars. For primary source information for PPP data, please refer to one of the following sources: the OECD, the World Bank, or the Penn World Tables. For further information, see: (i) Box A2 in the April 2004 World Economic Outlook; (ii) Box 1.2 in the September 2003 World Economic Outlook for a discussion on the measurement of global growth; (iii) Box A.1 in the May 2000 World Economic Outlook for a summary of the revised PPP-based weights; and (iv) Annex IV of the May 1993 World Economic Outlook. See also Anne Marie Gulde and Marianne Schulze-Ghattas, 'Purchasing Power Parity Based Weights for the World Economic Outlook', in *Staff Studies for the World Economic Outlook* (Washington: IMF, December 1993), pp. 106-23. Purchasing power parity; international dollars. 2010-2019.

Eurostat: DMC expressed in tonnes. DMC measures the total amount of materials directly used by an economy. It is defined as the annual quantity of raw materials extracted from the domestic territory of the local economy, plus all physical imports minus all physical exports. The term 'consumption', as used in DMC, denotes apparent consumption and not final consumption. DMC does not include upstream flows related to imports and exports of raw materials and products originating

outside of the local economy. https://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Resource_productivity. 2010-2018, LOCF, FOCB.

UN SDGs: DMC (tonnes), type of product category 'raw'. Goal 12: Ensure sustainable consumption and production patterns; Target 12.2: By 2030, achieve the sustainable management and efficient use of natural resources. 2010-2017, LOCF.

### SUB-PILLAR 3.4 ENERGY PRODUCTIVITY

*The sub-pillar includes a single indicator.*

*3.4.1 Energy productivity (PPP$ per kg of oil equivalent, koe)*

IEA-WEB: Division of GDP (2015 constant PPP$ GDP) by total energy supply for a given calendar year. Energy productivity measures the productivity of energy consumption, and provides a picture of the degree of decoupling of energy use from growth in GDP. It is equivalent to the inverse of energy efficiency. Total energy supply is made up of production, plus imports, minus exports, minus international marine bunkers, minus international aviation bunkers, plus/minus stock changes. Source: International Energy Agency (IEA), World Energy Balances, 2020, https://www.iea.org/subscribe-to-data-services/world-energy-balances-and-statistics, all rights reserved. 2010-2019, LOCF.

## PILLAR 4. GOVERNANCE TRANSITION

*The pillar score is computed as the weighted average of sub-pillar scores.*

### SUB-PILLAR 4.1. FUNDAMENTAL RIGHTS

*The sub-pillar score is computed as a composite (weighted average) of indicator scores.*

*4.1.1 Voice and accountability (z-score)*

WB-WGI: Perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media. https://info.worldbank.org/governance/wgi/pdf/va.pdf. 2010-2018, LOCF.

*4.1.2 Rule of law (z-score)*

WB-WGI: Perceptions of: (i) the extent to which respondents have confidence in – and abide by – the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts; and (ii) the likelihood of crime and violence. https://info.worldbank.org/governance/wgi/pdf/rl.pdf. 2010-2018, LOCF.

### SUB-PILLAR 4.2. SECURITY

*The sub-pillar includes a single indicator.*

*4.2.1 Homicide rate (per 100 000 inhabitants)*

UNODC: Victims of intentional homicide, rates per 100 000 population. https://dataunodc.un.org/content/data/homicide/homicide-rate. 2010-2018, LOCF, FOCB.

### SUB-PILLAR 4.3. TRANSPARENCY

*The sub-pillar score is computed as a composite (weighted average) of indicator scores.*

*4.3.1 Corruption perceptions index (CPI) (index 0-100)*

TI: Perceived levels of public-sector corruption, as determined by expert assessments and opinion surveys. The CPI is a composite index based on a combination of surveys and assessments of corruption from 13 different sources. It scores and ranks countries based on how corrupt a country's public sector is perceived to be, with a score of 0 representing a high level of corruption and a score of 100 representing a 'clean' country. The sources of information used for the 2017 CPI are based on data gathered in the 24 months preceding the publication of the index. The CPI includes only sources that provide a score for a set of countries/territories and that measure perceptions of corruption in the public sector. For a country/territory to be included in the ranking, it must be included in a minimum of three of the CPI's data sources. Transparency International: https://www.transparency.org/cpi2018. 2012-2018, LOCF, interpolation, FOCB.

*4.3.2 Basel anti-money laundering index (0-100)*

BIG-AML: The Basel anti-money laundering (AML) index measures the risk of money laundering and terrorist financing (ML/TF) in countries by using data from publicly available sources such as the Financial Action Task Force (FATF), Transparency International, the World Bank and the World Economic Forum. It aggregates into one overall risk score 15 indicators of countries': (i) adherence to regulations to prevent money laundering and counter the financing of terrorism (AML/CFT); (ii) levels of corruption; (iii) financial standards; (iv) political disclosure; and (v) commitment to the rule of law. By combining these data sources, the overall risk score represents a holistic assessment addressing structural as well as functional aspects of the country's resilience against ML/TF. The Basel AML index does not measure the actual amount of money laundering or terrorist financing activity, but rather is designed to assess the risk of such activity. ML/TF risk is understood as a broad risk area in relation to a country's vulnerability to ML/TF and its capacities to counter it. Source: Public Edition of the Basel AML index; 2018 data: https://www.baselgovernance.org/basel-aml-index/public-ranking; data since 2012: https://www.baselgovernance.org/basel-aml-index. Scores from 2012-2017 and 2017-2018 are all comparable, there was a recalculation in 2017 (two data series for 2017). The data from before 2016 are computed again by adjusting the series to the recalculation of 2017, following a rule of three. The 2012 values are applied to 2010 and 2011. 2012-2019, FOCB, adjusted values 2012-2016.

## SUB-PILLAR 4.4. SOUND PUBLIC FINANCES

*The sub-pillar includes a single indicator.*

*4.4.1 General government gross debt (% of GDP)*

IMF-WEO: General government gross debt, expressed as a percentage of GDP. Gross debt consists of all liabilities that require payment or payments of interest and/or principal by the debtor to the creditor at a date or dates in the future. This includes debt liabilities in the form of special drawing rights (SDRs); currency and deposits; debt securities loans; insurance; pensions and standardised guarantee schemes; and other accounts payable. Thus, all liabilities in the GFSM 2001 system are debt, except for: (i) equity and investment fund shares; (ii) financial derivatives; and (iii) employee stock options. Debt can be valued at current market, nominal, or face values (GFSM 2001, paragraph 7.110). 2010-2019, including IMF estimates.

**TABLE III.2: TPI sources and imputation**

| Transitions Performance Index | | SOURCE | DATES | IMPUTATION |
|---|---|---|---|---|
| | Income group (GNI per capita in US$ (Atlas methodology) | WB | 2010-2019 | None |
| | Region aggregates | Developers | N/A | N/A |
| **1.** | **Economic transition** | | | |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | | | |
| | Total general government expenditure in education (% of GDP) | Eurostat | 2010-2018 | LOCF, FOCB |
| | Government expenditure in education (% of GDP) | UNESCO-UIS | 2010-2018 | LOCF, FOCB |
| | Population aged 0-24 (both sexes combined) | UNPD | 2010, 2015, 2020 | Interpolation |
| | Total population (both sexes combined) | UNPD | 2010-2019 | None |
| 1.2 | WEALTH | | | |
| | GDP per capita (current dollars PPP$) | IMF-WEO | 2010-2020 | IMF estimates |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | | |
| 1.3.1 | Output per worker (2011 constant PPP$ GDP) | ILOSTAT | 2010-2019 | None |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | OECD | 2000-2018 | LOCF, FOCB |
| 1.4 | INDUSTRIAL BASE | | | |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | Eurostat | 2010-2019 | LOCF, FOCB |
| | Gross value added of manufacturing (% of GDP) | WB-WDI | 2010-2018 | LOCF, FOCB |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | WIPO | 2008-2016 | LOCF |
| **2.** | **Social transition** | | | |
| 2.1 | HEALTH | | | |
| | Healthy life expectancy at birth (years) | WHO | 2010, 2015-16 | Interpolation, LOCF |
| 2.2 | WORK AND INCLUSION | | | |
| 2.2.1 | Employment rate of population aged 20-64 (%) | Eurostat | 2010-2018 | LOCF, FOCB |
| | Employment of population aged 20-64 | ILOSTAT | 2010-2019 | LOCF, FOCB |
| | Population aged 20-64 | UNPD | 2010, 2015, 2020 | Interpolation |
| 2.2.2 | Employment-to-population ratio gender gap of population 25+ (%) | ILOSTAT | 2010-2019 | None |
| 2.2.3 | Adjusted net enrolment rate, one year before the official primary entry age, both sexes (%) | UNESCO-UIS | 2013-2019 | LOCF, FOCB |
| | Children enrolled in early childhood and care services (%) | OECD | 2005-2017 | LOCF, FOCB |
| 2.3 | FREE OR NON REMUNERATED TIME | | | |
| | Active population (%) | Eurostat | 2010-2019 | None |
| | Labour force aged 20-64 | ILOSTAT | 2010-2019 | LOCF, FOCB |
| | Annual hours worked (hours) | OECD | 2010-2018 | LOCF |
| | Average annual hours worked per worker (hours) | TCB-TED | 2010-2019 | None |
| | Average usual weekly hours worked on the main job (hours) | OECD | 2010-2018 | LOCF |
| | Hours worked per week of full-time employment (hours) | Eurostat | 2010-2019 | None |
| | Mean weekly hours usually worked per employed person (hours) | ILOSTAT | 2010-2019 | LOCF, FOCB |
| 2.4 | EQUALITY | | | |
| 2.4.1 | Gini index, disposable income post taxes and transfers (0-100) | OECD | 2010-2019 | LOCF, FOCB |
| | Gini index (0-100) | WB | 2010-2018 | LOCF, FOCB |
| 2.4.2 | Income share held by the poorest quintile (%) | WB-WDI | 2010-2018 | LOCF, FOCB |
| **3.** | **Environmental transition** | | | |
| 3.1 | EMISSION REDUCTION | Eurostat | 2010-2017 | LOCF |
| | GHG emissions (tonnes per capita) | EEA | 2010-2017 | LOCF |
| | GHG emissions, all sectors and indirect CO2 (excluding LULUCF and memo items, including international aviation) | OECD | 2010-2017 | LOCF, FOCB |
| | GHG emissions (GHG, tonnes per capita) | UNFCCC | 2010-2017 | LOCF |
| | GHG emissions total without LULUCF (kt $CO_2$ equivalent) | WB-WDI | 2010-2012 | LOCF |
| 3.2 | BIODIVERSITY | | | |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | UN-SDGs | 2010-2018 | LOCF |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | UN-SDGs | 2010-2018 | LOCF |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | FAOSTAT | 2010-2017 | LOCF |
| | Fungicide and bactericide sales (kg) | Eurostat | 2011-2018 | LOCF |
| | Cropland area (ha) | FAOSTAT | 2010-2017 | LOCF |

*(Continued)*

| | | | | |
|---|---|---|---|---|
| 3.3 | RESOURCE PRODUCTIVITY | | | |
| | Resource productivity and domestic material consumption (kg) | Eurostat | 2010-2018 | LOCF, FOCB |
| | Domestic material consumption, by type of raw material (tonnes) | UN-SDGs | 2010-2017 | LOCF |
| | Gross domestic product (current prices $PPP) | IMF-WEO | 2010-2020 | IMF estimates |
| 3.4 | ENERGY PRODUCTIVITY | | | |
| | GDP over total energy supply (2015 PPP$ per koe) | IEA | 2010-2019 | LOCF |
| **4.** | **Governance transition** | | | |
| 4.1 | FUNDAMENTAL RIGHTS | | | |
| 4.1.1 | Voice and accountability index (index) | WB-WGI | 2010-2018 | LOCF |
| 4.1.2 | Rule of law Index (index) | WB-WGI | 2010-2018 | LOCF |
| 4.2 | SECURITY | | | |
| | Homicide rate (per 100 000 inhabitants) | UNODC | 2010-2017 | LOCF, FOCB |
| 4.3 | TRANSPARENCY | | | |
| 4.3.1 | Corruption perceptions index (0-100) | TI | 2012-2018 | LOCF, interpolation, FOCB |
| 4.3.2 | Basel anti-money laundering index (0-10) | BIG-AML | 2012-2019 | FOCB, adjustment 2012-2016 |
| 4.4 | SOUND PUBLIC FINANCES | | | |
| | Government gross debt (% of GDP) | IMF-WEO | 2010-2020 | IMF estimates |

Source: European Commission, Transitions Performance Index 2020.

# APPENDIX IV

## TECHNICAL NOTES

## 1. INTRODUCTION

This appendix presents the succession of methodological choices and computations performed in constructing the Transitions Performance Index (TPI). The appendix is comprehensive, in the sense that details are aimed at the replicability of computations.

The first section presents the criteria behind the selection of indicators, and contains details on the types of indicators. The subsequent sections present: (i) technical decisions, each one of which has possible alternatives that would affect numerical results (scores and rankings); and (ii) the indicators' development over time and across countries.

## 2. CONSULTATIONS

The conceptual framework and the selection of indicators were discussed with experts and stakeholders in the areas being measured. The overall structure of the index, i.e. its decomposition into pillars and indicators, was a top-down process driven by experts in the multidimensional phenomenon under measurement. The final choice of elementary indicators corresponding to each pillar followed a bottom-up approach driven by: (i) the availability of relevant data and proxies; and (ii) statistical considerations.

The criteria that have guided indicator choices, in line with the acceptability/legitimacy objective, are as follows.

- PARSIMONY, DISTINCTIVENESS AND NON-REDUNDANCY: The index developers aimed at a reduced number of pillars to avoid 'drowning' the different elements in the mass. The current number of four pillars is an absolute maximum. In addition, a sub-pillar within a pillar is measured by one to three indicators reflecting specific priorities.

- RELEVANCE TO THE TOPIC: The chosen elementary indicators must 'represent' the associated dimension as described in words, and must also develop in a statistically similar way to the dimension – they are 'proxies' for the dimension. If the structure of pillars/dimensions is correct and if the proxies are well chosen, then, by construction, all issues are considered. Adding indicators would imply building a dashboard. This route was ruled out, as many dashboards already exist, which the present index aims to complement.

- INTERNATIONAL COMPARABILITY: Beyond being good proxies, indicators must pass the test of international availability and comparability. Among other things, this implies following similar classifications to those used internationally. The index therefore uses indicators from international organisations as much as possible; national statistics were used only marginally to impute missing data points.

- HARD DATA PREFERRED OVER SOFT DATA: The chosen indicators must be as objective and robust as possible. For that reason, hard data and recognised composite indicators were preferred, and perception surveys were avoided as much as possible.

- OUTPUT INDICATORS PREFERRED OVER INPUT INDICATORS: In principle, the focus is on output indicators, with few exceptions. The role of the index is not to be prescriptive in terms of choice of policy mix, but to monitor the state of the countries (or regions) in terms of outcomes.

- Other criteria that were taken into consideration:
  - global coverage (for global roll-out);
  - (i) significance to global initiatives (for instance the UN sustainable development goals); and (ii) effectiveness in advancing the transition performance agenda, in terms of objectives, priorities and strategies;
  - cross-validation in previous theoretical or empirical research on transition performance;
  - the credibility and expertise of sources, accuracy in measurement, and access to – and affordability of – data (open-source data preferred over proprietary data);
  - the need to address a recognised weakness of gross domestic product (GDP) measurement.

# 3. SELECTION OF INDICATORS

This section presents the final indicators used in the index, ordered by type. The selection of individual indicators includes all issues related to the computation of indicators that are based on: (i) scaling (by GDP, per capita, etc.); and/or (ii) one or more indicators, such as composite indicators.

## 3.1 SCALING

A total of 20 hard-data indicators were selected from Eurostat and a variety of international organisations and NGOs.

Raw indicators are usually highly correlated with population or gross domestic product (GDP), and require scaling by some relevant metric so they can be compared internationally. International organisations usually provide scaled versions of raw indicators. Units of measurement provided for each indicator reflect the chosen metric. Examples include: patent families filed in two offices (per billion purchasing power parity dollars (PPP$) GDP), energy productivity (PPP$ per kilogram of oil equivalent), and the homicide rate (per 100 000 inhabitants).

Five composite indicators are included in the index, computed by a series of specialised international organisations (such as the World Bank) and NGOs. To avoid the risk of duplicating indicators, only tightly defined composite indicators were considered, aimed at capturing mutlidimensional phenomena for which hard data are not available at the global level.

The EU27 data considers the current 27 Member States of the European Union over the entire 2010-2019 decade (i.e. the United Kingdom is not included). The World data considers the 72 countries included in the index. For these two country aggregates (EU27 and World), the computation of values is performed based on the following rules.

1. When the data point for a particular indicator is available for EU27, for example in Eurostat, then that data point is used.

2. For indicators not scaled, such as 2.1 - Healthy life expectancy at birth (years) or 4.1.2 - Rule of law Index, or scaled by population, such as 1.2 - GDP per capita, current dollars (PPP$), country aggregates are computed as weighted averages of country values, weighted by countries' population (population is the default weight for country aggregates).

3. For indicators scaled by GDP, such as 4.4 - Government gross debt (% of GDP), country aggregates are weighted by PPP$ GDP.

4. For indicator 3.2.3 Pesticide use per area of cropland (kg/ha), country aggregates are weighted by area of cropland (ha).

## 3.2 COVERAGE

The index has been computed annually for 10 years, covering the period 2010-2019.

The index covers 72 countries and the EU. These countries were selected based on the following criteria: EU Member States, associated countries, Organisation for Economic Co-operation and Development (OECD) member countries, countries with at least 40 million inhabitants and a GDP per capita higher than USD 2 000 (IMF current dollar estimates). As a result, the TPI covers countries representing 91% of world GDP in PPP$. EU-associated country the Faroe Islands had to be left out of the index due to missing data.

The rationale for this choice was to have wide economic coverage, but also to avoid a comparison between countries with large differences, for which diverse capabilities to address transitions may imply prioritising indicators and weights differently. Moreover, data were missing more frequently for several countries with GDP per capita lower than USD 2 000.

## 3.3 IMPUTATION OF MISSING DATA

Missing data was imputed based on time trends, according to the following three rules.

1. Linear forecasting between two data points, whenever data were available for a few years only. Example: Population aged 0-24 is available only for years 2010, 2015 and 2020.

2. Last observation carried forward (LOCF) coupled with first observation carried backward (FOCB). This is a transparent and commonly used method; the main drawback is that time trends are not accounted for.

3. Data points from national or other sources were used in a few cases.



Whenever missing data points remain, there is an implicit imputation at the score level, which is equivalent to the score of the given country in the dimension in which that indicator is included (more on this below).

Missing data can also be imputed by using data from similar countries (such as nearest-neighbour techniques) or by statistical inference (such as imputation of the sample average score). The choice was made not to use these techniques. A cut-off of a maximum of five missing indicators per country implied leaving out of the index a single country, the Faroe Islands.

## 4. NORMALISATION

After data treatment and imputation, a third decision is related to the distribution of indicators and the treatment of outliers. This has an impact on normalisation bounds and country scores.

### 4.1 NORMALISATION BOUNDS AND TREATMENT OF OUTLIERS

Indicators that strongly depart from normal distributions are assessed by a combination of moments (mean, variance, skewness, kurtosis) and quartiles (1st, median, 3rd). Outliers are potential candidates for winsorisation (for example through 'goalposts'), or transformation (for instance by taking logs).

For this index, two indicators with absolute skewness greater than 2 and kurtosis greater than 3.5 (Groeneveld and Meeden, 1984) required transformation: 1.4.2 - Patent families filed in two offices (per billion PPP$ GDP) and 4.2.1 - Homicide rate (per 100 000 inhabitants).

The transformation used is:

$$transformed\ value = \ln(original\ value * f + 1)$$

Where $f$ is an adjustment factor, a multiple of 10 aimed at achieving average, skewness and kurtosis within the expected ranges ($f$ is 100 for 1.4.2 and 1 for 4.2.1).

In addition, 'goalposts' (upper and lower normalisation bounds) were set for all indicators (including the transformed indicators), based on the following three criteria.

1. Original value bounds were preserved for composite indicators and some percentages.

2. For three indicators, goalpost ranges (lower and upper values) were set based on EU targets.

   - 2.2.1 - Employment rate of population 20-64 (%): the goalpost range was set around the EU target of at least 75% of the employment rate, with a lower bound at 40% and an upper bound at 90%.

   - 3.1 - Gross greenhouse-gas (GHG) emissions (tonnes per capita): the bounds were set at 0 and 24 tonnes per capita, in line with the EU target of a 40% cut in GHG emissions from 1990 levels by 2030, as applied to EU Member States (bounds rounded to the closest integers). This being a negative indicator (higher values indicate worse performance), any value below or at 0 tonnes per capita gets a score of 100, and any value above or at 24 tonnes per capita gets a score of 0.

**TABLE IV.1: Energy productivity EU target analysis for goalposts**

| | 2018 | | 2020 | | 2030 |
|---|---|---|---|---|---|
| EU27 GDP (billion PPS€) | 13.5 | 1% annual growth | 13.8 | 1% annual growth | 15.5 |
| EU primary energy consumption (Mtoe) | 1 376.0 | EU 2020 target | 1 479.0 | 32.5% reduction | 998.0 |
| EU average energy productivity (PPS€ per koe) | 8.9 | | 8.4 | | 14.0 |
| • Iceland (min) | 2.1 | | | | 3.4 |
| • Ireland (max) | 18.7 | | | | 29.7 |

Source: European Commission, Transitions Performance Index 2020.

- 3.4 - Energy productivity (PPS€ per koe): as was the case with indicator 3.1, bounds were set at 0 and 20, in line with the two EU targets below.

- The EU target of a 20% increase in energy efficiency by 2020 was meant to imply a target for the EU of 1479 Mtoe by 20201.

- The EU target of a further 32.5% increase in energy efficiency by 2030 implies a target for the EU27 of 998 Mtoe by 2030.
  With a value of 8.9 PPS€ per koe in 2018, and a GDP of 13.5 billion PPS€ in 2018, and assuming average annual GDP growth of 1%, the two targets combined imply target values for energy productivity of approximately 8.4 and 14 PPS€ per koe in 2020 and 2030 respectively. This implies that the 2020 target was already met in 2018, and therefore the 2030 bound is kept (14 implies a score of 100), with 0 as the lower bound (score of 0).

3. For the remaining indicators, goalpost ranges were set based on public-policy considerations, statistical requirements (winsorisation of outliers), or a combination of the two.

## 4.2 SCORING

The numerical score attributed to a country for an elementary indicator value results from some sort of normalisation, i.e. translating the initial numbers on a 0-100 scale or on a z-scale. There are several ways to perform this normalisation, which affect the relative indicator values and the countries' index scores and rankings. In turn, these indicator values, index scores and rankings affect the *de facto* statistical balance among elementary indicators, and could therefore affect the determination of weights and the development of the index over time.

The choice was made to score countries in the 0-100 range with goalpost normalisation. Goalposts are lower and upper bounds that reflect the range of values deemed optimal from a public-policy perspective. For an indicator for which higher values indicate better outcomes (a positive indicator), this implies that any value above the upper bound scores 100, and any value below the lower bound scores 0; the contrary is true for a negative indicator.

This normalisation method has many advantages: (i) stable scores over the ten-year coverage period; (ii) stable scores in future editions; (iii) potential outliers are taken care of; and (iv) goalposts signal expected outcomes.

Scores are then computed as follows:

1. Positive indicators, i.e. indicators for which higher values indicate better outcomes and higher scores:

$$score = \frac{value - lower\ bound}{upper\ bound - lower\ bound} * 100$$

2. Negative indicators, i.e. indicators for which higher values indicate worse outcomes and lower scores:

$$score = \frac{upper\ bound - value}{upper\ bound - lower\ bound} * 100$$

There are two exceptions to this rule: indicator 4.1.1 - Voice and accountability index and indicator 4.1.2 - Rule of law index. These are World Bank worldwide governance indicators (WGI) computed as standardised scores. The corresponding score in the 0-100 range is computed as the one-tailed probability from the standardised normal distribution corresponding to the score (Excel NORMSDIST function) multiplied by 100. Z-scores of 0, -1 and 1 (mean; minus one standard deviation; and plus one standard deviation) score 50, 15.87 and 84.13, respectively.

1 https://ec.europa.eu/eurostat/databrowser/view/t2020_33/default/table?lang=en

## 5. AGGREGATION

Elementary indicators are aggregated into sub-pillars, pillars, and the index in three steps, by means of weighted arithmetic averages.

### 5.1 WEIGHTS

Indicator, sub-pillar and pillar weights were initially set based on some prior expert opinion on the required balance between indicators within the sub-pillar. These weights were then adjusted at the pre-audit stage, but only when necessary to increase the robustness of scores and rankings.

Weights have a theoretical meaning as so-called importance coefficients, and a statistical meaning as so-called scaling coefficients (Paruolo et al. 2013). For instance, two indicators each capturing marginal but important differences, when strongly correlated, need to be weighted down to increase the overall statistical balance of the sub-pillar. It is both expected and desirable for the overall robustness of the index that indicators and pillars be mostly positively – but not strongly – correlated.

### 5.2 AGGREGATION RULES

There are 16 sub-pillars. Aggregation of indicators into sub-pillars follows the following rules:

- two sub-pillar scores are computed with specific formulas specified under sources and definitions: 1.1 and 2.3;
- seven sub-pillar scores are computed from a single indicator following the normalisation formulas already specified: 1.2, 2.1, 3.1, 3.3, 3.4, 4.2 and 4.4;
- the remaining seven sub-pillar scores are computed as weighted arithmetic averages of indicator scores: 1.3, 1.4, 2.2, 2.4, 3.2, 4.1, and 4.3.

There are four pillars in total; each composed of four sub-pillars. Pillar scores are computed as weighted arithmetic averages of sub-pillar scores.

The index score is computed as the weighted arithmetic average of pillar scores.

## 6. STATISTICAL PRE-AUDIT

A first version of the index was submitted for a statistical audit by the Joint Research Centre (JRC) in November 2019. The JRC has experience in assessing composite indicators, *and has co-authored with the OECD the Handbook on Constructing Composite Indicators: Methodology and User Guide*, whose methodology has been used for the present analysis (OECD/EC JRC, 2008).

The second (current) version was submitted to the statistical auditing tool developed by the JRC (Becker et al. 2019) in May 2020. This tool was adapted to consider each country-year set of values (such as France - 2013) as a single separate unit, so that the analysis was based on a total of 740 units, including the Faroe Islands and the European Union (EU).

The auditing tool of the JRC is designed to help index designers assess: (i) the conceptual and statistical coherence of the index; (ii) the impact of modelling assumptions on the robustness of scores and rankings; and (iii) challenges related to the comparability and availability of data.

The TPI results suggest that the conceptual framework is statistically coherent, with a relatively balanced structure. In most cases, country rankings are robust to changes in methodological assumptions.

### 6.1 CONCEPTUAL AND STATISTICAL COHERENCE

The adoption of modelling choices (Table IV.2) followed an iterative process of fine-tuning aimed at constructing a balanced index. The main refinements were on goalposts and indicator weights. The iterative process involved the following four steps.

Step 1: Conceptual consistency (see Appendix I - Conceptual framework). Indicators were chosen for their relevance and availability, and were treated so that international comparisons would be valid.

Step 2: Data checks. The most recent data were used with a cut-off at 2010 (with few exceptions). Countries with fewer than five missing values were included. Data values outside the 2.0 interquartile range were checked for errors. Potential outliers were detected for indicators with

## Table IV.2: Transitions Performance Index 2020 modelling choices

| INDICATORS | | DATA | | | | NORMALIZATION BOUNDS | | | INDEX |
|---|---|---|---|---|---|---|---|---|---|
| CODE | NAME | TYPE | EFFECT | MINIMA | MAXIMA | CRITERIA | LOWER | UPPER | WEIGHT |
| **TPI** | **TRANSITIONS PERFORMANCE INDEX** | | | | | | | | |
| **1.** | **Economic transition** | | | | | | | | **0.20** |
| 1.1 | EDUCATION: Government expenditure in education per student (% of GDP per capita) | Hard | Positive | 4.9 | 26.2 | Goalpost range | 0.0 | 25.0 | 0.30 |
| 1.2 | WEALTH: GDP per capita, current dollars (PPP$) | Hard | Positive | 2 604.7 | 108 950.7 | Goalpost range | 0.0 | 75 000.0 | 0.20 |
| 1.3 | LABOUR PRODUCTIVITY & R&D INTENSITY | | Positive | 4.5 | 71.7 | Composite | | | 0.20 |
| 1.3.1 | Output per worker (2011 constant GDP PPP$) | Hard | Positive | 6 275.3 | 206 020.7 | Goalpost range | 0.0 | 150 000.0 | 0.50 |
| 1.3.2 | Gross expenditure on R&D (% of GDP) | Hard | Positive | 0.1 | 4.6 | Goalpost range | 0.0 | 5.0 | 0.50 |
| 1.4 | INDUSTRIAL BASE | | Positive | 13.8 | 95.7 | Composite | | | 0.30 |
| 1.4.1 | Gross value added of manufacturing (% of GDP) | Hard | Positive | 3.7 | 40.1 | Goalpost range | 0.0 | 30.0 | 0.60 |
| 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | Hard | Positive | 0.0 | 15.5 | Goalpost range | 0.0 | 7.4 | 0.40 |
| **2.** | **Social transition** | | | | | | | | **0.20** |
| 2.1 | HEALTH: Healthy life expectancy at birth (years) | Hard | Positive | 46.2 | 74.7 | Goalpost range | 45.0 | 75.0 | 0.25 |
| 2.2 | WORK AND INCLUSION | | Positive | 6.6 | 91.6 | Composite | | | 0.20 |
| 2.2.1 | Employment rate of the population aged 20-64 (%) | Hard | Positive | 30.9 | 101.9 | Goalpost range | 40.0 | 90.0 | 0.40 |
| 2.2.2 | Employment-to-population ratio gender gap 25+ (%) | Hard | Negative | 5.2 | 69.7 | Percentage | 0.0 | 70.0 | 0.40 |
| 2.2.3 | Early childhood care and education (%) | Hard | Positive | 8.7 | 78.6 | Percentage | 20.0 | 80.0 | 0.20 |
| 2.3 | FREE OR NON-REMUNERATED TIME: Free or non-remunerated time (%) | Hard | Positive | 28.4 | 67.9 | Goalpost range | 15.0 | 70.0 | 0.20 |
| 2.4 | EQUALITY | | Positive | 4.2 | 93.3 | Composite | | | 0.35 |
| 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | Index | Negative | 24.0 | 63.4 | Goalpost range | 20.0 | 65.0 | 0.75 |
| 2.4.2 | Income share held by the poorest quintile (%) | Hard | Positive | 1.7 | 10.5 | Goalpost range | 2.0 | 10.0 | 0.25 |
| **3.** | **Environmental transition** | | | | | | | | **0.35** |
| 3.1 | EMISSIONS REDUCTION: Gross greenhouse gas emissions (tonnes per capita) | Hard | Negative | 1.0 | 26.5 | Goalpost range | 0.0 | 24.0 | 0.25 |
| 3.2 | BIODIVERSITY | | Positive | 17.5 | 98.6 | Composite | | | 0.25 |
| 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | Hard | Positive | 2.4 | 99.3 | Percentage | 0.0 | 100.0 | 0.40 |
| 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | Hard | Positive | 3.2 | 100.0 | Percentage | 0.0 | 100.0 | 0.40 |
| 3.2.3 | Pesticide use per area of cropland (kg/ha) | Hard | Negative | 0.0 | 23.5 | Goalpost range | 0.0 | 14.0 | 0.20 |
| 3.3 | RESOURCE PRODUCTIVITY: Resource productivity (PPP$ per kg) | Hard | Positive | 0.4 | 6.2 | Goalpost range | 0.0 | 6.0 | 0.25 |
| 3.4 | ENERGY PRODUCTIVITY: Energy productivity (PPP$ per koe) | Hard | Positive | 2.5 | 30.8 | Goalpost range | 0.0 | 20.0 | 0.25 |
| **4.** | **Governance transition** | | | | | | | | **0.25** |
| 4.1 | FUNDAMENTAL RIGHTS | | Positive | 10.1 | 96.8 | Index bounds | | | 0.30 |
| 4.1.1 | Voice and accountability index (z-score) | Index | Positive | (1.9) | 1.7 | z-score | (1.9) | 1.7 | 0.50 |
| 4.1.2 | Rule of law Index (z-score) | Index | Positive | (1.2) | 2.1 | z-score | (1.2) | 2.1 | 0.50 |
| 4.2 | SECURITY: Homicide rate (per 100,000 inhabitants) | Hard | Negative | - | 36.4 | Goalpost range | 0.0 | 36.0 | 0.30 |
| 4.3 | TRANSPARENCY | | Positive | 19.1 | 87.1 | Composite | | | 0.30 |
| 4.3.1 | Corruption perceptions index (0-100) | Index | Positive | 25.0 | 92.0 | Index bounds | 0.0 | 100.0 | 0.40 |
| 4.3.2 | Basel anti-money laundering index (0-10) | Index | Negative | 1.5 | 8.6 | Index bounds | 0.0 | 10.0 | 0.60 |
| 4.4 | SOUND PUBLIC FINANCES: Government gross debt (% of GDP) | Hard | Negative | 1.6 | 237.7 | Goalpost range | 25.0 | 180.0 | 0.10 |

Source: European Commission, Transitions Performance Index 2020.

absolute skewness greater than 2 and kurtosis greater than 3.5. Indicators 1.4.2 and 2.4.1 were log-transformed, whereas other potential outliers were treated through the goalposts.

Step 3: Statistical coherence. There were no cases of strong collinearity (i.e. Pearson correlation coefficients greater than 0.92) or negative correlation within sub-pillars. Pearson correlations of sub-pillar indicators are all above 0.30 with the exceptions of 1.4.1; 1.4.2; 3.2.3; 3.2.1; and 3.2.2. The indicator structure was maintained on the theoretical complementary of indicators, but this could be revised.

In terms of overall balance, the statistical analysis suggested the following.

- Pillar 1 - Economic transition: Starting from equal weights, Pearson correlations of sub-pillar scores with the pillar scores ranged between 0.67 and 0.93. To rebalance contributions to the pillar, 1.1 - Education and 1.4 - Industrial base were weighted up to 0.3, with weights of 0.2 for 1.2 - Wealth and 1.3 - Labour productivity and R&D intensity.

  The example of sub-pillar 1.2 - Wealth, expressed by the single indicator of GDP per capita in PPP$ can be used to illustrate the concept of weights as 'scaling' coefficients, as opposed to weights as 'importance' coefficients. This is an indicator highly correlated with most indicators, implying that wealth is an important determinant of transition performance in all domains. The wealth dimension is therefore already captured indirectly by most other indicators included in the index. It could therefore be potentially 'overrepresented' with equal weights, compared to other indicators that provide useful marginal information, and could therefore be weighted down.

- In Pillar 2 - Social transition, sub-pillars 2.1 - Health and 2.4 - Equality were weighted up to 0.25 and 0.35 respectively; with 2.2 - Work and inclusion and 2.3 - Free or non-remunerated time assigned weights of 0.2.

- Pillar 3 - Environmental transition did not require rebalancing; equal weights of 0.25 were kept for the four sub-pillars.

- Pillar 4 - Governance transition has Pearson correlations with sub-pillars ranging from 0.24 to 0.81. Sub-pillar 4.4 - Sound public finances, with a Pearson correlation of 0.24, is problematic, as it has a single indicator, debt-to-GDP ratio, which is negatively correlated with most index indicators and with the other three pillars. The sub-pillar was kept on conceptual grounds, but with a lower weight of 0.1, while the other three pillars have weights of 0.3.

- On the balance of pillars with the index, correlations with the index score ranged between 0.76 and 0.93 with equal weights. The decision was made to increase the weights of Pillar 3 - Environmental transition to 0.35, and Pillar 4 - Governance transition to 0.25, with weights of 0.2 for Pillar 1 - Economic transition and Pillar 2 - Social transition.

Step 4: Qualitative review. Finally, index results – including the overall country classification and relative transition performance – were evaluated to verify that results are consistent with the existing literature in terms of research, theory, and empirical evidence.

## 6.2 IMPACT OF MODELLING ASSUMPTIONS AND ROBUSTNESS OF RESULTS

Scores and rankings depend on modelling choices: the pillar and sub-pillar structure; treatment of indicators; imputation of missing data; normalisation; goalpost bounds; weights; and aggregation methods. These choices are based on expert opinion, common practice, statistical analysis, or simplicity.

The aim of the robustness analysis is to assess to what extent these choices might affect rankings. This analysis is based on a multi-modelling approach to calculate scores and rankings under conditions of uncertainty (Saisana et al., 2005 and 2011).

The modelling variations in the JRC auditing tool result in 35 sets of rankings as set out below.

1. A total of 30 fully modelled alternatives as follows.
   - Five normalisation methods: (i) min-max normalisation (bound values set at the sample indicator minima and maxima over the ten-year period for all countries); (ii) data-max (i.e. same as min-max, but with the lower bound set at zero); (iii) goalposts (chosen method); (iv) median-min-max (min-max normalisation with transformation so that the median value scores 50 for all indicators); and (v) z-scores

(standardised scores, with an average of 0 and a standard deviation of 1).
- Three sets of weights: adjusted scores, equal weights (simple averages), and random weights (weights defined randomly within a pre-specified range).
- Two types of aggregation at the index level (i.e. aggregation of pillar scores into the index score): arithmetic (fully compensatory) and geometric (partially compensatory).

2. Two sets of data rankings: rankings based on median ranks (median of indicator ranks) and rankings based on average ranks (average of indicator ranks).

3. Two sets of Borda rankings: Borda ranks with adjusted weights and equal weights. The Borda method is an alternative way of aggregating indicators, based on ranks. It does not take the structure of the index into account: indicators are directly aggregated into an index. For N units in a sample, for each indicator the top-ranked country gets N-1 points, the second-ranked country gets N-2 points and so on. The last-ranked country gets 0 points; each unit then receives an overall score, which is the sum (simple or weighted) of indicator points. Units are ranked by their overall score.

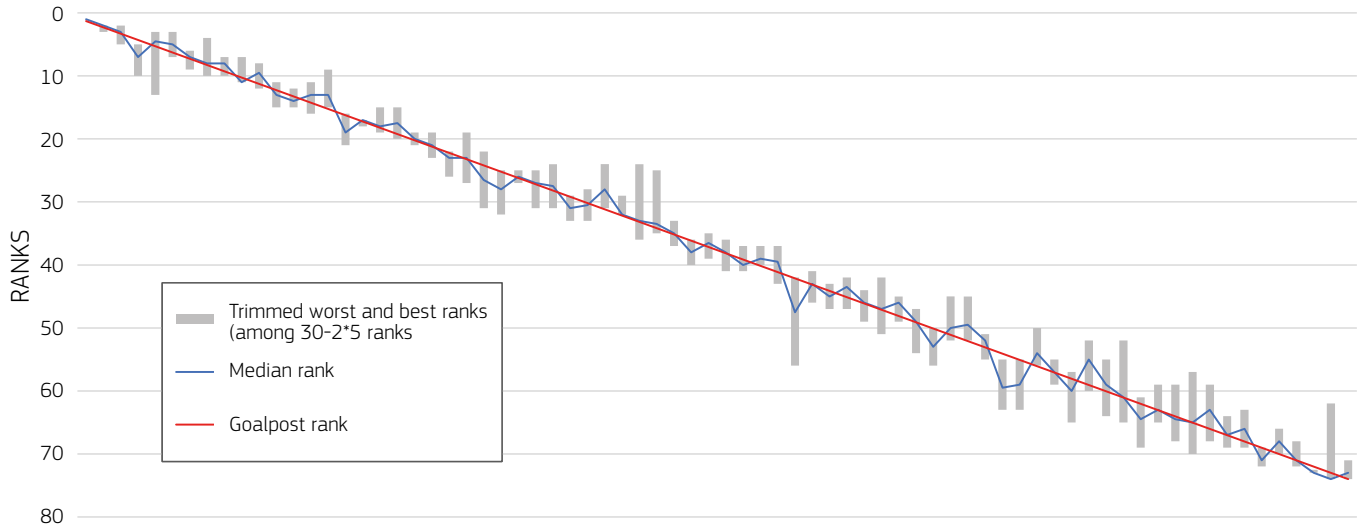
4. Rankings based on the Copeland rule, itself based on the outranking matrix at the pillar level. Pillar scores are compared pairwise, say France and Chile. France is assigned a score equivalent to the sum of the weights of the pillars where it has a higher value than the other unit (say three pillars, 0.75), the same for Chile (0.25, the sum of points is one by construction). Under 'dominance', i.e. when a country scores 1 pairwise (meaning it scores higher than the other country in the four pillars), there is no way that methodological choices can affect their relative standing in the ranking. The greater the dominance, the more robust country ranks are to methodological assumptions.

## 6.3 UNCERTAINTY ANALYSIS RESULTS

The 35 sets of rankings are synthesised in three indicators: median rank (for example 64), interval of ranks ([58, 66]) and trimmed interval of ranks (five lowest and highest ranks left out, [61, 66]). The main result of the robustness analysis is shown in Figure 1. Error bars represent, for each country, the range of ranks under all 35 models (trimmed from the five lowest and highest ranks).

TPI ranks are rather robust, as shown by the relatively tight ranges of ranks for each country/year. 23.8 % of country/year pairs shift 3 positions or less, and 62.0 % shift 6 positions or less.

**FIGURE IV.1: Robustness of goalpost ranks, 2019**




Source: European Commission, Transitions Performance Index 2020.

Ranks are particularly robust for EU countries, for which these percentages are 39.3% and 87.5%, respectively. This could be due to several possible reasons, such as: (i) better indicator coverage; (ii) the use of Eurostat series (with values based on similar methodologies that are therefore, presumably, more comparable to scores based on international series that could embed slight differences in classifications or data collection); (iii) the impact of exchange-rate fluctuations in the stability of some indicators, etc. The choice of country coverage was partly aimed at avoiding these concerns.

In addition, countries outside the EU have relatively more missing values (missing values are distorting for any composite indicator). In particular, the audit confirms that the Faroe Islands (the longest bar), cannot be kept in the index due to missing data.

### 6.4 SENSITIVITY ANALYSIS RESULTS

Complementary to the uncertainty analysis, sensitivity analysis is used to identify which of the modelling assumptions have the highest impact on certain country ranks (Saltelli et al., 2008). Although imputation of missing data is usually the main problem for any index, this analysis has been performed only marginally.

Results show that the main impact in rankings originates in the setting of goalposts, followed by changes in weights, and the aggregation method. Sensitivity analysis also provides insights into what is affecting scores the most for each country. To illustrate these impacts, the rankings from the 35 models explained in the previous section are complemented by the changes in ranks due to leaving out one indicator at a time ('leave-out' scores and ranks).

## 7. INDEPENDENT STATISTICAL AUDIT BY THE JRC

The TPI benefited from additional tests that the JRC was asked to perform. The JRC performed a full audit, including: (i) principal component analysis to assess to what extent the statistical approach supports the conceptual framework; (ii) Monte Carlo simulations with random weights; and (iii) imputation of missing data with nearest neighbours (see Appendix V – JRC Statistical Audit of the Transitions Performance Index).

In general, the audit confirms that the TPI is reliable, with a good, statistically coherent framework. The audit also acknowledges the important efforts of the developer team to obtain a balanced and transparent result. The audit report is published as part of the present report, the highlights of which are listed in the bullet points below.

- The data coverage is particularly good. Considering the international socioeconomic situation, issues in the imputation of 2020 data are expected for future editions.
- Outliers are implicitly treated with goalpost normalisation; generally, the TPI is statistically well balanced in its pillars, and most of the indicators provide meaningful information on the variation of the scores.
- Some issues were identified: poor or negative correlations of 1.4.1 - Gross value added of manufacturing, 3.1 - Gross GHG emissions, 3.2.3 - Pesticide use per area of cropland, and 4.4 - Government gross debt. The environmental pillar contributes less to the index than the other three pillars. The JRC recommends monitoring these indicators/pillars in future editions.
- The results of the uncertainty analysis reveal that the TPI is a robust summary measure. The simulated intervals are narrow enough for meaningful inferences to be drawn from the index, with only three countries having 90% confidence interval widths of more than 10 positions.
- The decision not to impute missing data, justified on grounds of transparency and replicability, is shown to have a relatively lower impact on rankings.

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# APPENDIX V

## JRC STATISTICAL AUDIT OF THE TRANSITIONS PERFORMANCE INDEX

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## ABSTRACT

The transitions performance index (TPI) is a multidimensional index which ranks 73 countries for their progress along four dimensions of sustainability: economic, social, environmental and governance. The European Commission's Competence Centre on Composite Indicators and Scoreboards (COIN) at the Joint Research Centre (JRC) in Ispra was invited by the developers of the index to audit the TPI. JRC-COIN aims to help ensure the transparency of the index methodology and the reliability of its results. This JRC-COIN audit focuses on data quality, the statistical soundness of the multi-level structure of the index, and the impact of key modelling assumptions on the results.

The analysis suggests that meaningful inferences can be drawn from the index. The TPI is reliable and the framework has good statistical coherence. TPI ranks are shown to be representative of a plurality of scenarios, and robust to changes in the aggregation and imputation methods and the pillar weights. Even though the TPI has many good statistical properties, JRC-COIN has made some suggestions for possible refinements.


## 1. INTRODUCTION

The transitions performance index (TPI) aims at measuring countries' transitions to sustainable development. It is a multidimensional index composed of 25 indicators organised into 16 different sub-pillars. Each of these sub-pillars are themselves aggregated into four pillars. Each of these pillars corresponds to a dimension of sustainability: the economic transition; the social transition; the environmental transition; and the governance transition.

This structure aims to respond to the policy priorities of the EU, with each pillar representing an independent dimension with a strong and clear meaning, so that it could be used in a stand-alone analysis.

As stated by the developers, this index aims to complement more comprehensive monitoring reports, such as Eurostat's yearly *Sustainable development in the European Union* reports.

The TPI framework is well constructed, and a lot of thought has clearly been put into it. However, conceptual and practical challenges are inevitable when trying to summarise with a single composite indicator the complexity of a multidimensional phenomenon. An analysis is needed to ensure and validate the statistical soundness of any composite index. The analysis performed in this audit – and discussed in this report – aims to help policymakers derive more accurate and meaningful conclusions form the Transitions Performance Index, and to potentially guide their choices on priority setting and policy formulation.

In general, statistical soundness should be regarded as a necessary but insufficient condition for a sound index. This is because the correlations underpinning most of the statistical analyses carried out in this report need not necessarily represent the real influence of the individual indicators on the phenomenon being measured. The development of any index must therefore be nurtured by a dynamic, iterative dialogue between the principles of statistical and conceptual soundness.

The JRC assessment of the TPI presented here focuses on two main issues: the statistical coherence of the structure, and the impact of key modelling assumptions on the TPI ranks. The statistical analysis is based on: (i) the adequacy of aggregating indicators into pillars, and pillars into the overall index; (ii) the multidimensional structure of the TPI; and (iii) the specific impact of each element used in the aggregation. Finally, the JRC analysis complements the reported country rankings for the TPI with estimated intervals, in order to better appreciate the robustness of these ranks to the modelling choices.

Sections 2 to 4 are based on a first set of data submitted to the JRC for a complete audit in August 2020. Index developers then made minor adjustments to a few indicators, consisting mainly of the imputation of missing data and data updates (refer to Section 5 for details). The sensitivity and robustness analysis was performed again in November 2020 for consistency with published data; thus, Section 5 is therefore based on these latest results.

## 2. CONCEPTUAL FRAMEWORK

The TPI is based on four pillars, each of which relates to one area found to be critical in sustainable development: an economic pillar; a social pillar; an environmental pillar and a governance pillar. Each of these pillars contains 4 sub-pillars, making 16 sub-pillars in total. These 16 sub-pillars are built using 25 indicators (**Table V.1**). The index is based on these 25 indicators and aggregated at each level using a weighted arithmetic average. Some of the indicators are already composite indicators; this may lead to some repetition of information and a lack of clarity in the framework. Nonetheless, the developers declared that every composite indicator included in the framework was selected to exclude or reduce this risk to the minimum. Moreover, all the composite indicators are well flagged (see the index in **Table V.1**) and are all used in the same pillar (governance).

**TABLE V.1: Conceptual framework of the TPI**

| Pillar | Sub-Pillar | Ind. Id | Indicator name | Ind. number | Direction |
|---|---|---|---|---|---|
| ECONOMIC | EDUCATION | 1.1 | Gov. expenditure on education per student (% of GDP per capita) | ind.01 | 1 |
| | WEALTH | 1.2 | GDP per capita, current dollars (PPP$) | ind.02 | 1 |
| | LABOUR PRODUCTIVITY & R&D INTENSITY | 1.3.1 | Output per worker (2011 constant GDP PPP$) | ind.03 | 1 |
| | | 1.3.2 | Gross expenditure on R&D (% of GDP) | ind.04 | 1 |
| | INDUSTRIAL BASE | 1.4.1 | Gross value added, manufacturing (% of GDP) | ind.05 | 1 |
| | | 1.4.2 | Patent families filed in two offices (per billion PPP$ GDP) | ind.06 | 1 |
| SOCIAL | HEALTH | 2.1 | Healthy life expectancy at birth (years) | ind.07 | 1 |
| | WORK AND INCLUSION | 2.2.1 | Employment rate of population 20-64 (%) | ind.08 | 1 |
| | | 2.2.2 | Employment-to-population ratio, gender gap 25+ (%) | ind.09 | -1 |
| | | 2.2.3 | Adjusted net enrolment rate, 1 year before the official primary entry age, both sexes (%) | ind.10 | 1 |
| | FREE TIME | 2.3 | Free time of the active population (AR * (1 - T/H)) | ind.11 | 1 |
| | EQUALITY | 2.4.1 | Gini coefficient disposable income post taxes and transfers (0-100) | ind.12 | -1 |
| | | 2.4.2 | Income share held by the poorest quintile (%) | ind.13 | 1 |
| ENVIRONMENTAL | EMISSIONS REDUCTION | 3.1 | Gross GHG emissions (tonnes per capita) | ind.14 | -1 |
| | BIODIVERSITY | 3.2.1 | Terrestrial key biodiversity areas (KBAs) protected (%) | ind.15 | 1 |
| | | 3.2.2 | Freshwater key biodiversity areas (KBAs) protected (%) | ind.16 | 1 |
| | | 3.2.3 | Pesticide use per area of cropland (kg/ha) | ind.17 | -1 |
| | RESOURCE PRODUCTIVITY | 3.3 | Resource productivity (PPP$ per kg) | ind.18 | 1 |
| | ENERGY PRODUCTIVITY | 3.4 | Energy productivity (PPP$ per koe) | ind.19 | 1 |
| GOVERNANCE | FUNDAMENTAL RIGHTS | 4.1.1 | Voice and accountability index (index) | ind.20 | 1 |
| | | 4.1.2 | Rule of law index (index) | ind.21 | 1 |
| | SECURITY | 4.2 | Homicide rate (per 100 000 inhabitants) | ind.22 | -1 |
| | TRANSPARENCY | 4.3.1 | Corruption perceptions index (0-100) | ind.23 | 1 |
| | | 4.3.2 | Basel anti-money laundering index (0-10) | ind.24 | -1 |
| | SOUND PUBLIC FINANCES | 4.4 | Government gross debt (% of GDP) | ind.25 | -1 |

Source: Developers of the index and the European Commission's JRC, 2020.

# 3. DATA QUALITY AND AVAILABILITY

The data used to construct the TPI are based on a time series from 2010 to 2019. Whenever data were missing, the developer followed these three rules (the order reflects the priority among the rules):

1. interpolation between time points – whenever data are available for a few years only, the intermediate years are linearly interpolated;

2. last observation carried forward (LOCF) and first observation carried backwards (FOCB);

3. data points obtained from national institutions or other sources.

The data used in this audit are the result of this first step of data imputation performed by the developers. They are based on time series and refer only to the most recent year (2019). Many values used for 2019 are based on LOCF of 2018 or older data. In this situation, it is common practice to use the last-available year accepting the unavoidable delay in the preparation of international data.

For remaining missing values, the developers opted for an implicit imputation at the aggregate level. In practice, the choice was not to impute the values. Because of this, the score of the aggregate containing the missing value is based on the other elements which are observed. This approach is usually selected to improve transparency and avoid any methodological black box. In this case, the developers asked JRC-COIN to check the effect of this choice on the results. Section 5 investigates the impact of this choice and other modelling assumptions.

In the final dataset, only the countries with a maximum of 5 missing values (out of 25) are included. This rule determined the exclusion of the Faroe Islands from the TPI. The data coverage for the remaining 73 countries is generally good. There are 19 indicators that contain 2 or fewer missing values, and only 3 indicators show more than 5 missing data points: indicators 1.1, 2.2.3, and 3.2.3 (**Table V.2**). The governance pillar has the best coverage among the pillars; it has only one missing value.

The audit also investigated the presence of outliers that could potentially bias the effect of the indicators on the aggregates. The JRC recommends an approach for outlier identification based on skewness and kurtosis values[1], i.e. when the variables simultaneously have absolute skewness higher than 2.0 and kurtosis higher than 3.5. The developers followed the same approach in the construction of the TPI, identifying indicators 1.4.2 and 4.2.1 (4.2 in this document). These two indicators are log-transformed, which is a common practice in this kind of situation. Focusing on the data from 2019, indicator 4.4 emerges as an indicator that may potentially have been distorted by outliers. Fortunately, as the normalisation method based on goalposts is effective in reducing outliers, the distributional problems on 4.4 are not recorded for the normalised indicator. Table V.2 offers summary statistics for the raw indicators included in the TPI.

## 3.1 NORMALISATION

The indicators are rescaled to a 0-100 scale, with 0 as the lowest score achieved by countries, and 100 as the highest. This is a common – and usually desired – practice in the construction of composite indicators. The developers set minimum and maximum values for each indicator, called goalposts. In this approach, if a value is lower than the lower goalpost it has the value 0 assigned, while if the value is higher than the higher goalpost the assigned value is 100. Moreover, all the intermediate values are computed with the following two formulas:

For a positive indicator:

$$score = \frac{value - lower\ bound}{upper\ bound - lower\ bound} * 100$$

For a negative indicator:

$$score = \frac{upper\ bound - value}{upper\ bound - lower\ bound} * 100$$

An indicator is intended to be positive when higher values indicate better performance (it is negative if higher values indicate worse performance). The direction of all the indicators is represented in Table V.1 Indicators 4.1.1 and 4.1.2 are World Bank worldwide governance indicators, and are normalised following a slightly different procedure described in the technical report of the TPI.

1 Groeneveld, R. A. and Meeden, G., 'Measuring Skewness and Kurtosis', *Journal of the Royal Statistical Society*, Series D, vol. 33, pp. 391–399, 1984.

**TABLE V.2: Summary statistics of the indicators included in the TPI**

| | Indicator | n | Missing (%) | Mean | Min | Max | Range | skew | kurtosis |
|---|---|---|---|---|---|---|---|---|---|
| ECONOMIC | 1.1 | 61 | 16.4 | 16.37 | 7.61 | 24.13 | 16.52 | -0.24 | -0.87 |
| | 1.2 | 73 | 0 | 35 024.15 | 3 874.56 | 108 950.71 | 105 076.15 | 0.99 | 1.11 |
| | 1.3.1 | 73 | 0 | 65 843.41 | 7 187.56 | 199 367.48 | 192 179.92 | 0.95 | 1.47 |
| | 1.3.2 | 73 | 0 | 1.33 | 0.13 | 4.55 | 4.42 | 1.18 | 0.9 |
| | 1.4.1 | 73 | 0 | 14.09 | 3.98 | 30.8 | 26.82 | 0.82 | 0.5 |
| | 1.4.2 | 72 | 1.4 | 1.42 | 0 | 11.14 | 11.14 | 2.34 | 5.81 |
| SOCIAL | 2.1 | 73 | 0 | 66.51 | 48.69 | 74.67 | 25.99 | -0.89 | 1.1 |
| | 2.2.1 | 72 | 1.4 | 67.21 | 30.93 | 91.27 | 60.34 | -0.78 | -0.29 |
| | 2.2.2 | 73 | 0 | 20.64 | 5.2 | 64.91 | 59.7 | 1.72 | 2.11 |
| | 2.2.3 | 59 | 19.2 | 89.39 | 37.08 | 100 | 62.91 | -1.97 | 2.71 |
| | 2.3 | 69 | 5.5 | 50.78 | 23.01 | 66.39 | 43.39 | -0.88 | 0.25 |
| | 2.4.1 | 71 | 2.7 | 35 | 24.2 | 63 | 38.8 | 1.28 | 2.97 |
| | 2.4.2 | 70 | 4.1 | 7.1 | 2.4 | 10.2 | 7.8 | -0.28 | 0.04 |
| ENVIRONMENTAL | 3.1 | 71 | 2.7 | 8.63 | 1.03 | 22.54 | 21.51 | 0.89 | 0.35 |
| | 3.2.1 | 73 | 0 | 54.7 | 2.47 | 99.28 | 96.8 | 0.07 | -1.39 |
| | 3.2.2 | 68 | 6.8 | 56.11 | 4.39 | 99.96 | 95.57 | 0.06 | -1.41 |
| | 3.2.3 | 64 | 12.3 | 3.33 | 0.02 | 13.07 | 13.05 | 1.42 | 1.38 |
| | 3.3 | 73 | 0 | 2.4 | 0.67 | 6.22 | 5.55 | 1.11 | 0.8 |
| | 3.4 | 73 | 0 | 11.52 | 3.05 | 28.57 | 25.52 | 1.31 | 2.98 |
| GOVERNANCE | 4.1.1 | 73 | 0 | 64.87 | 5.01 | 95.84 | 90.83 | -0.75 | -0.67 |
| | 4.1.2 | 73 | 0 | 66.22 | 18.92 | 97.96 | 79.05 | -0.24 | -1.47 |
| | 4.2 | 72 | 1.4 | 3.46 | 0.2 | 35.9 | 35.7 | 3.55 | 12.26 |
| | 4.3.1 | 73 | 0 | 54.95 | 27 | 88 | 61 | 0.25 | -1.32 |
| | 4.3.2 | 73 | 0 | 4.93 | 2.68 | 8.6 | 5.92 | 0.65 | 0.56 |
| | 4.4 | 73 | 0 | 60.72 | 8.4 | 237.69 | 229.29 | 2.06 | 6.42 |

Source: European Commission, JRC, 2020.
*Note: The cell with the percentage of missing values exceeding 10% are shaded in light red fill. The values of skewness and kurtosis exceeding the threshold are written in red.*

## 4. STATISTICAL COHERENCE

The assessment of statistical coherence consists of a multi-level analysis of the correlations of variables, and a comparison of TPI rankings with their constituent pillars.

### 4.1 CORRELATION ANALYSIS

The statistical coherence of an index should be considered a necessary but insufficient condition for a sound index. Given that the statistical analysis is mostly based on correlations, the correspondence of every index to a real-world phenomenon needs to be critically addressed by developers and experts, because 'correlations do not necessarily represent the real influence of the individual indicators on the phenomenon being measured' (OECD & JRC, 2008)[2]. This influence relies on the interplay between both conceptual and statistical soundness. The degree of coherence between the conceptual framework and the statistical structure of the data is an important factor for the reliability of an index.

The correlation analysis is used to assess the extent to which the observed data support the conceptual framework. Ideally, there should be positive significant correlations within every level of the index. This effectively ensures that the overall index scores adequately reflect the underlying indicator values.

2 OECD/EC JRC (Organisation for Economic Co-operation and Development/European Commission, Joint Research Centre). 2008. Handbook on Constructing Composite Indicators: Methodology and User Guide. Paris: OECD.

Redundancy, which could be identified by very high correlations (>0.92), should be avoided in the framework. This is because if two indicators are collinear, this may amount to double counting (and therefore over-weighting) of the same phenomenon.

### *Correlation analysis between indicators and aggregates*

**Table V.3** shows the correlation coefficients between indicators and sub-pillars belonging to the same pillar. Most correlations are significant and positive (>0.30). However, a few problematic cases are identified in the paragraphs below.

Indicators 1.4.1, 3.1, 3.2.3 and 4.4 show shallow, when not negative, correlations with the other indicators in their pillars. This may suggest that these indicators do not entirely fit with the others, and this may cause a conflict in results and reduce the significance of the aggregate to which they belong. In particular, indicators/sub-pillars 3.1 and 4.4 are also proven to be negatively correlated with the overall TPI (see **Table V.4**). A further suggestion would be to keep monitoring these specific indicators and their position in the framework for future editions of the index in order to check their behaviour and modify them if appropriate. Indicator 3.2.3 is the only low-correlated indicator in a group of three. As a result, indicators 3.2.1 and 3.2.2 dominate the sub-pillar (correlation 0.25 vs 0.93).

Excluding those mentioned above, the indicators that belong to an aggregated sub-pillar show positive and sufficient levels of correlation.

**TABLE V.3: Pearson correlation coefficients between variables and their indicator, pillar and overall index**

| **Pillar 1** | **1.1** | **1.2** | 1.3.1 | 1.3.2 | **1.3** | 1.4.1 | 1.4.2 | **1.4** |
|---|---|---|---|---|---|---|---|---|
| 1.1 | 1 | 0.42 | 0.36 | 0.4 | 0.43 | -0.12 | 0.56 | 0.29 |
| 1.2 | 0.42 | 1 | 0.96 | 0.63 | 0.91 | -0.02 | 0.77 | 0.51 |
| 1.3.1 | 0.36 | 0.96 | 1 | 0.57 | 0.89 | 0 | 0.71 | 0.48 |
| 1.3.2 | 0.4 | 0.63 | 0.57 | 1 | 0.88 | 0.22 | 0.8 | 0.7 |
| 1.4.1 | -0.12 | -0.02 | 0 | 0.22 | 0.12 | 1 | 0.02 | 0.73 |
| 1.4.2 | 0.56 | 0.77 | 0.71 | 0.8 | 0.85 | 0.02 | 1 | 0.71 |

| **Pillar 2** | **2.1** | 2.2.1 | 2.2.2 | 2.2.3 | **2.2** | **2.3** | 2.4.1 | 2.4.2 | **2.4** |
|---|---|---|---|---|---|---|---|---|---|
| 2.1 | 1 | 0.47 | 0.27 | 0.38 | 0.47 | 0.55 | 0.47 | 0.32 | 0.43 |
| 2.2.1 | 0.47 | 1 | 0.5 | 0.64 | 0.93 | 0.9 | 0.32 | 0.22 | 0.29 |
| 2.2.2 | 0.27 | 0.5 | 1 | 0.67 | 0.75 | 0.57 | 0.21 | 0.11 | 0.18 |
| 2.2.3 | 0.38 | 0.64 | 0.67 | 1 | 0.82 | 0.46 | 0.11 | 0.06 | 0.10 |
| 2.3 | 0.55 | 0.9 | 0.57 | 0.46 | 0.87 | 1 | 0.29 | 0.18 | 0.26 |
| 2.4.1 | 0.47 | 0.32 | 0.21 | 0.11 | 0.29 | 0.29 | 1 | 0.91 | 0.99 |
| 2.4.2 | 0.32 | 0.22 | 0.11 | 0.06 | 0.17 | 0.18 | 0.91 | 1 | 0.96 |

| **Pillar 3** | **3.1** | 3.2.1 | 3.2.2 | 3.2.3 | **3.2** | **3.3** | **3.4** |
|---|---|---|---|---|---|---|---|
| 3.1 | 1 | -0.1 | -0.01 | 0.21 | -0.02 | -0.25 | 0.2 |
| 3.2.1 | -0.1 | 1 | 0.82 | 0.03 | 0.93 | 0.31 | 0.32 |
| 3.2.2 | -0.01 | 0.82 | 1 | 0.03 | 0.93 | 0.31 | 0.32 |
| 3.2.3 | 0.21 | 0.03 | 0.03 | 1 | 0.25 | -0.39 | -0.16 |
| 3.3 | -0.25 | 0.31 | 0.31 | -0.39 | 0.23 | 1 | 0.53 |
| 3.4 | 0.2 | 0.32 | 0.32 | -0.16 | 0.3 | 0.53 | 1 |

| **Pillar 4** | 4.1.1 | 4.1.2 | **4.1** | **4.2** | 4.3.1 | 4.3.2 | **4.3** | **4.4** |
|---|---|---|---|---|---|---|---|---|
| 4.1.1 | 1 | 0.77 | 0.94 | 0.24 | 0.73 | 0.69 | 0.79 | -0.25 |
| 4.1.2 | 0.77 | 1 | 0.94 | 0.54 | 0.94 | 0.65 | 0.9 | -0.16 |
| 4.2 | 0.24 | 0.54 | 0.41 | 1 | 0.52 | 0.27 | 0.45 | -0.11 |
| 4.3.1 | 0.73 | 0.94 | 0.89 | 0.52 | 1 | 0.62 | 0.91 | -0.11 |
| 4.3.2 | 0.69 | 0.65 | 0.71 | 0.27 | 0.62 | 1 | 0.88 | -0.06 |
| 4.4 | -0.25 | -0.16 | -0.22 | -0.11 | -0.11 | -0.06 | -0.1 | 1 |

Source: European Commission, JRC, 2020.
*Note: Numbers represent the Pearson correlation coefficients. Good correlations (i.e. Pearson correlation coefficients greater than 0.30 and lower than 0.92) are written in black. Correlations with low values (here < 0.30) are written in grey. Correlations at risk of redundancy (here >0.91) are written in green. Correlations with meaningful negative value (here -0.30) are written in red.*

***Correlation analysis between aggregates and index***

The values in **Table V.4** represent the correlation between the aggregates (sub-pillars or higher). This level of aggregation is the most important as it represents the consistency of the general concepts.

All the sub-pillars appear consistent and well allocated within their pillar, with very satisfying correlation levels. The only exceptions are 3.1 and 4.4, which show low or no correlation with their pillar. The same two sub-pillars are also not positively correlated with the overall index. This result suggests that these two sub-pillars are pointing in different directions to the rest of the framework.

The direct correlation among pillars and the index (**Table V.5**) describes the balance at the top level of aggregation. Pillars are positively correlated, except for pillar 3, which is the only pillar that has a low correlation with all the others. The weak correlation is also evident at index level where, despite having a larger weight, the environmental pillar has a more moderate correlation to the index than the other pillars.

**TABLE V.4: Pearson correlation coefficients between sub-pillars, pillars and the index**

| Sub-pillar | Pillar 1 | Pillar 2 | Pillar 3 | Pillar 4 | TPI |
|---|---|---|---|---|---|
| 1.1 | 0.68 | 0.62 | 0.11 | 0.54 | 0.56 |
| 1.2 | 0.87 | 0.7 | 0.22 | 0.77 | 0.77 |
| 1.3 | 0.91 | 0.67 | 0.2 | 0.73 | 0.75 |
| 1.4 | 0.77 | 0.49 | 0.21 | 0.48 | 0.59 |
| 2.1 | 0.72 | 0.78 | 0.25 | 0.74 | 0.75 |
| 2.2 | 0.64 | 0.78 | 0.17 | 0.61 | 0.65 |
| 2.3 | 0.65 | 0.8 | 0.27 | 0.68 | 0.72 |
| 2.4 | 0.46 | 0.71 | 0.17 | 0.57 | 0.56 |
| 3.1 | -0.59 | -0.47 | 0.37 | -0.51 | -0.31 |
| 3.2 | 0.3 | 0.45 | 0.65 | 0.41 | 0.6 |
| 3.3 | 0.56 | 0.46 | 0.62 | 0.48 | 0.68 |
| 3.4 | 0.2 | 0.21 | 0.81 | 0.27 | 0.53 |
| 4.1 | 0.79 | 0.75 | 0.33 | 0.89 | 0.84 |
| 4.2 | 0.45 | 0.65 | 0.2 | 0.74 | 0.61 |
| 4.3 | 0.76 | 0.73 | 0.25 | 0.9 | 0.8 |
| 4.4 | -0.13 | -0.1 | -0.26 | -0.05 | -0.18 |

Source: European Commission, JRC, 2020.
*Note: Numbers represent the Pearson correlation coefficients. Good correlations (i.e. Pearson correlation coefficients greater than 0.30 and lower than 0.92) are written in black. Correlations with low values (here < 0.30) are written in grey. Correlations at risk of redundancy (here >0.91) are written in green. Correlations with meaningful negative value (here -0.30) are written in red.*

**TABLE V.5: Pearson correlation coefficients between the pillars and the index**

| | Pillar 1 | Pillar 2 | Pillar 3 | Pillar 4 | TPI |
|---|---|---|---|---|---|
| Pillar 1 | 1 | 0.78 | 0.23 | 0.78 | 0.83 |
| Pillar 2 | 0.78 | 1 | 0.28 | 0.84 | 0.86 |
| Pillar 3 | 0.23 | 0.28 | 1 | 0.28 | 0.63 |
| Pillar 4 | 0.78 | 0.84 | 0.28 | 1 | 0.87 |

Source: European Commission, JRC, 2020.
*Note: Numbers represent the Pearson correlation coefficients. Good correlations (i.e. Pearson correlation coefficients greater than 0.30 and lower than 0.92) are written in black. Correlations with low values (here < 0.30) are written in grey. Correlations at risk of redundancy (here >0.91) are written in green. Correlations with meaningful negative value (here -0.30) are written in red.*

## 4.2 PRINCIPAL COMPONENTS ANALYSIS

As a further step in the analysis of statistical coherence, principal components analysis (PCA), was used to confirm the presence of one single statistical dimension among the four TPI pillars. Technically, the expectation here is that there is only one principal component with an eigenvalue greater than 1, or explaining more than 70% of the variance. In practice, the achievement of these thresholds suggests the presence of a common, unidimensional phenomenon underlying the pillars.

In the case of the TPI, the first principal component (PC1 or Dim 1) is the only one with an eigenvalue higher than 1 (PC1 = 2.7, PC2 = 0.9) and explains about 68% of the total variation, while the second principal component explains an additional 22%. Thus the first two principal components explain nearly all variance in the data (90% of the total variance). Figure V.1 illustrates the projections of the TPI pillars on to the plane spanned by the first two principal components in a 'factor map'.

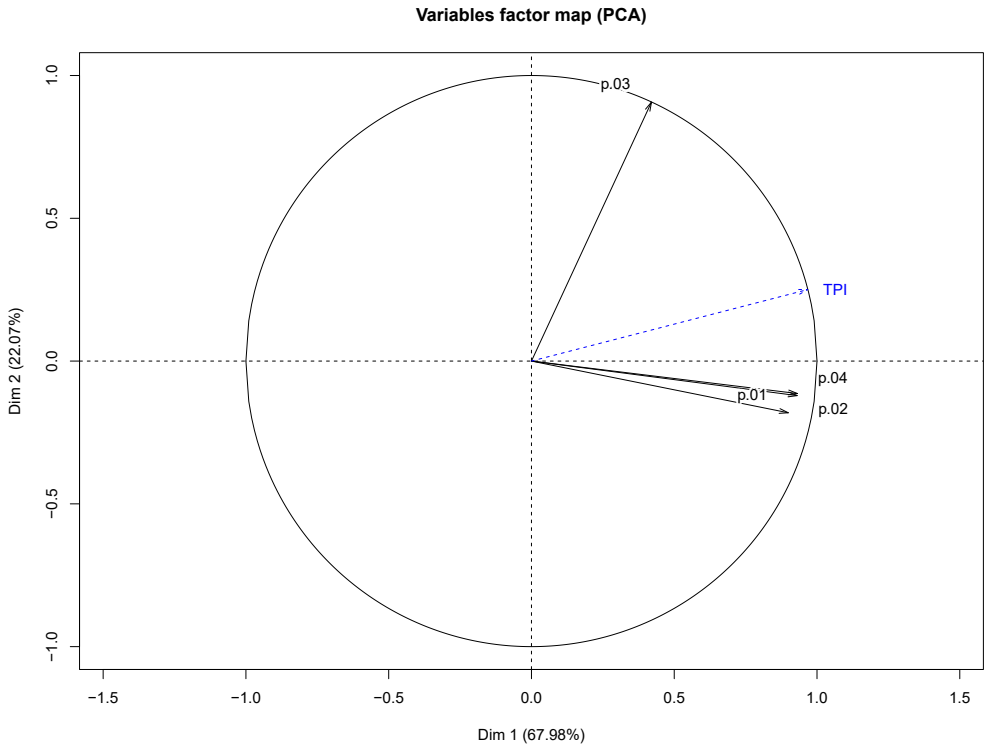
The correlation between each TPI dimension and the principal component is given by the projection of the TPI pillar vector onto the component axis.

The economic, social and governance pillars (p.1, p.02, and p.04) all correlate highly with the first principal component. The correlations are all equal to or above 0.90 except for the environmental pillar (correlation 0.43), which despite being reasonably well correlated with PC1 shows some unicity, pointing in a different direction than the other pillars.

The second principal component is much less influential than the first and only accounts for one fifth of the total variance. Despite being less influential, PC2 is useful to evaluate the differences between the environmental pillar and the other pillars. This difference is illustrated in **Figure V.1**, where pillars 1, 2 and 4 are not correlated with PC2, while pillar 3 is mainly correlated with – and explained by – that principal component.

Relying on the usual rule of thumb, the results of the PCA confirm a satisfying unidimensional structure to the TPI. Nevertheless, JRC-COIN suggests keeping the environmental pillar under strict monitoring since it is clearly describing something only partially related to the other pillars and the TPI, as often happens with the environmental aspects of socioeconomic composite indicators.

**FIGURE V.1: Factor map of the four pillars and comparison with the overall TPI**




Source: European Commission, JRC, 2020.

The PCA within pillars shows some possible limitations in the structure of the environmental and governance pillars. Practically, sub-pillar 9 (3.1 - GHG emissions) and sub-pillar 16 (4.4 - Government gross debt) are not aligned with the other sub-pillars and the principal component. These results are in line with those obtained in the correlation analysis.

## 4.3 ADDED VALUE OF THE TPI

Sometimes a high statistical association among the main components of an index can be due to the redundancy of information. This is not the case with the TPI. For 15% or more of the countries included in the index, the TPI ranking, and any of the four pillar rankings, differ by 15 positions or more (see **Table V.6**). This result suggests that the TPI ranking highlights aspects of countries' efforts that do not emerge by looking at the four pillars separately. In particular, pillar 3 is confirmed to be the least aligned of the components. Almost 40% of the countries show a difference in rank of at least 15 positions in respect to the TPI.

**TABLE V.6: Distribution of rank differences between pillars and TPI rankings**

| Shift respect to TPI | Pillar 1 | Pillar 2 | Pillar 3 | Pillar 4 |
|---|---|---|---|---|
| More than 30 positions | 0% | 1% | 14% | 1% |
| 15-29 positions | 23% | 15% | 23% | 14% |
| 5-14 positions | 44% | 51% | 35% | 48% |
| Fewer than 5 positions | 25% | 26% | 25% | 37% |
| 0 positions | 8% | 7% | 3% | 0% |

Source: European Commission, JRC, 2020.

## 4.4 IMPACT OF THE COMPONENTS OF THE TPI

The study of the impact of the components (underlying indicator or aggregates) on the index is conducted by observing alternative simulated rankings based on the omission of one component at a time. One would typically expect to find some variability in rankings in such simulations. Otherwise, the omitted component would be proven to be irrelevant, adding no significant valuable information to the index. **Table V.7** outlines the average shifts in the TPI country rankings when one element is omitted at a time.

Among the elementary indicators, 1.1, 2.2.3 and 3.2.3 have the most significant impacts on the rankings, with an average of the absolute rank shift of at least three positions. The omission of one of these indicators would cause a relevant change in the rankings of countries[3]. This level of impact is not achieved by any sub-pillar, except for 1.1, which is an indicator/sub-pillar. Their aggregation clearly diminishes the effects of 2.2.3, 3.2.2, and 3.2.3, such that excluding 2.2 and 3.2 would cause an average change of 0.9 and 2.6 positions respectively. The environmental pillar proves its specificity again by causing an average rank change of 7 positions and a maximum shift of 28[4]. This result classifies the environmental pillar unequivocally as impactful, but it may also represent the diversity of this pillar compared to the rest of the index.

No pillar has an impact measure lower than 2, while only a few sub-pillars and indicators show very low values of impact on ranks (minimum sub-pillar: 2.1, minimum indicators: 2.2.2 and 4.3.1).

3 Looking at the maximum rank shift observed when omitting an element, indicators 3.4. and 4.2 also show a significant impact on a country's rank.

4 Iceland and New Zealand would be the most affected by the exclusion of pillar 3, gaining 21 and 28 positions respectively.

**TABLE V.7: Average shift in the TPI country rankings when one element is omitted at a time**

| Pillar | Mean rank shift | Maximum rank shift | Mean score change |
|---|---|---|---|
| Economic | 3.2 | 13 | 2.8 |
| Social | 2.1 | 10 | 2.4 |
| Environmental | 7.0 | 28 | 4.5 |
| Governance | 3.6 | 14 | 2.5 |
| **Sub-pillar** | | | |
| 1.1 | 3.2 | 14 | 0.8 |
| 1.2 | 1.0 | 8 | 0.8 |
| 1.3 | 0.8 | 5 | 1.0 |
| 1.4 | 1.4 | 8 | 1.0 |
| 2.1 | 0.7 | 3 | 0.8 |
| 2.2 | 0.9 | 5 | 0.6 |
| 2.3 | 1.6 | 7 | 0.5 |
| 2.4 | 1.6 | 8 | 0.9 |
| 3.1 | 2.6 | 9 | 2.1 |
| 3.2 | 2.6 | 9 | 1.4 |
| 3.3 | 2.3 | 8 | 2.0 |
| 3.4 | 2.5 | 12 | 1.3 |
| 4.1 | 1.5 | 7 | 1.3 |
| 4.2 | 2.0 | 13 | 1.4 |
| 4.3 | 0.8 | 3 | 0.7 |
| 4.4 | 0.9 | 5 | 0.7 |

| Indicator | Mean rank shift | Maximum rank shift | Mean score change |
|---|---|---|---|
| 1.1 | 3.2 | 14 | 0.8 |
| 1.2 | 1.0 | 8 | 0.8 |
| 1.3.1 | 0.6 | 4 | 0.4 |
| 1.3.2 | 0.6 | 5 | 0.7 |
| 1.4.1 | 1.1 | 6 | 0.7 |
| 1.4.2 | 0.9 | 5 | 0.5 |
| 2.1 | 0.7 | 3 | 0.8 |
| 2.2.1 | 0.7 | 3 | 0.3 |
| 2.2.2 | 0.3 | 2 | 0.4 |
| 2.2.3 | 3.3 | 12 | 0.2 |
| 2.3 | 1.6 | 7 | 0.5 |
| 2.4.1 | 1.3 | 6 | 0.7 |
| 2.4.2 | 1.5 | 6 | 0.2 |
| 3.1 | 2.6 | 9 | 2.1 |
| 3.2.1 | 1.3 | 7 | 0.7 |
| 3.2.2 | 2.9 | 8 | 0.7 |
| 3.2.3 | 3.0 | 9 | 0.5 |
| 3.3 | 2.3 | 8 | 2.0 |
| 3.4 | 2.5 | 12 | 1.3 |
| 4.1.1 | 0.8 | 3 | 0.7 |
| 4.1.2 | 0.8 | 3 | 0.6 |
| 4.2 | 2.0 | 13 | 1.4 |
| 4.3.1 | 0.5 | 3 | 0.3 |
| 4.3.2 | 0.7 | 3 | 0.5 |
| 4.4 | 0.9 | 5 | 0.7 |

Source: European Commission, JRC, 2020.

## 5. IMPACT OF MODELLING ASSUMPTIONS ON THE TPI RESULTS

A fundamental step in the statistical analysis of a composite indicator is to assess the effect of different modelling assumptions on the country rankings. Despite the efforts in the development process, there is an unavoidable subjectivity (or uncertainty) in the resulting choices. This subjectivity can be explored by comparing the results obtained under different – alternative – assumptions.

The literature on this topic[5] suggests assessing the robustness of the index by means of a Monte Carlo simulation and by applying a multi-modelling approach. This also assumes 'error-free' data as possible errors have already been corrected in the preliminary stage of the index construction before the audit.

The TPI, like most composite indicators, is the outcome of several choices. Among other things, these choices include: (i) the underlying theoretical framework; (ii) the indicators selected; (iii) the imputation of missing values; (iv) the weights assigned; and (v) the aggregation method. Some of these choices may be based on expert opinion or other consideration driven by: statistical analysis or the need to ease communication or draw attention to specific issues.

This section aims to test the impact of varying some of these assumptions within a range of plausible alternatives in an uncertainty analysis. The objective is therefore to try to quantify the uncertainty in the ranks of the TPI, which can demonstrate the extent to which countries can be differentiated by their scores.

5 Saisana, M., B. D'Hombres, and A. Saltelli. 2011. 'Rickety Numbers: Volatility of University Rankings and Policy Implications'. *Research Policy*, 40: pp. 165–177.
Saisana, M., A. Saltelli, and S. Tarantola. 2005. 'Uncertainty and Sensitivity Analysis Techniques as Tools for the Analysis and Validation of Composite Indicators', *Journal of the Royal Statistical Society* A 168 (2): pp. 307–323.

**TABLE V.8: Alternative assumptions considered in the analysis**

| | Reference | Alternative |
|---|---|---|
| **I. Aggregation formula** | Arithmetic average | Geometric average |
| **II. Imputation of missing data** | No imputation | k-nearest neighbour imputation |
| **III. Weighting system of pillars** | Fixed weights | Varying up to 25% |
| Economic | 0.20 | U[0.15;0.25] |
| Social | 0.20 | U[0.15;0.25] |
| Environmental | 0.35 | U[0.26;0.44] |
| Governance | 0.25 | U[0.19;0.31] |

Source: European Commission, JRC, 2020.

The modelling issues considered in the robustness assessment of the TPI are the aggregation formula, the pillars' weights, and the imputation of the missing data. The following paragraphs deal with each of these in turn.[6]

**Aggregation formula**. The TPI team opted for the arithmetic averaging of the four pillars, which implies a strong compensability, allowing for an outstanding performance in some aspects to balance weaknesses in others and vice-versa. This approach puts at the same level countries that have both high and low results with more 'balanced' countries showing average results. To assess the impact of this choice, the JRC included in the analysis a comparison with the geometric mean. The comparison of the two aggregation approaches should be able to highlight countries with unbalanced profiles, since the geometric mean tends to penalise low values, especially in the presence of other values that are not so low (unbalanced profiles).

**Missing data**. The missing in the TPI are not numerous. Namely only those remaining after the imputation performed by the developers and based on the observations of the previous years. The TPI team opted to avoid imputation. As a comparison, the JRC-COIN included the imputation of the remaining missing values using the k-Nearest Neighbour method.

**Weights**. Monte Carlo simulation comprised 1 000 runs of different sets of weights for the four pillars constituting the TPI. The weights are the result of a random extraction based on uniform continuous distributions centred in the reference values[6] plus or minus 25% of these values.

Four models were tested combining the different aggregation formulas and imputation methods, which resulted in a total of 4 000 runs of simulations (1 000 simulated sets of weights for each combination of aggregation and imputation).

The main results obtained from the robustness analysis are shown in **Figure V.2**, with median ranks and 90% intervals computed across the 4 000 Monte Carlo simulations. Countries are ordered from best to worst according to their original TPI rank, where the blue dots represent the median rank among the iterations. For each country, the error bars represent the 90% interval across all simulations, i.e. from the 5$^{th}$ to the 95$^{th}$ percentile.

TPI ranks are shown to be representative of a plurality of scenarios and robust to changes in the aggregation method, imputation and pillar weights. Suppose one considers the median rank across the simulated scenarios as being representative of these scenarios. In this case, the fact that the TPI rank is close to the median rank (less than three positions away) for 96% of the countries suggests that the TPI represents a suitable summary measure of the four scenarios tested. Furthermore, the reasonable narrow intervals for most of the countries' ranks (less than 10 positions for about 93% of countries) imply that the ranks are also, for most countries, robust to changes in the pillars' weights and other modelling assumptions.

6 Note from index developers: As indicated in the introduction, Sections 2 to 4 are based on a first set of data whereas, for consistency with published data, this part of the audit was performed again using an updated set of data. Updates include: (i) For most indicators, missing data was imputed from external sources; (ii) for indicator 1.4.2 - Patent families filed in two offices (per billion PPP$ GDP), the series was smoothed with a moving average over three years; (iii) for indicator 2.2.3 - Early childhood care and education (%), the age coverage was expanded to 0 to 5 years; (iv) for indicator/pillar 3.4 - Energy productivity (PPP$ per koe), the International Energy Agency sent updated data (refer to Appendix III - Sources and definitions for details).

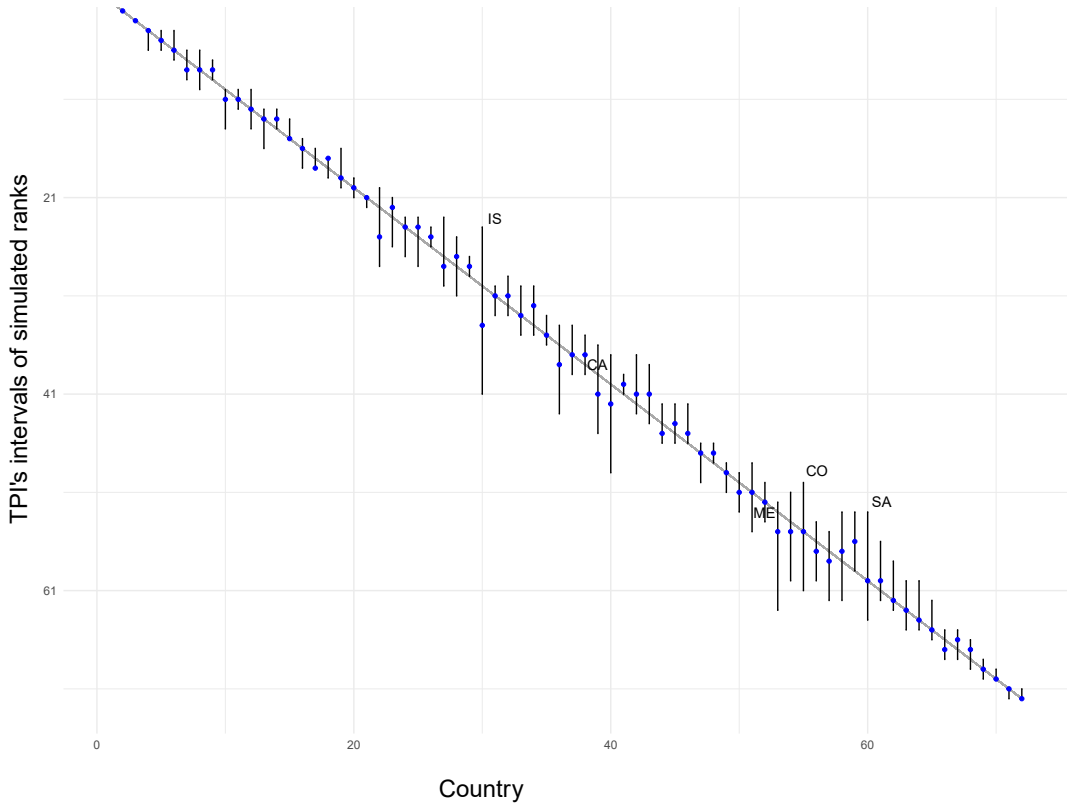
7 Weights of the pillars: 0.20, 0.20, 0.35, 0.25.

Only five countries show a simulated interval larger than – or equal to – 10 positions: Canada, Colombia, Iceland, Montenegro and Saudi Arabia. Probably, this is due to the lack of balance among their values on the three pillars. When a country shows unbalanced values, it is particularly penalised by the geometric mean. This aspect is investigated in the following paragraphs.

Overall, country ranks in TPI are very robust to changes in the pillar weights, imputation method, and aggregation formula for most of the countries considered. These ranks are robust enough to allow for meaningful inferences to be drawn. For full transparency and information, Table V.8 reports the country ranks together with the simulated intervals (central 90 percentiles observed among the 4 000 scenarios) in order to appreciate better the robustness and behaviour of specific countries with respect to perturbations.

The uncertainty analysis is also complemented by a sensitivity exercise, in which the TPI ranking is compared with the rankings resulting from specific changes in the modelling assumptions. In Figure V.3, it is possible to compare the ranks derived from TPI with the ranks that would have been obtained by changing the aggregation procedure from arithmetic to geometric mean. This comparison makes it possible to inquire whether the variability in the rank intervals originates from the modelling assumptions underlying the aggregation procedure. In the figure, the countries placed under the diagonal decrease in rank positions with the geometric mean. They are probably penalised by the geometric mean for their unbalanced profiles. All countries with a larger interval in the robustness analysis are influenced by the aggregation formula. In particular, Canada, Iceland and Montenegro show at least five positions of difference when comparing the two alternative formulas.

**FIGURE V.2: Robustness analysis on ranks (TPI rank vs. median rank and 90% intervals)**



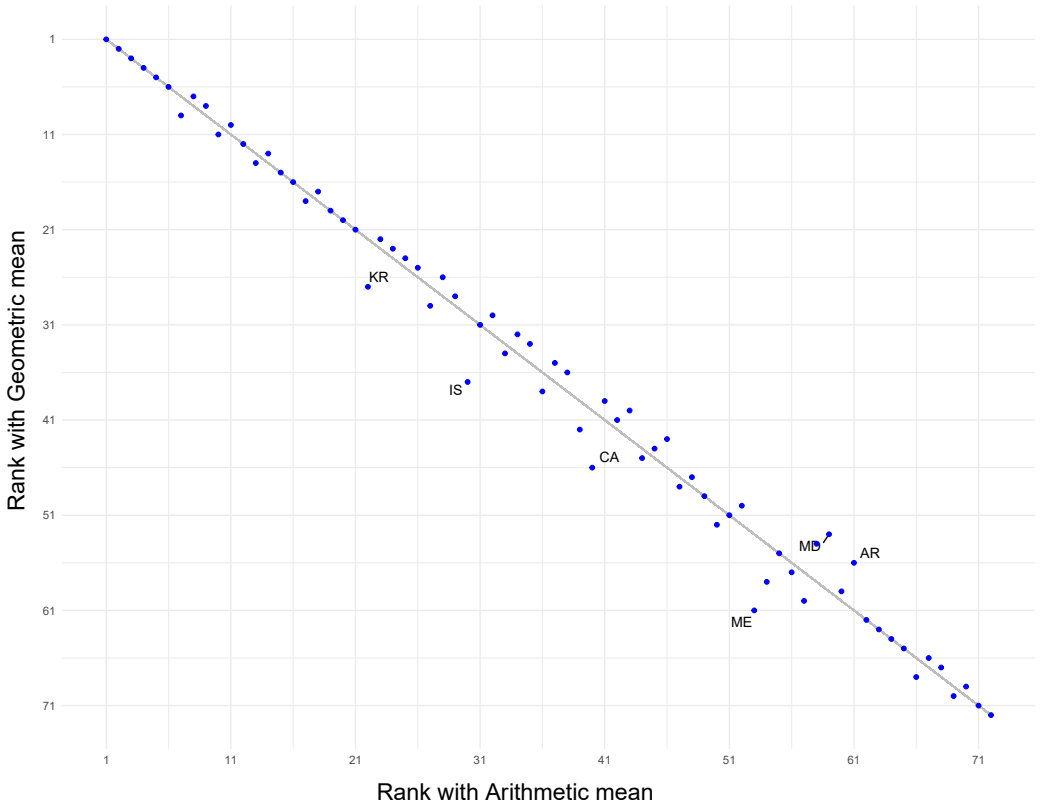

Source: European Commission, JRC, 2020.

**TABLE V.9: TPI rank and 90% interval of all countries**

| ISO2 | Country | TPI Rank | Interval | ISO2 | Country | TPI Rank | Interval |
|---|---|---|---|---|---|---|---|
| CH | Switzerland | 1 | [1-1] | BG | Bulgaria | 37 | [34-39] |
| DK | Denmark | 2 | [2-2] | US | United States | 38 | [35-39] |
| NL | Netherlands | 3 | [3-3] | AL | Albania | 39 | [36-45] |
| UK | United Kingdom | 4 | [4-6] | CA | Canada | 40 | [37-49] |
| IR | Ireland | 5 | [4-6] | AE | United Arab Emirates | 41 | [39-41] |
| SE | Sweden | 6 | [4-7] | MK | North Macedonia | 42 | [37-43] |
| NO | Norway | 7 | [6-9] | MY | Malaysia | 43 | [38-44] |
| MT | Malta | 8 | [6-10] | ID | Indonesia | 44 | [42-46] |
| DE | Germany | 9 | [7-9] | CL | Chile | 45 | [42-46] |
| LU | Luxembourg | 10 | [10-14] | TH | Thailand | 46 | [42-46] |
| AT | Austria | 11 | [10-12] | MA | Morocco | 47 | [46-50] |
| FR | France | 12 | [10-14] | TN | Tunisia | 48 | [46-48] |
| SI | Slovenia | 13 | [12-16] | DZ | Algeria | 49 | [48-51] |
| BE | Belgium | 14 | [12-14] | GE | Georgia | 50 | [49-53] |
| JP | Japan | 15 | [13-15] | **WD** | **World** | **51** | **[48-52]** |
| IT | Italy | 16 | [15-18] | CN | China | 51 | [48-55] |
| **EU** | **EU-27** | **17** | **[16-17]** | TR | Turkey | 52 | [50-54] |
| CZ | Czechia | 17 | [16-18] | ME | Montenegro | 53 | [52-63] |
| ES | Spain | 18 | [17-19] | PH | Philippines | 54 | [51-60] |
| FI | Finland | 19 | [16-20] | CO | Colombia | 55 | [50-61] |
| PT | Portugal | 20 | [19-21] | VN | Viet Nam | 56 | [54-60] |
| SK | Slovakia | 21 | [21-22] | AM | Armenia | 57 | [55-62] |
| KR | South Korea | 22 | [20-28] | RS | Serbia | 58 | [53-62] |
| LV | Latvia | 23 | [21-26] | MD | Moldova | 59 | [53-59] |
| HR | Croatia | 24 | [23-27] | SA | Saudi Arabia | 60 | [53-64] |
| LT | Lithuania | 25 | [23-28] | AR | Argentina | 61 | [56-62] |
| PL | Poland | 26 | [24-26] | EG | Egypt | 62 | [58-63] |
| EE | Estonia | 27 | [23-30] | IN | India | 63 | [60-65] |
| HU | Hungary | 28 | [25-31] | MX | Mexico | 64 | [60-65] |
| IL | Israel | 29 | [27-29] | UK | Ukraine | 65 | [62-66] |
| IS | Iceland | 30 | [24-41] | BA | Bosnia and Herzegovina | 66 | [65-68] |
| CY | Cyprus | 31 | [30-33] | BR | Brazil | 67 | [65-68] |
| SG | Singapore | 32 | [29-33] | RU | Russia | 68 | [66-69] |
| NZ | New Zealand | 33 | [30-35] | KE | Kenya | 69 | [68-70] |
| EL | Greece | 34 | [30-35] | IR | Iran | 70 | [69-70] |
| RO | Romania | 35 | [33-36] | ZA | South Africa | 71 | [71-72] |
| AU | Australia | 36 | [34-43] | NG | Nigeria | 72 | [71-72] |

Source: European Commission, JRC, 2020.

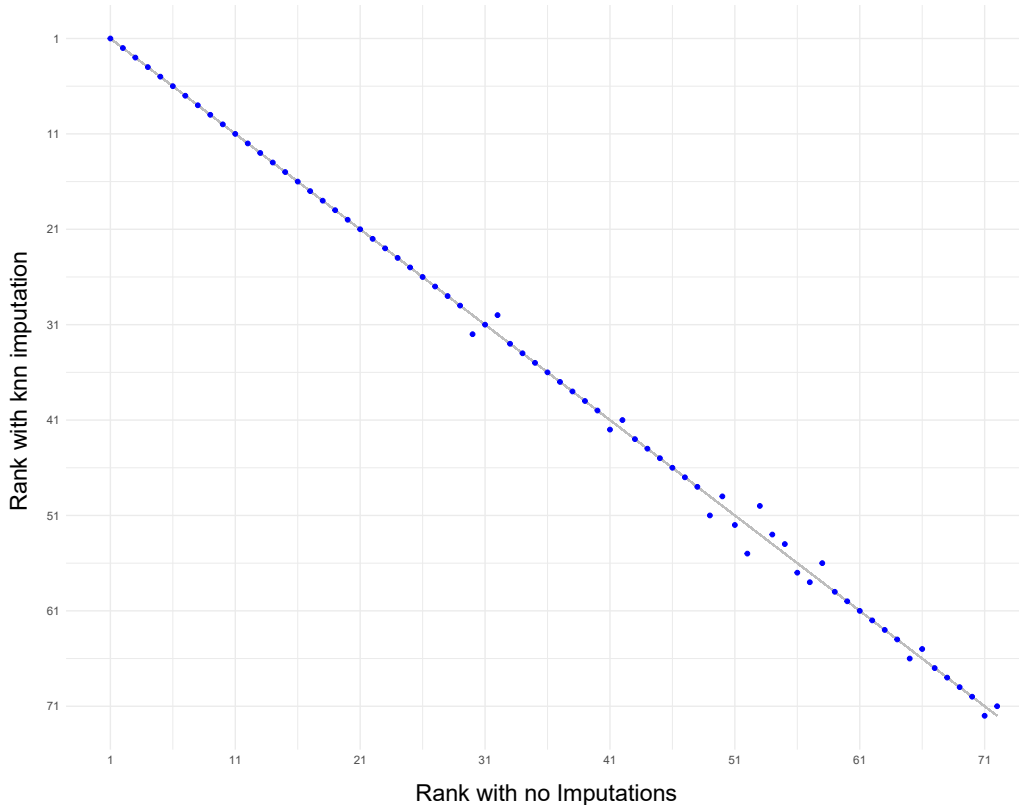
**FIGURE V.3: Sensitivity Analysis: Comparison of ranks according to arithmetic and geometric mean**




Source: European Commission, JRC, 2020.

Similarly, it is possible to compare the original TPI ranks with the ranks that would have been obtained by changing the imputation method (**Figure V.4**). This comparison makes it possible to further investigate the source of the variability in the rank intervals. The TPI is generally not influenced by the imputation of the remaining missing values, probably because of the small number of such values. No country shows shifts of at least five positions in this comparison.

**FIGURE V.4: Sensitivity Analysis: Comparison of ranks according to the imputation method**




Source: European Commission, JRC, 2020.

## 6. CONCLUSIONS

The JRC statistical audit delves into the extensive work carried out by the developers of the TPI with the aim of suggesting improvements in terms of data characteristics, structure and methods used. The analysis aims to ensure the transparency of the index methodology and the reliability of the results.

The data coverage of the framework is very good. Most indicators contain no missing values for 2019 because the developers imputed the data from previous years. The use of 2018 data is a perfectly acceptable lag for the TPI considering the international coverage of the index. Taking into account the international socio-economic situation, we could expect some conceptual issues in the imputation of 2020 data for future editions.

Only three indicators present outliers that are implicitly treated with goalpost normalisation. The analysis suggests that, generally, the TPI is statistically well balanced in its pillars. Correlations between each pillar and the respective sub-pillars are mostly significant and positive. There are mostly positive correlations between indicators and their corresponding sub-pillar, thus suggesting that most of the indicators provide meaningful information on the variation of the scores.

However, a few issues were identified. Firstly, indicators/ sub-pillars 3.1 - Gross GHG emissions and 4.4 - Government gross debt correlate poorly or negatively with their pillar and the index. Overall, the environmental pillar contributes less to the index than the other three pillars. Given the conceptual significance of the environmental pillar in the framework, the JRC would recommend monitoring the performance of this pillar in future editions of the index and refining or modifying the included indicators.

Secondly, indicators 1.4.1 and 3.2.3 show very low, when not negative, correlations with the other indicators in their pillars. This may suggest that these indicators do not entirely fit within their sub-pillar, and this may cause a conflict between results and reduce the significance of the aggregate to which they belong.

The JRC analysed a series of different choices that were made during the construction of the index. The results of the uncertainty analysis reveal that the TPI is a robust summary measure for almost all countries. The simulated intervals are narrow enough for meaningful inferences to be drawn from the index; there is a shift of less than 10 positions for about 93% of the countries included in the index. Nevertheless, there are five countries with 90% confidence interval widths of at least 10 positions. Thus their ranks vary significantly with changes in weights and aggregation method, as observed in the sensitivity analysis.

In general, this audit confirms that the TPI is reliable, and that the framework has good statistical coherence. The audit also acknowledges the significant efforts by the developers' team to obtain a balanced and transparent result.

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# APPENDIX VI

## ABOUT THE AUTHORS

**Pierre Vigier** is an economist. Before joining the European Commission, he was a member of several French ministerial cabinets, notably foreign affairs, and an adviser for regional planning and economic development in the Office of the Prime Minister. He was then responsible within the European Commission for the development of industrial strategy, automobile policy, enterprise policy (notably designing the definition of SMEs and launching the first EU initiative to support venture capital), trade (notably EU-Japan automobile and electronic equipment trade agreements), industrial cooperation (China, Japan, South Korea), innovation and research policy. Member of the Cabinet of the European Commissioner for Education, Research, Innovation and Youth, he launched the foresight agenda of the Joint Research Centre and coordinated the industry and innovation parts of the EU research and innovation framework programme and designed the Galileo project. Head of the Unit in charge of Economic and Statistical Analysis at the Directorate-General for Research and Innovation of the European Commission, he coordinated and published numerous economic studies and policy papers, designed several dashboards and indexes such as the Innovation Scoreboard and coordinated the European Semester for that department. He is currently advising the Prosperity Directorate of the Directorate-General for Research and Innovation . He holds a Master in Law (University of Paris), a Master in Economics (ESSEC) and a Master in Political Sciences (Sciences Po Paris).

**Daniela Benavente** is a PhD economist. She works as a consultant in comparative public policy and international composite indicators, with expertise in sustainable development, international trade, intellectual property, innovation, and skills. In this domain, she has collaborated with a number of organisations and bodies, including the European Union (DG RTD, JRC, REA Horizon2020, Cedefop), the United Nations (WIPO, FAO, ITC, ITU, IFAD, UNDP), the OECD, the World Bank, the Inter-American Development Bank, the Misk Foundation and ICTSD/WEF. Previously, she worked for INSEAD as Lead Researcher and Project Manager of the Global Innovation Index (INSEAD, WIPO, Cornell University, 2010-2013). In 2019 she was Executive Coordinator of the Scientific Committee on Climate Change for Chile's Presidency of the UNFCCC COP25. She started her career as economic advisor in the Cabinet Office of the President of Chile (2001-2002); the Chilean Ministry of Foreign Affairs (1998-1999) and the Ministry of Economy (1996-1998). She holds a PhD and Master in International Economics from the Graduate Institute of International and Development Studies in Geneva, Switzerland; a Master of International Affairs from Columbia University in the City of New York (Fulbright and Dean's Scholar); the Diplôme in economics and finance from the Institut d'Études Politiques de Paris (Sciences-Po Paris); and has a BA in economics from Pontificia Universidad Católica de Chile. She is a dual citizen of Chile and Switzerland.

**Giulio Caperna** is a researcher and statistician at the European Commission's Joint Research Centre in Ispra, Italy. Before joining the Competence Centre on Composite Indicators and Scoreboards (COIN), Giulio worked at the University of Padua as Post-Doc researcher where he taught statistics and construction of composite indicators. Before taking his PhD in statistical science at the University of Padua, he worked as data-manager and data-analyst in a medical department in Rome. Giulio studied statistical science and demography at the Sapienza University of Rome. His main research interests include the methodology of composite indicators and its use for describing complex concepts, such as civic participation and well-being.

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The Transitions Performance Index (TPI) 2020 is the first edition of a new composite indicator, which measures the performance of countries along four transitions: economic, social, environmental and governance. Most of the TPI indicators are outcome-oriented in order to present to the public and policymakers the combined impact of the policy mix implemented in each country. Using comparable international data, the TPI covers countries representing 91% of global gross domestic product (PPP$ GDP). Using a 'beyond GDP' approach, it enables a comparison of country performances in progressing towards fair, equitable and sustainable prosperity.

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