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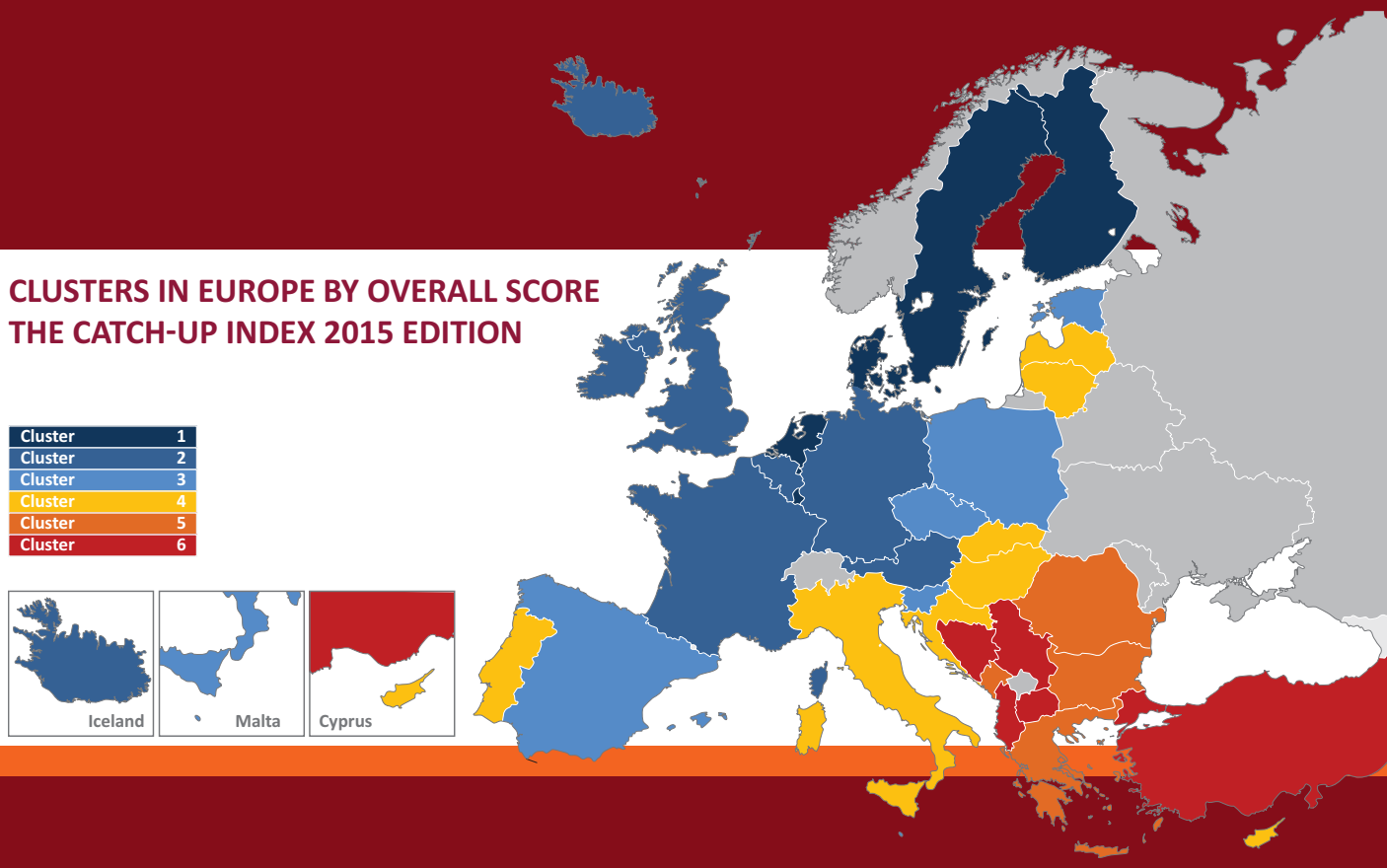
DON'T PANIC

FINDINGS OF THE EUROPEAN CATCH-UP INDEX 2015



Marin Lessenski

About EuPI

The European Policy Initiative (EuPI) of OSI-Sofia aims to stimulate and assist the new European Union Member States from Central and Eastern Europe to develop capacity for constructive co-authorship of common European policies at both governmental and civil society level. As a priority area of the European Policies Program of the Open Society Institute – Sofia, EuPI will contribute to improving the ability of the new Member States to effectively impact common European policies through good quality research, policy recommendations, networking and advocacy. The initiative operates in the ten new Member States from CEE through a network of experts and policy institutes.

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About the report

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Catch-Up Index 2015: Overall Scores											
Group	Country	Overall Score 2015	Rank 2015	Score change vs 2014	Score change vs 2013	Score change vs 2012	Score change vs 2011	Rank Change vs 2014	Rank change vs 2013	Rank change vs 2012	Rank change vs 2011
EU15+2	Austria	66	7	0	0	1	1	0	0	0	0
EU15+2	Belgium	62	11	-1	0	0	1	-1	0	-1	0
EU15+2	Cyprus	49	20	0	-3	-6	-6	-1	-2	-6	-6
EU15+2	Denmark	71	3	0	-1	-1	-1	0	-1	0	-1
EU15+2	Finland	70	5	-1	0	-1	0	-1	0	-1	0
EU15+2	France	60	12	0	-1	0	0	0	0	0	0
EU15+2	Germany	67	6	1	1	2	3	0	0	0	3
EU15+2	Greece	38	27	0	-1	-4	-7	0	0	-2	-2
EU15+2	Ireland	64	9	2	2	2	0	2	1	2	-1
EU15+2	Italy	47	23	0	1	-1	-2	0	0	-1	-3
EU15+2	Luxembourg	71	1	-1	0	-1	0	1	2	0	0
EU15+2	Malta	54	15	-1	0	0	0	-2	0	1	1
EU15+2	Netherlands	70	4	0	0	0	0	-4	0	1	0
EU15+2	Portugal	49	21	1	1	-1	-2	-1	0	-2	-2
EU15+2	Spain	52	17	1	0	-1	-3	0	0	0	-2
EU15+2	Sweden	71	2	-1	-1	-1	0	-1	-1	0	1
EU15+2	UK	63	10	0	0	1	1	-1	-2	-1	0
EU10+1	Bulgaria	34	29	-1	-1	-1	-1	0	-1	0	-1
EU10+1	Croatia	41	26	1	0	0	0	0	0	0	0
EU10+1	Czech Republic	55	14	0	-1	0	1	1	-1	1	3
EU10+1	Estonia	55	13	1	2	3	3	1	3	5	5
EU10+1	ungary H	42	25	-2	-3	-4	-5	0	-1	-2	-2
EU10+1	Latvia	47	24	3	5	7	6	0	1	3	3
EU10+1	Lithuania	49	19	1	2	5	4	3	3	5	5
EU10+1	Poland	51	18	1	1	2	4	0	2	2	4
EU10+1	Romania	36	28	2	2	1	3	2	1	0	1
EU10+1	Slovakia	48	22	0	-1	0	1	-1	-3	-1	-1
EU10+1	Slovenia	52	16	-1	-2	-3	-4	0	-2	-3	-3
CC	Iceland	65	8	0	2	1	0	0	1	0	-2
CC	Macedonia	27	32	1	1	0	-1	1	0	0	0
CC	Montenegro	32	30	-2	-1	2	2	-2	0	0	0
CC	Serbia	27	31	0	-1	-1	0	0	0	0	0
CC	Turkey	25	33	-2	0	0	1	-1	0	0	0
CC	Albania	21	34	0	-2	1	1	1	0	1	1
PCC	BiH	20	35	-3	-2	-3	-2	-1	0	-1	-1

Reporting on the "Five-Year Plan": Progress, Regress or Stagnation

Vladimir Ilich Lenin would have probably defined the current situation in the EU as revolutionary as the "the bottoms don't want and the tops cannot live in the old way". News and commentaries about the EU became increasingly alarming, as the Union faced several concurrent challenges. The memory of the 2008 financial crisis is almost benign at the backdrop of the current pressing challenges: refugees, terrorism and geopolitical challenges across the neighborhood, the prospects of Grexit and Brexit, the unravelling of Schengen and the Eurozone, and above all, the sense of loss of solidarity, leadership and direction.

The year 2015 also witnessed the return of the "East-West divide" paradigm in the context of the authoritarian tendencies in the Visegrad countries (and certainly a host of non-EU countries) as well as "solidarity" regarding the treatment of refugees in the EU. In fact, solidarity within the EU members may have been lost, but a new "solidarity" arguably has emerged in the Visegrad Four and others.

Attention was suitably focused on policy differences and similarities among the EU Member States, as they are the fore of cleavages in Europe. Addressing the problems boils down to two approaches: either the EU Member States converge towards common solutions or they diverge with every country fending for itself. In fact, a more plausible variation of the latter is the formation of smaller blocs within the EU, which will forge ahead with the EU project – e.g. the "mini-Schengen" or a core around the Eurozone members and others.

But there is an alternative perspective to the convergence and divergence narrative in Europe, suggested by the Catch-Up Index, which measures the performance of 35 European countries in four categories – Economy, Quality of Life, Democracy and Governance – across 47 indicators. The original goal of the index was to measure how well the "new" at the time EU Member States were catching up with the rest of the EU, i.e. the older members. But the index results can provide more information and insights based on the performance of the countries, their similarities and differences and trends in development – progress, regress or stagnation.

This is the fifth edition of the Catch-Up Index and it registers the situation as of 2015. The timespan provides the opportunity to trace longer-term trends by comparing results to the previous four editions. The countries included in the index are the 28 EU Member States, the candidate and potential candidate countries. In the report, these are designated as the EU10+1 group – the ten EU Member States from the fifth wave of EU enlargement in 2004 and 2007 as well as Croatia, which joined in 2013. Until recently referred to as the "new" Member States, these countries used to share experience of the post-communist transition, then the EU accession process and the adjustment to the EU after the accession. The reference group, which sets the benchmark for achievement, is the EU15+2 or the "Western", "old" EU Member States plus Malta and Cyprus.

About The European Catch-Up Index

The Catch-Up Index measures the performance of 35 countries - the EU Member States, the candidate and potential candidate countries across four categories - Economy, Quality of Life, Democracy and Governance. There are scores for each category and an Overall Score, composed of the scores for the four categories.

Each category is measured through selected indicators and sub-indicators. The various data for the indicators is converted into scores and weighted on the basis of the index methodology. The standardized scores make possible different rankings, comparisons, benchmarking, monitoring of performance for countries and groups of countries across categories and indicators. The metrics is based on rescaling the raw data on a scale from 0 to 100 (lowest to highest), giving the scores of a country, and positions from 1 to 35 (highest to lowest), giving the ranking of a country.

The Catch-Up Index has been initially designed to capture the progress of the EU10+1 countries - the EU members from Central and Eastern Europe, including Croatia in 2013- in catching up with the rest of the EU (EU15+2) by measuring their overall performance across the four categories - Economy, Quality of Life, Democracy and Governance. This is the fifth edition of the index, with previous editions for 2011, 2012, 2013 and 2014.

Highlights of the Catch-Up Index Findings

The Case for Convergence in Europe

- The five-year trend of the Catch-Up Index 2011-2015 registers that the catching-up of the EU10+1 is working, as countries progress towards the desired goals. But there is also regress and stagnation, as some countries either fail to develop or backtrack on their achievements.

- Quality of Life with public services remains the most problematic area of convergence. As it is directly affecting the citizens, the frustrations might be projected onto the EU and membership. Economy is the least problematic area of the catching-up, while performance in Democracy and Governance varies.

- There seem to be geographic patterns of convergence and divergence in Europe with clusters of countries with similar characteristics. A diagonal line of division has been created by the gradual shift from East-West to a North-South rift in Europe, as the Northwest clusters are opposite to the Southeast ones.

- Significant divergences in economy, quality of life, democracy or governance add up or translate into policy differences between the EU countries, diminish internal cohesion and impact solidarity in the EU. Europe cannot afford this any longer.

- To prevent this, convergence in the EU through the catching-up process should be accelerated. It is essential to regard the convergence process as encompassing not only the economy, but also democracy, good governance, quality of life, as they seem to be closely related in the European model of development.

- Success in catching up is paramount for the legitimacy of the EU project, as citizens expect the EU membership to bring about the desired levels of development, public services or good governance commensurate with those of the wealthier and more developed states. Even in cases of agreement on common policies among EU members, differences in capacity may erode the implementation of policies.

Not Too Bad, in Fact: The Catching-Up Process for the EU10+1

The most important observations of the new Catch-Up Index regarding the EU10+1 include the following:

- The catching-up process is working and producing results at large, despite setbacks and frustration at the backdrop of high expectations.

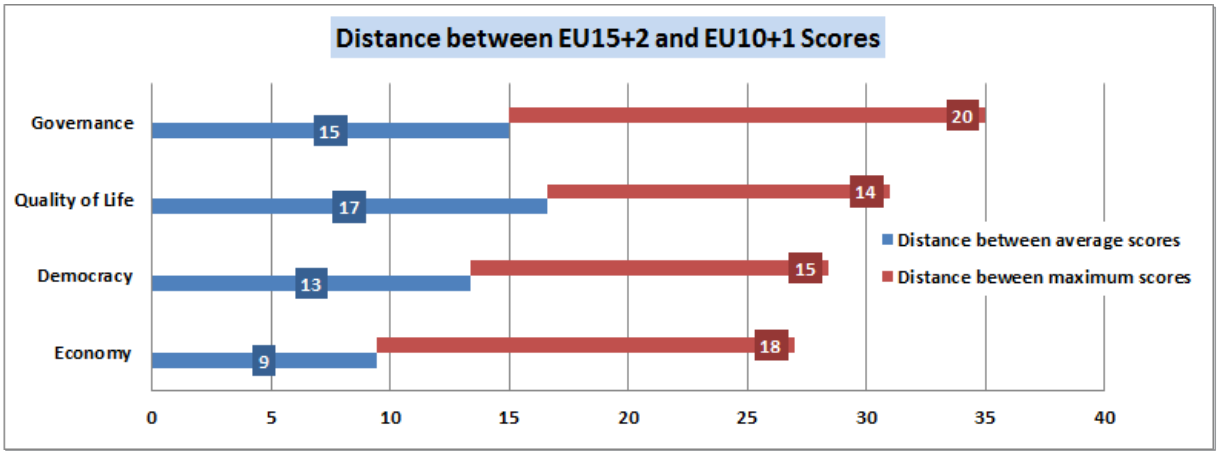
- After five editions of the Catch-Up Index, the data shows that the EU10+1 is the only group of countries that registers improvement over time, as candidate countries have largely stagnated and the performance of the EU15+2 varies.

- However, there is still a significant divide between the EU10+1 and the better performers of the EU15+2, as none of the CEE countries exceeds the "average EU15+2" benchmark in the four categories and they are far from the best performers.

Group	Country	Overall Score 2015	Rank 2015	Score change vs 2014	Score change vs 2013	Score change vs 2012	Score change vs 2011	Rank Change vs 2014	Rank change vs 2013	Rank change vs 2012	Rank change vs 2011
EU10+1	Bulgaria	34	29	-1	-1	-1	-1	0	-1	0	-1
EU10+1	Croatia	41	26	1	0	0	0	0	0	0	0
EU10+1	Czech Republic	55	14	0	-1	0	1	1	-1	1	3
EU10+1	Estonia	55	13	1	2	3	3	1	3	5	5
EU10+1	Hungary	42	25	-2	-3	-4	-5	0	-1	-2	-2
EU10+1	Latvia	47	24	3	5	7	6	0	1	3	3
EU10+1	Lithuania	49	19	1	2	5	4	3	3	5	5
EU10+1	Poland	51	18	1	1	2	4	0	2	2	4
EU10+1	Romania	36	28	2	2	1	3	2	1	0	1
EU10+1	Slovakia	48	22	0	-1	0	1	-1	-3	-1	-1
EU10+1	Slovenia	52	16	-1	-2	-3	-4	0	-2	-3	-3

- Reversal of achievements can be registered too, as some countries backslide in areas where they used to be among the better scoring ones.

- The catching-up seems to be an equal-opportunity process, as success is not limited to few counties only. But this underscores also the diversity within the EU10+1 group, with some countries doing much better than others.

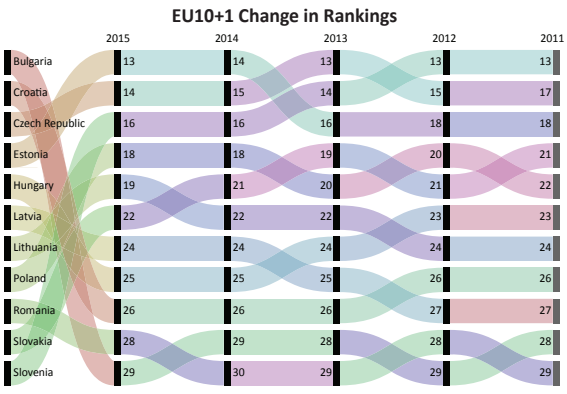


- Quality of Life remains the most challenging category of the catching-up process, creating the most significant gap between the EU10+1 and the EU15+2 groups. For example, the hardest hit Greece has reached 32nd place in the Economy out of 35 countries in total, but stays in the middle zone of the ranking with 22nd place in Quality of Life.

- The catching-up in the Economy category is least problematic according to the index indicators, followed by progress in Governance and Democracy.

- There is a method in the catching-up, as the four categories are closely linked – e.g. poor governance and lower economic development go hand in hand - and one country cannot afford to skip performance in one category and expect to advance in another.

The Prize Winners: Countries that Made Impression this Year



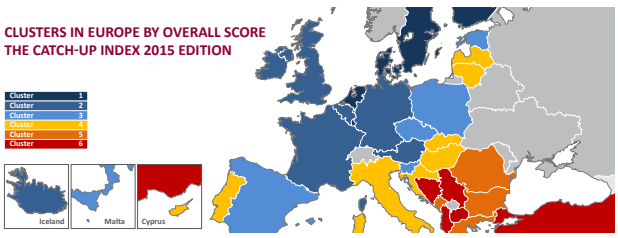
Estonia arguably represents best the upside of the catching-up process, as it managed to be the overall best performer in the EU10+1 group, starting from a lower 18th position in the first edition of the Index in 2011 and reaching 13th rank out of 35. There is a certain geographic pattern, as fellow Baltic states Lithuania and Latvia register improvement over the years. In comparison, Slovenia and the Czech Republic, which previously dominated across the board, worsened their performance.

Hungary has been criticized for the authoritarian tendencies of its government, but the Index shows that Hungary regressed not only in the Democracy ranking as expected, but also in Governance and Quality of Life.

Romania deserves a special mention as it registers improvement after shaky performance near the bottom of the ranking in previous editions of the index. If it can keep up this positive trend, it can join the better performers in the group.

Divergence and Convergence in the EU

The clusters of the Catch-Up Index are an alternative perspective on multi-speed Europe by showing the divergence and convergence dynamic. But instead of being based on "political clubs" of integration - such as Schengen or the Eurozone - the clusters show groups of countries based on the similar characteristics of the states.



Too much divergence might add up to the policy divides and the solidarity deficit in the EU, undermining coherence and ultimately the future integration.

In addition, the clusters often have certain geographic patterns, making the prospect of small groups of EU members splitting from the rest – or being split from the rest – more feasible. But this is no longer the case of flexible cooperation in its beneficial forms, as the worst case scenario is of the breakup of the EU in its current form by dismantling the achievements so far.

The Catch-Up Index has identified several divides in Europe based on the findings of the Index:

- There is still the East-West divide, but it is gradually being replaced by a North-South divide – or rather a diagonal line running across Europe.

- The geographic patterns of divergence, based on the index clusters, show the existence of a vanguard and core of Europe to the North and Northwest. The lowest scoring countries are concentrated in the Southeast part of the continent.

- But the countries of the in-between groups demonstrate that a country can join a more advanced group by performing better, or adversely– backtrack to a worse performing group.

- The clusters show that the divides run across all four categories – Economy, Quality of Life, Democracy and Governance – and as they often overlap, they reinforce the existing cracks in Europe.

Is it a Trap? A Positive Reflection on the "European model"

There are currently two burning questions concerning the essence of the EU as a project. Firstly, is the EU failing to deliver and therefore responsible for an array of problems? Secondly, is democracy or the European-style governance responsible for failure in economy or quality of life?

The Catch-Up Index in its own, though limited, right suggests that the answers tends to be "no" and "no". With regard to the EU role, the index suggests that the catching-up for the EU10+1 is real and happening. This is the single group of states that is progressing, while the candidate countries have generally stagnated and the EU15+2 countries' records vary significantly. Convergence may be slower, and not as successful as expected in some cases, but it is occuring nonetheless.

With regard to the second question, there seems to be a strong link between performances in different categories. This is good in case the country has a strong democracy or governance record as it would certainly have high economic results and vice versa. But in case of poor results, the performance gaps tend to be projected on other factors, e.g. democracy is blamed for poor governance and economy. In reality, it would rather be democracy deficits that are in interplay with poor economy or governance.

Changes and Clusters: The Most Important Takeaways

The index results can be viewed both as changes of score and rankings as well as clusters. Superimposing the changes and clusters yields probably the most important takeaways:

- The changes occur mostly within two specific clusters. These are the middle 3rd and 4th clusters, where most of the action, up or down the ranking, takes place.

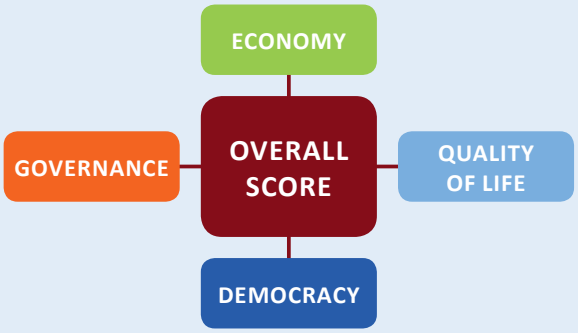
- The clusters follow certain geographic patters, with a shift along the North-West to South-East axis. The 3rd and 4th clusters, where the changes occur, include CEE and South European states.

The geographic patterns of convergence and divergence offer an opportunity for an intriguing debate. It seems that the Central European and Baltic countries are catching up more successfully and converging with the better performing clusters which are their close neighbors to the North and to the West. In comparison, the worse performing "older" Member States are moving away from the clusters they are supposed to be in. Instead, they are getting closer or joining their neighbors' clusters with the Balkans being the appropriate illustration. One might also be tempted to associate these geographic patterns to historic patterns in existence 70 or more years ago.

Change of Scores and Clusters

Group	Country	Overall Score 2015	Rank 2015	Score change vs 2014	Score change vs 2013	Score change vs 2012	Score change vs 2011	Rank change vs 2014	Rank change vs 2013	Rank change vs 2012	Rank change vs 2011	Clusters
EU15+2	Luxembourg	71	1	-1	0	-1	0	1	2	0	0	1
EU15+2	Sweden	71	2	-1	-1	-1	0	-1	-1	0	1	
EU15+2	Denmark	71	3	0	-1	-1	-1	0	-1	0	-1	
EU15+2	Netherlands	70	4	0	0	0	0	-4	0	1	0	
EU15+2	Finland	70	5	-1	0	-1	0	-1	0	-1	0	
EU15+2	Germany	67	6	1	1	2	3	0	0	0	3	2
EU15+2	Austria	66	7	0	0	1	1	0	0	0	0	
CC	Iceland	65	8	0	2	1	0	0	1	0	-2	
EU15+2	Ireland	64	9	2	2	2	0	2	1	2	-1	
EU15+2	UK	63	10	0	0	1	1	-1	-2	-1	0	
EU15+2	Belgium	62	11	-1	0	0	1	-1	0	-1	0	
EU15+2	France	60	12	0	-1	0	0	0	0	0	0	
EU10+1	Estonia	55	13	1	2	3	3	1	3	5	5	3
EU10+1	Czech Republic	55	14	0	-1	0	1	1	-1	1	3	
EU15+2	Malta	54	15	-1	0	0	0	-2	0	1	1	
EU10+1	Slovenia	52	16	-1	-2	-3	-4	0	-2	-3	-3	
EU15+2	Spain	52	17	1	0	-1	-3	0	0	0	-2	
EU10+1	Poland	51	18	1	1	2	4	0	2	2	4	
EU10+1	Lithuania	49	19	1	2	5	4	3	3	5	5	4
EU15+2	Cyprus	49	20	0	-3	-6	-6	-1	-2	-6	-6	
EU15+2	Portugal	49	21	1	1	-1	-2	-1	0	-2	-2	
EU10+1	Slovakia	48	22	0	-1	0	1	-1	-3	-1	-1	
EU15+2	Italy	47	23	0	1	-1	-2	0	0	-1	-3	
EU10+1	Latvia	47	24	3	5	7	6	0	1	3	3	
EU10+1	Hungary	42	25	-2	-3	-4	-5	0	-1	-2	-2	
EU10+1	Croatia	41	26	1	0	0	0	0	0	0	0	
EU15+2	Greece	38	27	0	-1	-4	-7	0	0	-2	-2	5
EU10+1	Romania	36	28	2	2	1	3	2	1	0	1	
EU10+1	Bulgaria	34	29	-1	-1	-1	-1	0	-1	0	-1	
CC	Montenegro	32	30	-2	-1	2	2	-2	0	0	0	
CC	Serbia	27	31	0	-1	-1	0	0	0	0	0	6
CC	Macedonia	27	32	1	1	0	-1	1	0	0	0	
CC	Turkey	25	33	-2	0	0	1	-1	0	0	0	
CC	Albania	21	34	0	-2	1	1	1	0	1	1	
PCC	BiH	20	35	-3	-2	-3	-2	-1	0	-1	-1	

Categories, Scores and Ranks: About the Methodology Approach



The Catch-Up Index model is simple and is designed to assess the performance of the selected countries across the four categories. Each country is ascribed a score in each category, and the Overall Score is the average of those in the four categories combined. The countries are then ranked according to that score. Performance in the broad categories is assessed on the basis of indicators and sub-indicators, each having a different weight assigned to it, depending on its importance in the Catch-Up Index model. The raw data from different sources is standardized on a scale of 0 to 100 points, so that comparisons or other processing of scores can be made between countries, categories and indicators. The countries' performance is measured relative to each another and not to external targets, because the standardization method assigns the highest score to the best performing country and vice versa. As mentioned above, the scores run on a scale from 0 (lowest) to 100 (highest), while the ranks range from 1 (highest) to 35 (lowest) – the number of countries included in the index.

The EU Member States are divided into four main groups – the EU10+1 and the EU15+2, the CC – candidate countries and PCC – the potential candidate countries. The EU10+1 group includes the ten post-communist countries from Central and Eastern Europe (CEE), which joined in 2004, 2007 and Croatia in 2013. The other, the control group is the EU15+2 – the older Member States plus Cyprus and Malta, which also joined in 2004 but come from a different context and path of development, and thus are closer in characteristics to the older EU members.

The model uses a set of several yardsticks - or benchmarks – against which to assess the progress or lagging of the EU10+1 in meeting the standards of the rest of the EU. The benchmarks can be considered to be targets for the EU10+1.

The index takes as its main benchmark the "EU15+2 Average", which is the mean of the scores of these countries in a given category or indicator as a component of the overall score. The average (or mean of the scores) was preferred to the median (the "middle number" in a range of scores in this case) for a number of practical reasons. The "EU15+2 Average" is a group score and does not correspond to a specific country. Sometimes, the median is also used and the corresponding score can be associated with a particular country.

The other two important benchmarks are the “EU15+2 Maximum”, which is the highest score in the group and the “EU15+2 Minimum”, which is the lowest score in the EU15+2 group. Both the maximum and the minimum score can be associated with a respective country.

Once the “maximum”, “average” and “minimum” are established and the countries are ranked according to their score, it can be easily observed if a particular country is above, below or near any of these benchmarks and how near or far it is to the target.

Other group scores – “average” for the EU10+1, the candidates or potential candidates – can be drawn depending on the task of the comparison.

The “EU15+2 Average” is the main benchmark, because the maximum may be an unrealistically high target, while setting the minimum – the lowest score – as a goal would have no motivational value.

Identifying Trends in Europe: Changes in Scores and Ranking

Trends by Overall Score

The Overall Score is the composite score of the four categories in the index – Economy, Quality of Life, Democracy and Governance. There are two perspectives at reading the results. The first one is to see the general direction the countries are moving, whether they are improving their performance or not. The second one is to assess the countries by the scores (lowest is 0 and highest is 100) and their place in the ranking (1st place is the highest and 35th is the lowest).

The table below shows the progress, stagnation or regress of the three groups of countries – the EU15+2 (Western, older Member States), the EU10+1 (the countries that joined after 2004, 2007 and 2013) and the EU candidate countries. The three most important trends are:

- The group of EU10+1 Member States is the only one that registers progress over a five-year period.

- Seven of the countries of the EU10+1 demonstrate marked improvement year after year, one country shows stagnation and three countries show hesitant development.

- The candidate countries as a whole demonstrate stagnation with only a couple of them showing some positive development.

Trends by Overall Scores											
Group	Country	Overall Score 2015	Rank 2015	Score change vs 2014	Score change vs 2013	Score change vs 2012	Score change vs 2011	Rank Change vs 2014	Rank change vs 2013	Rank change vs 2012	Rank change vs 2011
EU15+2	Austria	66	7	0	0	1	1	0	0	0	0
EU15+2	Belgium	62	11	-1	0	0	1	-1	0	-1	0
EU15+2	Cyprus	49	20	0	-3	-6	-6	-1	-2	-6	-6
EU15+2	Denmark	71	3	0	-1	-1	-1	0	-1	0	-1
EU15+2	Finland	70	5	-1	0	-1	0	-1	0	-1	0
EU15+2	France	60	12	0	-1	0	0	0	0	0	0
EU15+2	Germany	67	6	1	1	2	3	0	0	0	3
EU15+2	Greece	38	27	0	-1	-4	-7	0	0	-2	-2
EU15+2	Ireland	64	9	2	2	2	0	2	1	2	-1
EU15+2	Italy	47	23	0	1	-1	-2	0	0	-1	-3
EU15+2	Luxembourg	71	1	-1	0	-1	0	1	2	0	0
EU15+2	Malta	54	15	-1	0	0	0	-2	0	1	1
EU15+2	Netherlands	70	4	0	0	0	0	-4	0	1	0
EU15+2	Portugal	49	21	1	1	-1	-2	-1	0	-2	-2
EU15+2	Spain	52	17	1	0	-1	-3	0	0	0	-2
EU15+2	Sweden	71	2	-1	-1	-1	0	-1	-1	0	1
EU15+2	UK	63	10	0	0	1	1	-1	-2	-1	0
EU10+1	Bulgaria	34	29	-1	-1	-1	-1	0	-1	0	-1
EU10+1	Croatia	41	26	1	0	0	0	0	0	0	0
EU10+1	Czech Republic	55	14	0	-1	0	1	1	-1	1	3
EU10+1	Estonia	55	13	1	2	3	3	1	3	5	5
EU10+1	Hungary	42	25	-2	-3	-4	-5	0	-1	-2	-2
EU10+1	Latvia	47	24	3	5	7	6	0	1	3	3
EU10+1	Lithuania	49	19	1	2	5	4	3	3	5	5
EU10+1	Poland	51	18	1	1	2	4	0	2	2	4
EU10+1	Romania	36	28	2	2	1	3	2	1	0	1
EU10+1	Slovakia	48	22	0	-1	0	1	-1	-3	-1	-1
EU10+1	Slovenia	52	16	-1	-2	-3	-4	0	-2	-3	-3
CC	Iceland	65	8	0	2	1	0	0	1	0	-2
CC	Macedonia	27	32	1	1	0	-1	1	0	0	0
CC	Montenegro	32	30	-2	-1	2	2	-2	0	0	0
CC	Serbia	27	31	0	-1	-1	0	0	0	0	0
CC	Turkey	25	33	-2	0	0	1	-1	0	0	0
CC	Albania	21	34	0	-2	1	1	1	0	1	1
PCC	BiH	20	35	-3	-2	-3	-2	-1	0	-1	-1

Trends in Economy

The progress of the EU10+1 in Economy presents a positive narrative for the catch-up process and the EU as a whole: with the exception of Croatia and Slovenia, which register slowdown, and to a lesser extend Bulgaria and the Czech Republic, all the other countries register improvement in ranks and scores. The other two groups – the EU15+2 and the candidate countries show mixed results with stagnation or regress. The damage caused by the economic crisis is especially visible in Cyprus and Greece. Ireland registers continuous improvement, also seen in a more modest form in Portugal and Spain.

Trends by Economy Scores and Ranking

Group	Country	Economy Score 2015	Rank 2015	Score change vs 2014	Score change vs 2013	Score change vs 2012	Score change vs 2011	Rank change vs 2014	Rank change vs 2013	Rank change vs 2012	Rank change vs 2011
EU15+2	Austria	63	6	-2	-1	-1	1	0	1	1	2
EU15+2	Belgium	58	11	0	1	0	2	-1	-1	-1	1
EU15+2	Cyprus	43	25	-1	-6	-11	-13	-2	-7	-13	-12
EU15+2	Denmark	70	2	-1	1	0	1	0	1	0	1
EU15+2	Finland	62	7	-2	-1	-3	-2	-2	-1	-2	-2
EU15+2	France	58	10	0	-2	0	1	-1	-1	-1	1
EU15+2	Germany	66	5	2	1	2	4	2	0	1	2
EU15+2	Greece	31	32	-1	-1	-4	-8	0	2	-1	-5
EU15+2	Ireland	61	9	4	5	5	0	2	3	2	0
EU15+2	Italy	45	22	1	1	0	-1	2	1	-1	0
EU15+2	Luxembourg	74	1	-1	0	-1	-1	0	0	0	0
EU15+2	Malta	52	15	1	6	1	2	0	6	2	2
EU15+2	Netherlands	68	4	0	1	0	-1	0	0	0	-2
EU15+2	Portugal	44	24	2	2	-1	-4	2	2	-1	-5
EU15+2	Spain	50	19	2	1	-2	-4	1	-2	-4	-4
EU15+2	Sweden	69	3	-1	0	0	2	0	-1	0	1
EU15+2	UK	61	8	-1	-2	-1	-1	0	0	0	-2
EU10+1	Bulgaria	39	28	0	0	0	1	1	0	0	0
EU10+1	Croatia	40	27	1	-3	-4	-2	1	-2	-2	-2
EU10+1	Czech Republic	52	17	1	2	2	3	-3	-1	1	1
EU10+1	Estonia	57	13	1	3	5	5	0	0	3	3
EU10+1	Hungary	44	23	0	0	1	3	-1	1	3	3
EU10+1	Latvia	52	16	3	5	8	8	1	3	6	7
EU10+1	Lithuania	53	14	2	2	5	6	2	1	5	7
EU10+1	Poland	46	21	1	1	2	4	0	1	3	3
EU10+1	Romania	42	26	2	2	3	4	1	1	1	3
EU10+1	Slovakia	48	20	1	2	2	2	0	0	0	0
EU10+1	Slovenia	50	18	1	-2	-4	-5	-1	-4	-5	-4
CC	Iceland	57	12	1	1	4	-1	0	-1	2	-2
CC	Macedonia	36	30	1	1	1	3	1	1	0	3
CC	Montenegro	32	31	-10	-7	-3	-1	-6	-2	1	1
CC	Serbia	27	34	-4	-5	-6	-6	0	-2	-1	-3
CC	Turkey	38	29	0	2	1	3	1	1	0	1
CC	Albania	29	33	-2	-3	-2	2	0	0	1	2
PCC	BiH	26	35	-3	-5	0	-2	0	0	0	-1

Trends in Democracy

Democracy is another area where a group of EU10+1 countries steadily advance (the most recent setbacks in democracy such as Poland are yet to be registered and assessed). Estonia deserves a special mention, as although it now registers some deterioration in scores and ranking, it is the best ranking EU10+1 country and 13th among all 35 countries in the index. The glaring exception is Hungary, which has significant deterioration. Among the non-EU countries, Serbia provides a positive example of gradual progress. Unfortunately, the other Balkan states show setbacks: Turkey, BiH, Montenegro and Macedonia, though to a smaller extent.

Trends by Democracy Scores and Ranking

Group	Country	Democracy Score 2015	Rank 2015	Score change vs 2014	Score change vs 2013	Score change vs 2012	Score change vs 2011	Rank change vs 2014	Rank change vs 2013	Rank change vs 2012	Rank change vs 2011
EU15+2	Austria	64	9	0	-1	5	2	0	-3	1	0
EU15+2	Belgium	64	10	0	0	4	2	0	0	-1	0
EU15+2	Cyprus	46	24	2	-1	-4	-6	-1	-2	-2	-5
EU15+2	Denmark	73	2	-1	-3	2	-1	0	-1	1	0
EU15+2	Finland	73	3	0	-1	-3	1	0	0	-2	1
EU15+2	France	59	12	2	1	3	2	2	1	2	1
EU15+2	Germany	65	8	1	0	3	1	0	-1	0	0
EU15+2	Greece	40	26	3	5	1	-4	1	1	1	0
EU15+2	Ireland	65	7	1	1	3	-1	0	2	0	0
EU15+2	Italy	48	22	-2	4	1	1	0	1	1	2
EU15+2	Luxembourg	68	5	-2	-3	0	-1	0	0	0	0
EU15+2	Malta	59	14	0	3	5	3	-1	1	3	1
EU15+2	Netherlands	71	4	0	-1	2	-1	0	0	0	-1
EU15+2	Portugal	51	21	-1	-1	0	-2	-1	-2	-1	-3
EU15+2	Spain	55	17	2	1	1	0	0	-1	-2	-1
EU15+2	Sweden	74	1	0	-1	1	-1	0	1	1	0
EU15+2	UK	62	11	0	-1	4	3	0	0	1	0
EU10+1	Bulgaria	34	29	-2	-1	-2	0	-1	-1	0	-1
EU10+1	Croatia	42	25	1	0	-1	1	1	0	0	2
EU10+1	Czech Republic	56	15	0	-1	-1	-1	0	-1	-2	-1
EU10+1	Estonia	59	13	-1	0	0	1	-1	-1	-2	-1
EU10+1	Hungary	37	27	-5	-5	-8	-14	-2	-3	-3	-5
EU10+1	Latvia	47	23	4	7	6	3	1	3	3	2
EU10+1	Lithuania	52	18	1	3	2	1	3	3	3	2
EU10+1	Poland	56	16	3	3	3	5	2	2	2	5
EU10+1	Romania	36	28	1	2	0	5	1	1	0	1
EU10+1	Slovakia	52	19	0	2	0	4	0	1	0	4
EU10+1	Slovenia	52	20	-2	-3	-2	-3	-4	-3	-4	-3
CC	Iceland	65	6	-2	1	0	-1	0	2	0	0
CC	Macedonia	20	32	1	-3	-7	-6	2	0	0	0
CC	Montenegro	30	31	0	-3	-2	1	-1	-1	-1	-1
CC	Serbia	34	30	4	5	3	7	1	1	1	1
CC	Turkey	11	35	-2	-3	-8	-3	0	0	0	0
PCC	Albania	20	33	-3	0	0	4	-1	1	1	1
PCC	BiH	17	34	-4	-4	-6	-3	-1	-1	-1	-1

Trend in Quality of Life

The trends in Quality of Life show that the most dynamic countries are among the EU10+1 group as Estonia, the Czech Republic, Romania, Poland, Lithuania register improvement in several consecutive years. Hungary witnesses significant decline in the ranks and scores. Among the EU15+2 countries, those hit by the economic crisis experience Quality of Life score deterioration too, most notably Greece, which however still occupies the middle ground and 22nd place in 2015.

Trends by Quality of Life Scores and Ranking

Group	Country	Quality of Life Score 2015	Rank 2015	Score change vs 2014	Score change vs 2013	Score change vs 2012	Score change vs 2011	Rank change vs 2014	Rank change vs 2013	Rank change vs 2012	Rank change vs 2011
EU15+2	Austria	66	8	1	1	1	1	3	1	1	1
EU15+2	Belgium	66	7	0	0	0	1	0	0	0	3
EU15+2	Cyprus	55	15	0	-1	-3	-3	0	0	-2	-1
EU15+2	Denmark	66	9	0	0	0	0	-1	-1	-3	-3
EU15+2	Finland	70	3	0	-1	-1	0	0	-1	-1	0
EU15+2	France	64	11	-1	0	0	-1	-2	-1	-1	-3
EU15+2	Germany	68	4	-1	1	2	4	0	2	4	7
EU15+2	Greece	46	22	0	-3	-9	-10	-1	-2	-5	-5
EU15+2	Ireland	63	12	-1	-1	-1	-2	0	-1	-1	-5
EU15+2	Italy	55	16	0	0	-2	-3	0	0	-1	-3
EU15+2	Luxembourg	71	1	-1	1	1	0	0	3	2	0
EU15+2	Malta	51	19	0	-3	0	1	-1	-2	0	0
EU15+2	Netherlands	71	2	0	-1	-1	0	0	-1	-1	0
EU15+2	Portugal	48	21	2	2	1	0	1	2	2	0
EU15+2	Spain	52	17	0	0	-2	-5	0	1	1	-1
EU15+2	Sweden	67	6	-1	-3	-1	-1	-1	-3	-2	-1
EU15+2	UK	65	10	0	3	3	1	0	2	2	2
EU10+1	Bulgaria	30	30	0	1	0	-1	0	0	1	0
EU10+1	Croatia	44	26	1	2	3	0	0	0	-1	-1
EU10+1	Czech Republic	56	13	1	-1	1	4	1	0	3	5
EU10+1	Estonia	52	18	2	4	3	3	1	3	2	2
EU10+1	Hungary	44	25	0	0	-4	-3	0	0	-4	-3
EU10+1	Latvia	42	27	2	4	6	6	0	0	0	0
EU10+1	Lithuania	46	23	0	1	7	5	1	1	3	3
EU10+1	Poland	48	20	-1	0	1	3	0	2	4	3
EU10+1	Romania	30	29	0	2	-2	3	0	2	1	2
EU10+1	Slovakia	44	24	-1	-5	-3	-1	-1	-5	-2	0
EU10+1	Slovenia	56	14	-2	-1	-2	-1	-1	0	0	1
CC	Iceland	68	5	0	0	1	-2	1	0	0	-1
CC	Macedonia	23	33	0	0	-1	-2	0	0	-1	-1
CC	Montenegro	37	28	0	4	4	6	0	0	1	1
CC	Serbia	23	32	-2	-7	-10	-9	0	-3	-4	-4
CC	Turkey	27	31	0	3	5	5	0	1	2	3
CC	Albania	19	35	1	-2	-3	-4	0	0	-1	-2
PCC	BiH	21	34	-1	0	3	3	0	0	1	1

Trends in Governance

The EU15+2 group governance scores deteriorate, but this should not be that concerning, as their starting positions are very high. The majority of the EU10+1 countries perform very well – this is the case with Estonia, Latvia, Lithuania and Romania. It is worth noting that Hungary's scores deteriorate significantly.

Trends by Governance Scores and Ranking

Group	Country	Governance Score 2015	Rank 2015	Score change vs 2014	Score change vs 2013	Score change vs 2012	Score change vs 2011	Rank change vs 2014	Rank change vs 2013	Rank change vs 2012	Rank change vs 2011
EU15+2	Austria	70	6	0	1	-1	0	0	-1	-1	0
EU15+2	Belgium	62	11	-2	-2	-1	-1	0	-1	0	0
EU15+2	Cyprus	53	17	0	-2	-4	-3	2	0	-3	-1
EU15+2	Denmark	74	2	0	-2	-3	-3	1	-1	-1	-1
EU15+2	Finland	75	1	-1	2	1	1	1	2	2	2
EU15+2	France	58	12	-3	-2	-3	-2	0	0	0	1
EU15+2	Germany	69	8	2	2	2	2	0	-1	-1	-1
EU15+2	Greece	34	28	-1	-3	-4	-5	-1	-1	-1	-2
EU15+2	Ireland	67	9	2	2	4	2	0	-1	1	0
EU15+2	Italy	40	25	-1	-2	-3	-2	0	0	-2	-2
EU15+2	Luxembourg	71	5	0	3	-1	0	0	1	-1	-1
EU15+2	Malta	55	13	-4	-5	-5	-6	0	0	0	-1
EU15+2	Netherlands	72	4	0	0	2	1	0	0	2	1
EU15+2	Portugal	54	15	0	1	-1	-2	-1	3	2	0
EU15+2	Spain	52	19	-1	-3	-1	-1	-1	-4	-1	-1
EU15+2	Sweden	73	3	-2	-1	-1	-2	-2	-1	-1	-1
EU15+2	UK	66	10	1	2	0	1	0	-1	-1	0
EU10+1	Bulgaria	32	29	-1	-3	-3	-3	0	-1	-1	-1
EU10+1	Croatia	40	26	1	1	1	1	0	0	0	1
EU10+1	Czech Republic	54	16	1	-2	-3	-2	0	-2	-1	1
EU10+1	Estonia	55	14	2	3	5	5	1	5	5	5
EU10+1	Hungary	43	24	-3	-6	-3	-4	-2	-2	-2	-2
EU10+1	Latvia	46	23	1	2	6	6	1	0	2	2
EU10+1	Lithuania	47	22	1	4	5	5	1	2	2	2
EU10+1	Poland	52	20	1	1	2	4	0	0	0	0
EU10+1	Romania	35	27	2	2	2	2	1	2	2	2
EU10+1	Slovakia	48	21	0	-2	1	1	0	0	0	0
EU10+1	Slovenia	52	18	0	-2	-3	-5	-1	-2	-2	-4
CC	Iceland	69	7	1	7	3	3	0	4	1	1
CC	Macedonia	29	31	3	5	4	4	1	1	-1	1
CC	Montenegro	30	30	1	1	6	5	0	0	2	0
CC	Serbia	25	32	3	3	6	7	1	1	2	2
CC	Turkey	22	33	-4	-4	-3	-3	-2	-2	-2	-2
CC	Albania	17	34	5	2	-3	-3	1	1	-1	-1
PCC	BiH	16	35	-4	-3	-1	-1	-1	-1	0	0

The Index Clusters

The clusters in the index provide an alternative perspective to the "multi-speed" Europe. They are based on cluster analysis of the index score of the countries, forming six clusters for each category. Each cluster thus includes similar countries in the given category. The clusters are hierarchical with the best scoring countries in the 1st cluster and those with the worst scores in the 6th cluster.

The proximity of the clusters is also important, as some clusters tend be closer to each other and might form larger clusters. In the case of the current 2015 index, the clusters show a specific pattern where clusters are paired in couples – 1st and 2nd, 3rd and 4th, then 5th and 6th. But the 3rd to 6th clusters are closer to each other than to the 1st and 2nd clusters.

About the Cluster Analysis

The cluster analysis divides countries in the Catch-Up Index into groups based on shared characteristics. In addition, it also shows the proximity of the clusters to one another, i.e. some clusters are closer to each other and more distant from the rest. The clusters are also hierarchical, with better performing countries in clusters of higher order.

The findings of the cluster analysis reveal divisions in Europe along the lines of shared characteristics as identified by the indicators of the Catch-Up Index. This "Europe" is different from the one that is usually perceived to be divided along political lines and by legal arrangements.

The findings of the cluster analysis provide an alternative narrative about the divergence and convergence processes in Europe. It can be argued that countries within one cluster or those clusters in closer proximity are more likely to forge common approaches or policies even if they have disagreements in the short term. Thus the cluster analysis shows a more "organic Europe" - a snapshot of similarity and dissimilarity, based on characteristics of countries, not political agreements or legally bindings. This allows to better track the processes convergence and divergence on the continent.

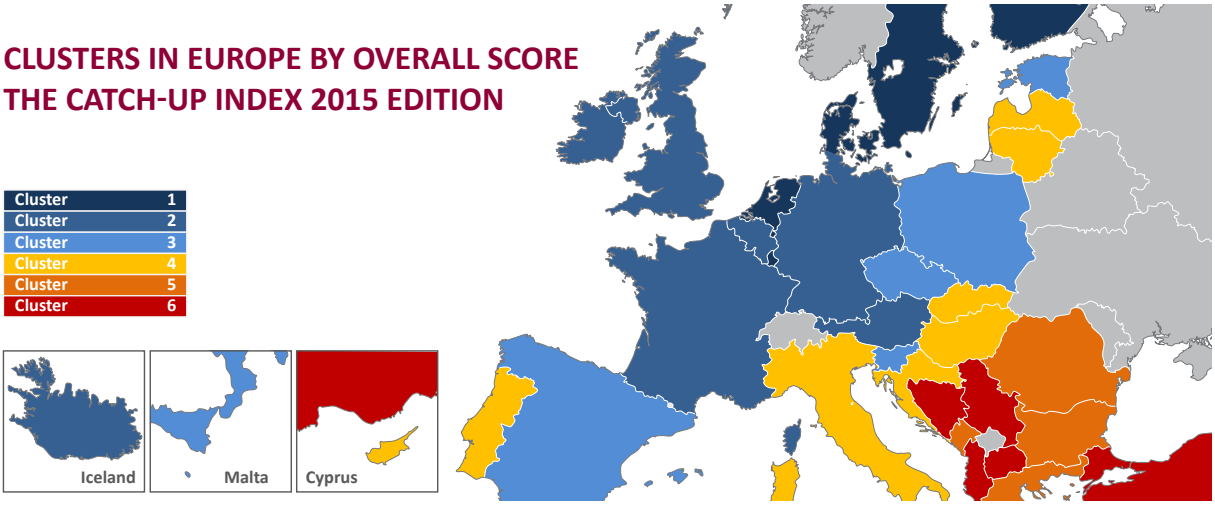
Clusters by Overall Score

Overall Score: Ranking and Clusters 2015				
Group	Country	Score	Rank	Cluster
EU15+2	Luxembourg	71	1	1
EU15+2	Sweden	71	2	
EU15+2	Denmark	71	3	
EU15+2	Netherlands	70	4	
EU15+2	Finland	70	5	
EU15+2	Germany	67	6	2
EU15+2	Austria	66	7	
CC	Iceland	65	8	
EU15+2	Ireland	64	9	
EU15+2	UK	63	10	
EU15+2	Belgium	62	11	
EU15+2	France	60	12	
EU10+1	Estonia	55	13	3
EU10+1	Czech Republic	55	14	
EU15+2	Malta	54	15	
EU10+1	Slovenia	52	16	
EU15+2	Spain	52	17	
EU10+1	Poland	51	18	
EU10+1	Lithuania	49	19	4
EU15+2	Cyprus	49	20	
EU15+2	Portugal	49	21	
EU10+1	Slovakia	48	22	
EU15+2	Italy	47	23	
EU10+1	Latvia	47	24	
EU10+1	Hungary	42	25	
EU10+1	Croatia	41	26	
EU15+2	Greece	38	27	5
EU10+1	Romania	36	28	
EU10+1	Bulgaria	34	29	
CC	Montenegro	32	30	
CC	Serbia	27	31	6
CC	Macedonia	27	32	
CC	Turkey	25	33	
CC	Albania	21	34	
PCC	BiH	20	35	

In the case of the Overall Score, one can see that the first clusters are made up nearly exclusively of the EU15+2 members. But already in the third cluster there are four out of six in total countries from the EU10+1 group.

The candidate countries are all (save for Iceland) in the last clusters.

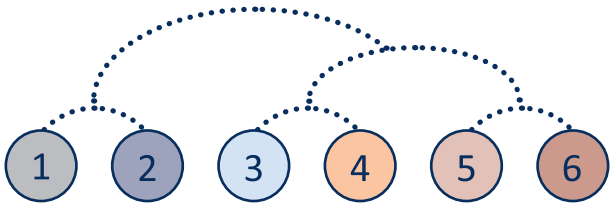
CLUSTERS IN EUROPE BY OVERALL SCORE
THE CATCH-UP INDEX 2015 EDITION



When the different clusters in each category are put on a map, certain geographic patterns become visible. The gradual shift to a North-South divide is apparent, which might be replacing the East-West divide. But this is not a straight line, but rather a diagonal across the continent.

The Scandinavian countries may be described as the vanguard, but the core is visible too with the three biggest EU members Germany, France and the UK. The third cluster is arranged across another diagonal line that stretches from Estonia in the Baltics, to Poland, the Czech Republic and Slovenia to Spain. The fourth cluster is formed again by a stretch that goes from Portugal, Italy, Croatia, Hungary, Slovenia and the rest of the Baltics – Lithuania and Latvia. This geographic pattern leaves the fifth and sixth clusters in the Balkans, including Romania.

Proximity and Hierarchy of Overall Scores Clusters

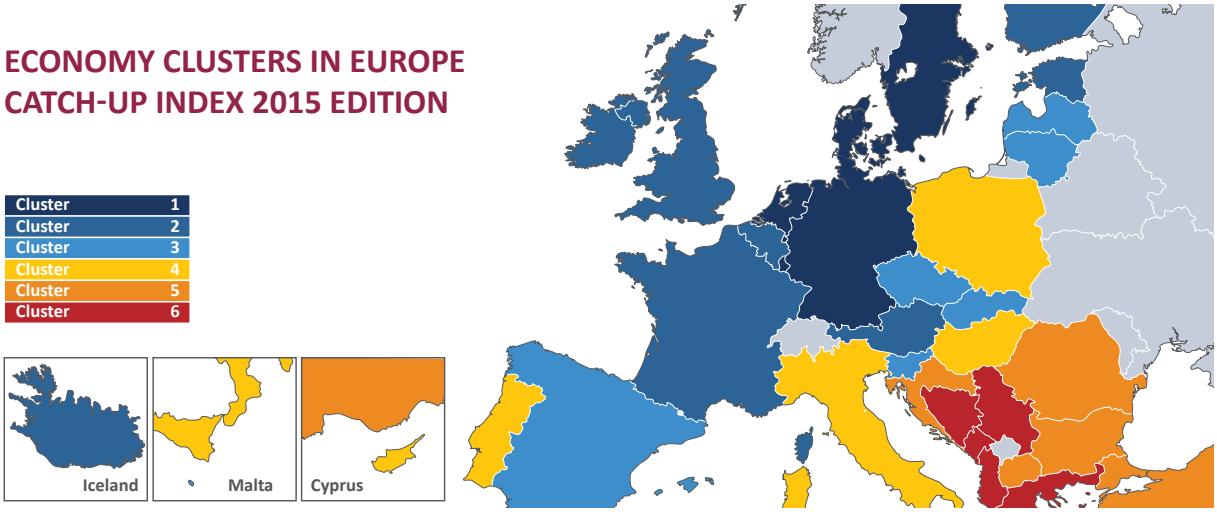


Economy Clusters

Economy Scores: Ranking and Clusters 2015				
Group	Country	Score	Rank	Cluster
EU15+2	Luxembourg	74	1	1
EU15+2	Denmark	70	2	
EU15+2	Sweden	69	3	
EU15+2	Netherlands	68	4	
EU15+2	Germany	66	5	
EU15+2	Austria	63	6	2
EU15+2	Finland	62	7	
EU15+2	UK	61	8	
EU15+2	Ireland	61	9	
EU15+2	France	58	10	
EU15+2	Belgium	58	11	
CC	Iceland	57	12	
EU10+1	Estonia	57	13	
EU10+1	Lithuania	53	14	3
EU15+2	Malta	52	15	
EU10+1	Latvia	52	16	
EU10+1	Czech Republic	52	17	
EU10+1	Slovenia	50	18	
EU15+2	Spain	50	19	
EU10+1	Slovakia	48	20	
EU10+1	Poland	46	21	4
EU15+2	Italy	45	22	
EU10+1	Hungary	44	23	
EU15+2	Portugal	44	24	
EU15+2	Cyprus	43	25	
EU10+1	Romania	42	26	5
EU10+1	Croatia	40	27	
EU10+1	Bulgaria	39	28	
CC	Turkey	38	29	
CC	Macedonia	36	30	
CC	Montenegro	32	31	6
EU15+2	Greece	31	32	
CC	Albania	29	33	
CC	Serbia	27	34	
PCC	BiH	26	35	

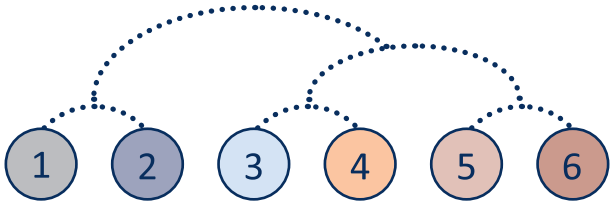
The clusters by scores in the Economy category show that there is small vanguard, including Germany which joined this first cluster only in 2015. The second cluster comes next with a number of Northern and West European countries, but Estonia of the EU10+1 group is among them.

ECONOMY CLUSTERS IN EUROPE
CATCH-UP INDEX 2015 EDITION



The map of the Economy clusters shows that the first and second clusters consist of North and Northwestern countries, followed by the third cluster in the South, Central Europe and the Baltics. The fourth, intermediate cluster is made up of a diverse group in Southern and Central Europe. The last two clusters include the “wider” Balkan region.

Proximity and Hierarchy of Economy Clusters



Quality of Life Clusters

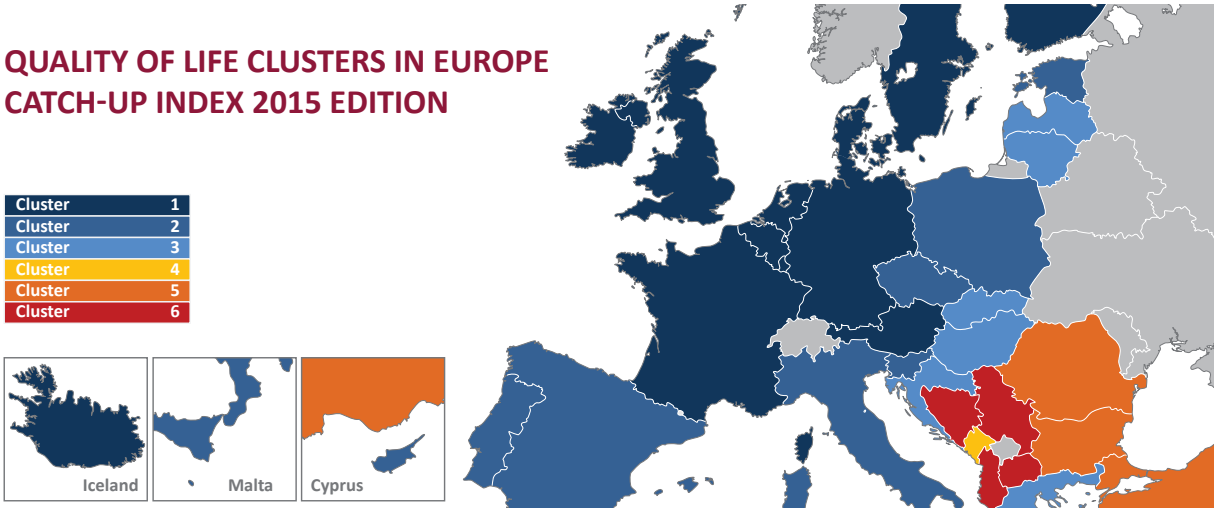
Quality of Life Scores: Ranking and Clusters 2015				
Group	Country	Score	Rank	Cluster
EU15+2	Luxembourg	71	1	1
EU15+2	Netherlands	71	2	
EU15+2	Finland	70	3	
EU15+2	Germany	68	4	
CC	Iceland	68	5	
EU15+2	Sweden	67	6	
EU15+2	Belgium	66	7	
EU15+2	Austria	66	8	
EU15+2	Denmark	66	9	
EU15+2	UK	65	10	
EU15+2	France	64	11	
EU15+2	Ireland	63	12	
EU10+1	Czech Republic	56	13	2
EU10+1	Slovenia	56	14	
EU15+2	Cyprus	55	15	
EU15+2	Italy	55	16	
EU15+2	Spain	52	17	
EU10+1	Estonia	52	18	
EU15+2	Malta	51	19	
EU10+1	Poland	48	20	
EU15+2	Portugal	48	21	
EU15+2	Greece	46	22	3
EU10+1	Lithuania	46	23	
EU10+1	Slovakia	44	24	
EU10+1	Hungary	44	25	
EU10+1	Croatia	44	26	
EU10+1	Latvia	42	27	
CC	Montenegro	37	28	4
EU10+1	Romania	30	29	5
EU10+1	Bulgaria	30	30	
CC	Turkey	27	31	
CC	Serbia	23	32	6
CC	Macedonia	23	33	
PCC	BiH	21	34	
CC	Albania	19	35	

There is a very positive perspective on the Quality of Life clusters as 21 out 35 countries are in the first two most advanced groups and there are 6 more in the third cluster.

This means that the majority of European countries enjoy quite decent level of public services, e.g. education, healthcare.

The EU10+1 countries, with the exception of Romania and Bulgaria, are better off and closing in on the rest of the EU. The Czech Republic and Slovenia are on a par with a number of the benchmark countries of the EU15+2 group.

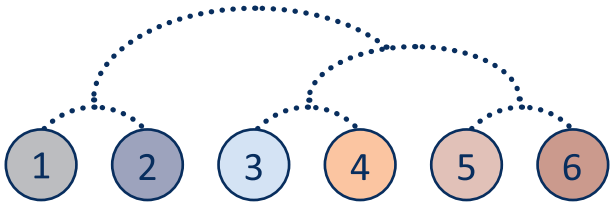
QUALITY OF LIFE CLUSTERS IN EUROPE
CATCH-UP INDEX 2015 EDITION



The Quality of Life category in the Catch-Up Index includes several indicators of consumption, education, health and healthcare, social issues such as inquality and long-term unemployment. The map of Quality of Life clusters shows that the better developed countries in “blue” dominate across the board – with 21 countries in the first and second cluster, another 6 in the 3rd cluster. This accounts for 27 out of 35 countries that enjoy very high to decent public services. Central Europe is peforming reasonably well too in comparative perspective.

There is only one country in the intermediate 4th cluster. The lower scoring countries are in Southeastern Europe, but there are several exceptions such as Greece, Croatia and Montegro that fare better.

Proximity and Hierarchy of Quality of Life Clusters

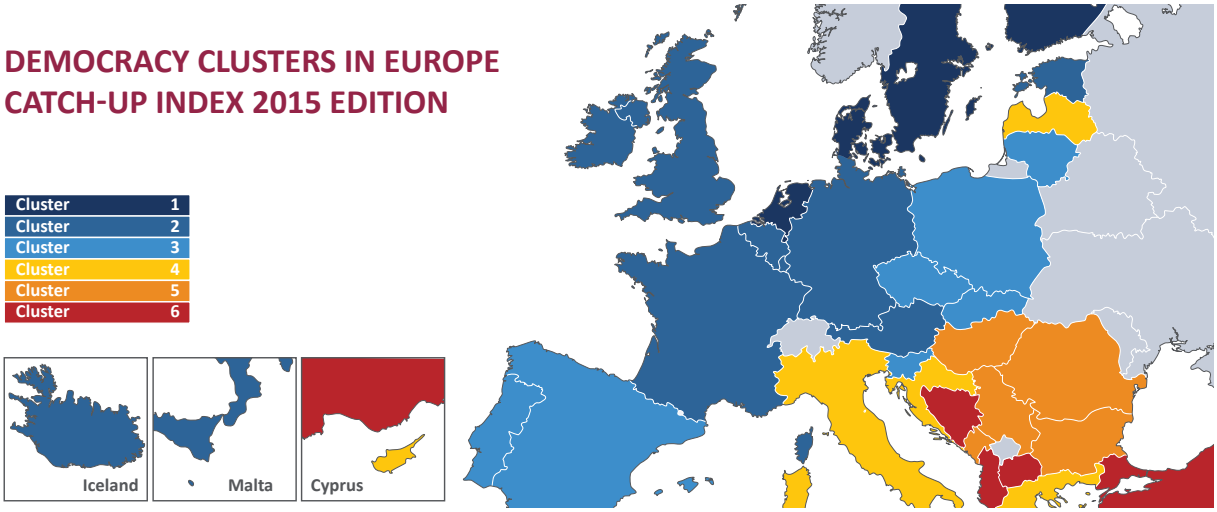


Democracy Clusters

Governance Scores: Ranking and Clusters 2015				
Group	Country	Score	Rank	Cluster
EU15+2	Finland	75	1	1
EU15+2	Denmark	74	2	
EU15+2	Sweden	73	3	
EU15+2	Netherlands	72	4	
EU15+2	Luxembourg	71	5	
EU15+2	Austria	70	6	
CC	Iceland	69	7	
EU15+2	Germany	69	8	
EU15+2	Ireland	67	9	
EU15+2	UK	66	10	
EU15+2	Belgium	62	11	2
EU15+2	France	58	12	
EU15+2	Malta	55	13	3
EU10+1	Estonia	55	14	
EU15+2	Portugal	54	15	
EU10+1	Czech Republic	54	16	
EU15+2	Cyprus	53	17	
EU10+1	Slovenia	52	18	
EU15+2	Spain	52	19	
EU10+1	Poland	52	20	
EU10+1	Slovakia	48	21	4
EU10+1	Lithuania	47	22	
EU10+1	Latvia	46	23	
EU10+1	Hungary	43	24	
EU15+2	Italy	40	25	
EU10+1	Croatia	40	26	
EU10+1	Romania	35	27	5
EU15+2	Greece	34	28	
EU10+1	Bulgaria	32	29	
CC	Montenegro	30	30	
CC	Macedonia	29	31	
CC	Serbia	25	32	6
CC	Turkey	22	33	
CC	Albania	17	34	
PCC	BiH	16	35	

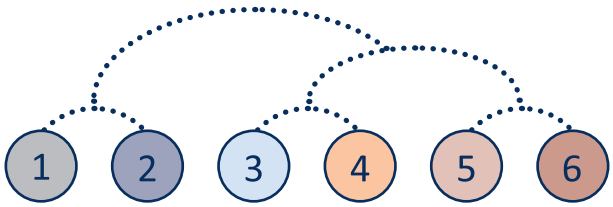
The best of the best, the first cluster in Democracy, is a small group of countries, followed by the larger second cluster. This one includes Estonia of the EU10+1. The third cluster includes more countries of this group, as, five of the seven countries are from CEE.

DEMOCRACY CLUSTERS IN EUROPE
CATCH-UP INDEX 2015 EDITION



Regional divisions are visible in the Democracy clusters too. The “blue” states with higher democracy scores are stretched to the north of the diagonal between Estonia through Poland and Austria to Spain and Portugal. The “wider” Balkans, together with Hungary this time, hold the last places in the democracy ranking.

Proximity and Hierarchy of Democracy Clusters

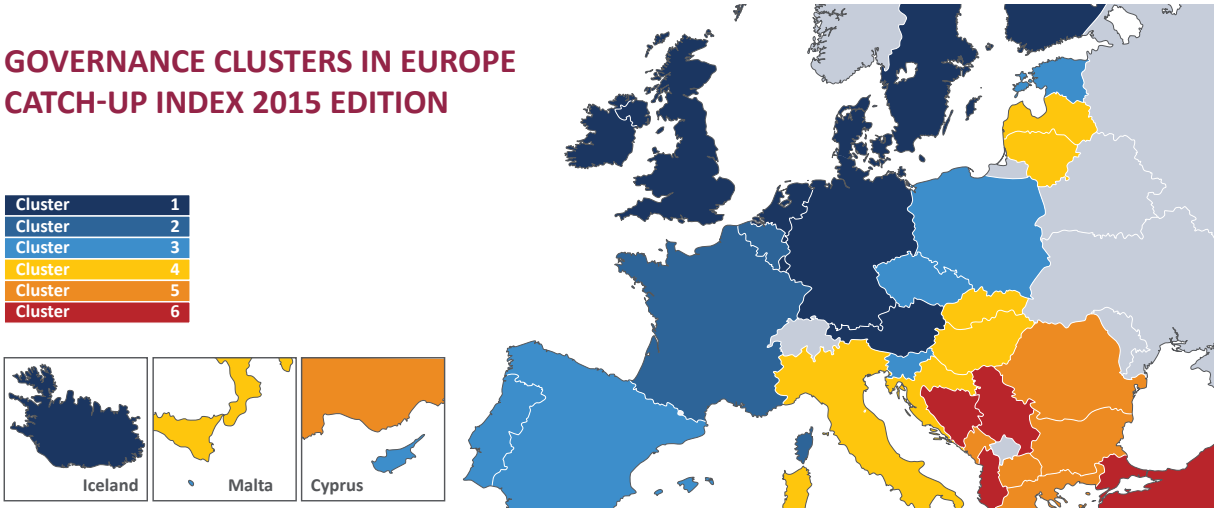


Governance Clusters

Governance Scores: Ranking and Clusters 2015				
Group	Country	Score	Rank	Cluster
EU15+2	Finland	70	1	1
EU15+2	Denmark	71	2	
EU15+2	Sweden	71	3	
EU15+2	Netherlands	70	4	
EU15+2	Luxembourg	71	5	
EU15+2	Austria	66	6	
CC	Iceland	65	7	
EU15+2	Germany	67	8	
EU15+2	Ireland	64	9	
EU15+2	UK	63	10	
EU15+2	Belgium	62	11	2
EU15+2	France	60	12	
EU15+2	Malta	54	13	3
EU10+1	Estonia	55	14	
EU15+2	Portugal	49	15	
EU10+1	Czech Republic	55	16	
EU15+2	Cyprus	49	17	
EU10+1	Slovenia	52	18	
EU15+2	Spain	52	19	
EU10+1	Poland	51	20	
EU10+1	Slovakia	48	21	4
EU10+1	Lithuania	49	22	
EU10+1	Latvia	47	23	
EU10+1	Hungary	42	24	
EU15+2	Italy	47	25	
EU10+1	Croatia	41	26	
EU10+1	Romania	36	27	5
EU15+2	Greece	38	28	
EU10+1	Bulgaria	34	29	
CC	Montenegro	32	30	
CC	Macedonia	27	31	
CC	Serbia	27	32	6
CC	Turkey	25	33	
CC	Albania	21	34	
PCC	BiH	20	35	

The Governance clusters of the Catch-Up Index for 2015 show that the majority of the EU15+2 countries are well-governed as they occupy the first and second cluster. The EU10+1 countries are mostly in the third and fourth clusters.

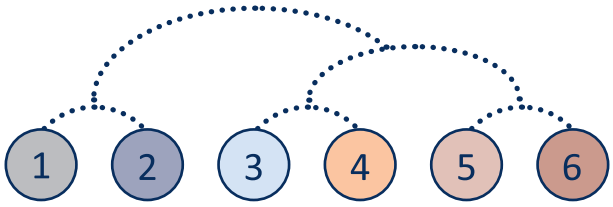
GOVERNANCE CLUSTERS IN EUROPE
CATCH-UP INDEX 2015 EDITION



The Governance clusters' map shows, similarly to the other clusters, that the best performing countries are in the Northwestern part of the continent and includes the Scandinavia, Ireland and UK, the Netherlands, Germany with its southern neighbor Austria. The second cluster consists only of France and Belgium, followed by a number of states – from Estonia in the North east to Portugal in the Southwest.

The geographic pattern is visible again as a belt of intermediary fourth cluster is composed of two Baltic and three Central European states and Italy. This leaves the Southeastern European states in the last two clusters.

Proximity and Hierarchy of Governance Clusters



Interplay between Factors: Comparing Performance across the Four Categories

Economy and Quality of Life

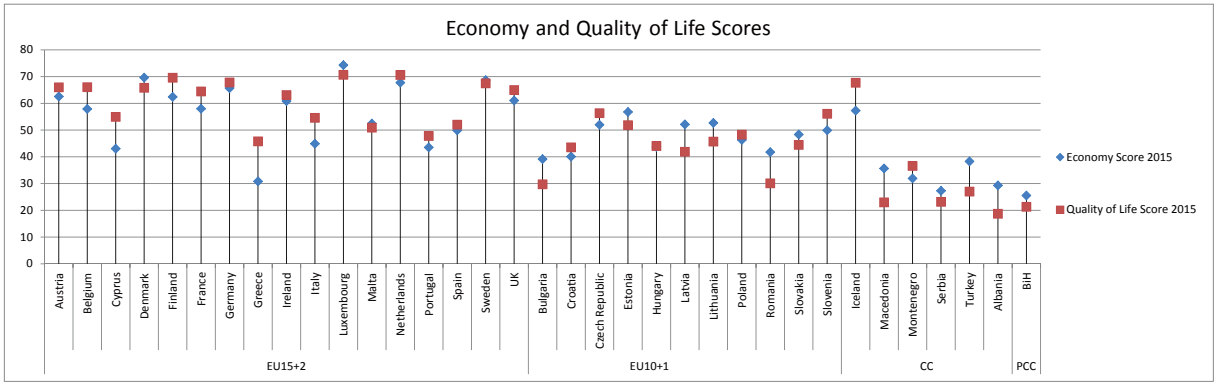
The standardized scores of the Catch-Up Index provide the opportunity to make comparisons between different categories and indicators of the countries and observe the interplay of different factors.

The comparison between the Economy and Quality of Life scores of the 35 countries in the index show that the respective scores for each country are nearly identical in most cases. This means that performance in one category is linked to performance in another category. But there are exceptions, which are telling too:

- Cyprus, Greece, Italy and Iceland have higher scores in Quality of Life than in Economy.

- Reversely, Bulgaria, Latvia, Romania, Macedonia, Turkey and Albania have higher Economy score than Quality of Life ones.

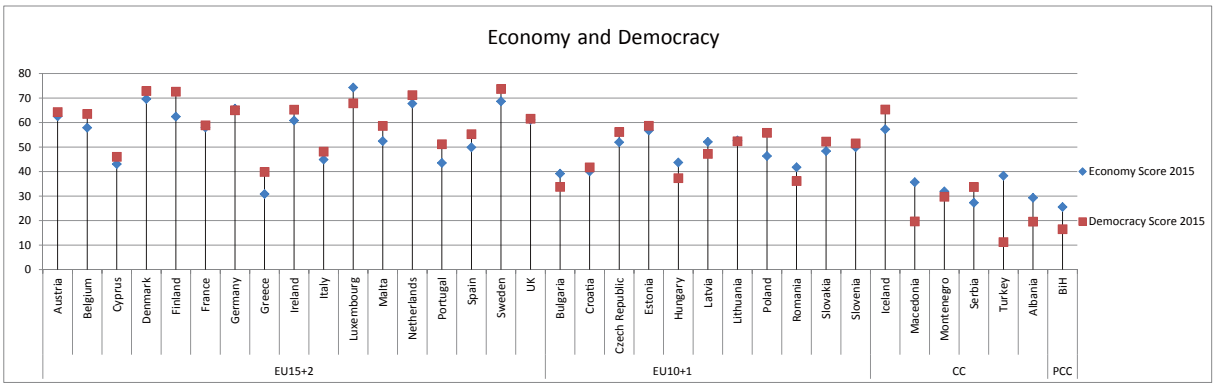
This seems to be a pattern, as the Western countries, heavily hit by the economic crisis, manage to keep relatively high standards of living while their counterparts from CEE and SEE cannot so far translate economic development into better public services.



Economy and Democracy

Lately, democracy has been under attack as a source of problems, as there are other models of economic development without the need for democracy.

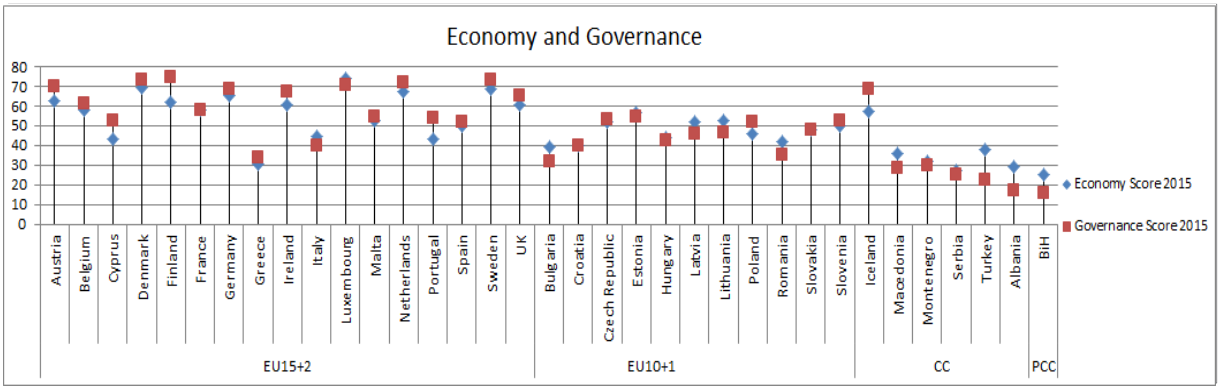
The Catch-Up Index results suggest that better democracy goes hand in hand with better economy, as in general democracy and economy scores are respectively identical for each country. There are several exceptions such as Macedonia, Albania, BiH and Turkey in particular, but both their democracy and economy scores remain lower than the ones of the EU15+2 group.



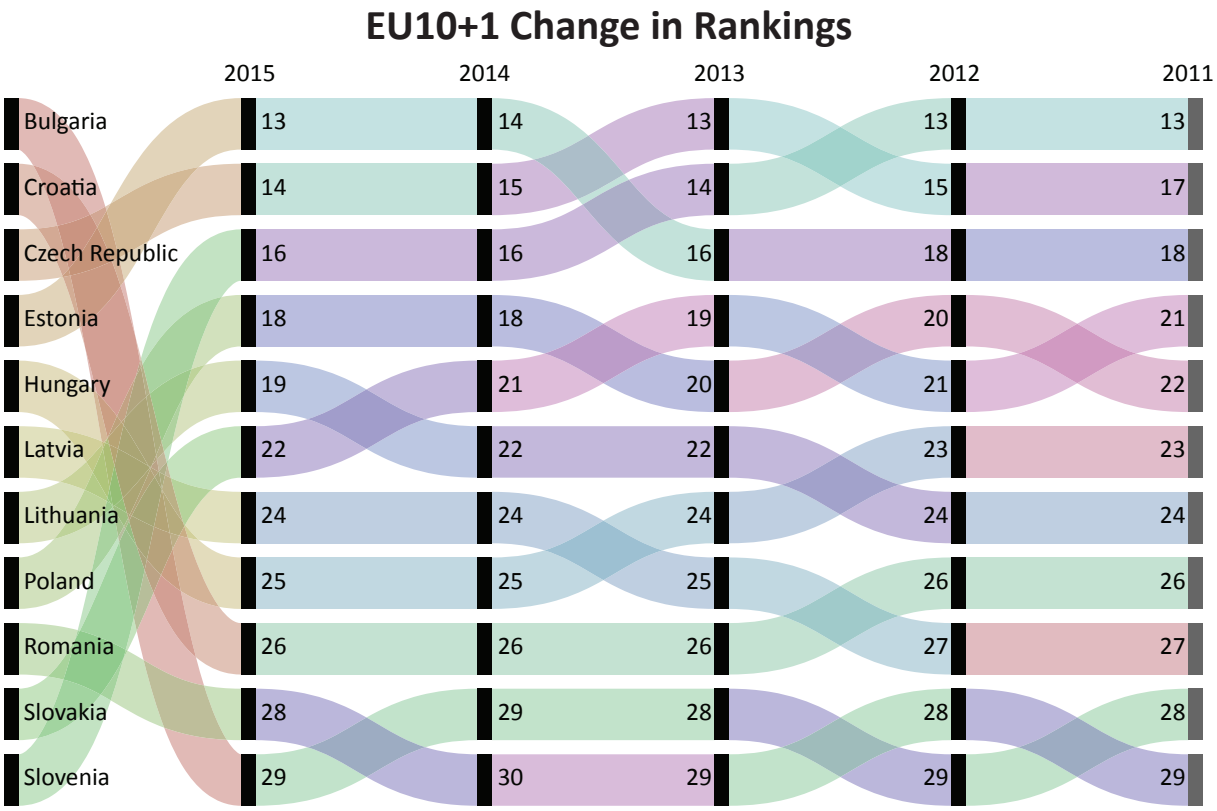
Economy and Governance

The economy and governance scores for each country are identical as far as the 35 countries in the index are concerned. This suggests there are close links between good governance and economic development.

There are some exceptions such as Macedonia, Turkey and Albania enjoying higher economy but lower governance score (Bulgaria and Latvia to a smaller extent), while Cyprus and Greece have higher governance than economy scores. But even in these cases, the differences are not substantial.



The Catching-up of the EU10+1 Countries



The Index in 2015 showed that the EU10+1 group had the largest concentration of countries that progress, i.e. these countries are catching up with the desired levels of development of the EU15+2. Some countries are doing it better that other, some progress more rapidly, others seem to stagnate or even regress.

The index provides two ways of assessing a country in the catching-up process – by its general progress or regress over the years and by its score and position in the ranking.

- The frontrunners are the three Baltic countries and Poland, demonstrating continuing advancement year after year.

- Estonia is the champion again this year, as it is both continuously progressing and is occupying the first place among its group and very enviable 13th position among the 35 countries in the index.

- The Czech Republic and Slovenia are two countries that have very high scores and positions, but there are red flags, as Slovenia loses ground and the Czech Republic is not convincing either in its performance.

- Hungary and Slovakia have been going down the ranking, which is especially troubling for Hungary, as it had a good starting position.

- Bulgaria and Romania are at the end of the row, but Romania deserves a praise, as it manages to show improvement in its scores and ranking, probably signaling an upward trend for pushing up from the bottom.

- Croatia, the most recent member in the group, has generally stagnated.

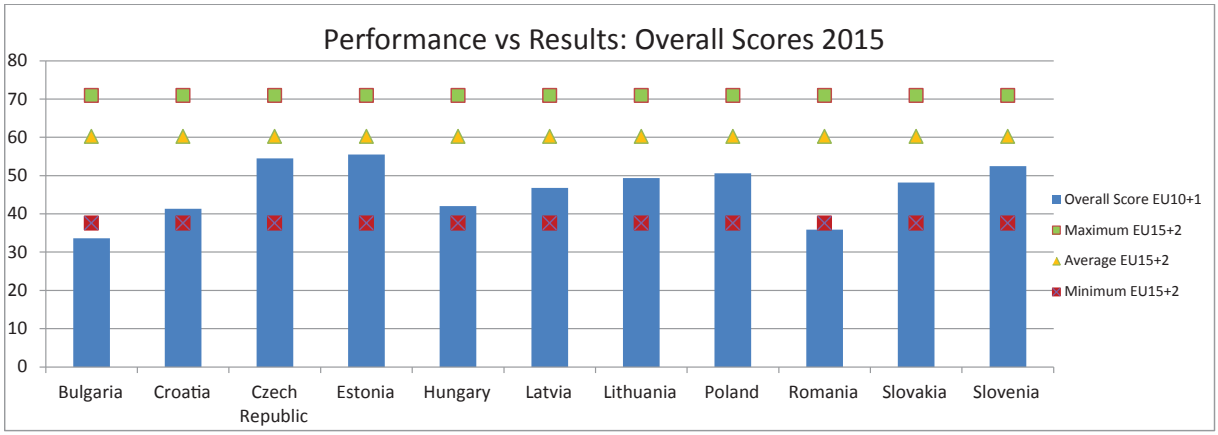
Catching-Up by Overall Score 2015											
Group	Country	Overall Score 2015	Rank 2015	Score change vs 2014	Score change vs 2013	Score change vs 2012	Score change vs 2011	Rank Change vs 2014	Rank change vs 2013	Rank change vs 2012	Rank change vs 2011
EU15+2	Maximum	71	1								
EU15+2	Average	60									
EU10+1	Estonia	55	13	1	2	3	3	1	3	5	5
EU10+1	Czech Republic	55	14	0	-1	0	1	1	-1	1	3
EU10+1	Slovenia	52	16	-1	-2	-3	-4	0	-2	-3	-3
EU10+1	Poland	51	18	1	1	2	4	0	2	2	4
EU10+1	Lithuania	49	19	1	2	5	4	3	3	5	5
EU10+1	Slovakia	48	22	0	-1	0	1	-1	-3	-1	-1
EU10+1	Latvia	47	24	3	5	7	6	0	1	3	3
EU10+1	Hungary	42	25	-2	-3	-4	-5	0	-1	-2	-2
EU10+1	Croatia	41	26	1	0	0	0	0	0	0	0
EU15+2	Minimum	38	27								
EU10+1	Romania	36	28	2	2	1	3	2	1	0	1
EU10+1	Bulgaria	34	29	-1	-1	-1	-1	0	-1	0	-1

There are certain geographic patters, as the countries in the North – in the Baltics - perform generally better than those in the South – in the Balkans. However, the index shows that changes happen over time and countries can shape their performance and Romania offers a case for cautious optimism.

The overall scores and ranking show that the countries of the EU10+1 group are already quite diverse in their performance. Their positions vary from the very good 13th and 14th position to the 29th on a ranking scale from 1 to 35.

Getting Close, but Not Quite There Yet

The catching-up of the EU10+1 countries can be assessed at the backdrop of the average score of the EU15+1 as well as best and worst performers. Measured by such yardsticks, it can be seen that none of the EU10+1 reaches the average benchmark, although several countries – Estonia, the Czech Republic, Slovenia, etc. – come close. But all the EU10+1 countries are far from the maximum benchmark – the best performers in the reference group. They are all closing in on or exceeding the minimal scores, but this is not special achievement as this is a low threshold.



Pride and Frustration: The International Comparison

The Catch-Up Index includes only the EU Member States and the candidate countries. This selection is often a source of frustration as the catching-up is assessed against the best performing countries in the world. A comparison between several EU Member States and other countries in key economic, social and educational indicators shows that the better performers of the EU10+1 group such as Estonia and the Czech Republic can hold ground on their own and even excel, which gives hopes for those lagging behind.

Comparison of key indicators: EU and selected countries

Indicator	GDP per capita	Gini Index	Life expectancy (2013)	Under-five mortality	PISA education score	Homicide rate
Country	Higher is better	Lower is better	Higher is better	Lower is better	Higher is better	Lower is better
Denmark	$ 44 916	29.1	80	3.5	500	0.8
Spain	$ 33 211	35.9	83	4.2	484	0.8
Estonia	$ 26 946	33.2	77	3.4	521	5
Czech Republic	$ 30 407	26.1	78	3.6	499	1
Bulgaria	$ 16 617	36.0	75	11.6	439	1.9
Romania	$ 19 401	27.3	74	12	445	1.7
Serbia	$ 12 660	38.7	75	6.6	449	1.2
China	$ 13 206	37.0	75	12.7	536	1
Russia	$ 25 636	41.6	69	10.1	482	9.2
USA	$ 54 630	41.1	79	6.9	481	4.7

GDP per capita, PPP (current international $), World Bank 2014 or latest available

GINI Index (World bank estimate), 2013 or latest available

Life expectancy at birth, WHO 2013

Under-five mortality rate, WHO 2013

PISA edication assessment, OEDC, 2012 (Schanghai - China for Chaina)

International homicide rate, United Nations Office of Drugs and Crime, 2012

The Economy Category Explained: Methodology Notes

The Economy category measures the economic performance and potential of the countries in the index. Each of the four categories in the Catch Up Index is ascribed equal importance in terms of calculating a country's overall score.

The Economy category is measured through a set of nine indicators, each of which captures a different aspect of economic performance. Some indicators gauge more than one aspect of economic performance. The metrics of the indicators are based on 14 sub-indicators of varying weightings. The specific indicators and the weightings assigned to the sub-indicators reflect the unique model of the Catch Up Index.

The raw data used for the indicators (e.g. GDP per capita or other composite indicator scores or coefficients) is converted into a Catch-Up Index score on a scale of 0 to 100 (lowest to highest) to allow for a standardized score that can be compared across countries or categories and indicators. Each of the indicators has different weight assigned to it, according to its importance in the Catch Up Index model.

GDP per Capita (PPS with EU27=100 basis, Eurostat) remains the most important indicator of economic activity and is assigned 25% weight in the total Economy category.

Economy Indicators	Sub-indicators	Weight
GDP per capita	GDP per capita in PPS, EU27=100	25% (0,25)
Government debt	General government debt (% of GDP)	13% (0,125)
Credit ratings	Sovereign credit ratings	13% (0,125)
Employment	Employment rate %	8% (0,083)
Energy Intensity	Energy intensity of the economy	8% (0,083)
Information Society	Information and Communication Technology	8% (0,083)
Research and Development	Patents granted by USPTO per capita	4% (0,042)
	High-tech exports as % of manufactured exports	4% (0,042)
Market development	Doing Business rank	4% (0,042)
	Economic Freedom score	4% (0,042)
Transport infrastructure	Motorways per area 1000 km2	2% (0,021)
	Motorways per 100,000 inhabitants	2% (0,021)
	Other roads per 1000 km2	2% (0,021)
	Other roads per 100,000 inhabitants	2% (0,021)

Government Debt, measured as a % of GDP, is second in importance with 12.5%. The global economic calamities of recent years, and especially the ongoing debt crisis in Europe, have clearly demonstrated the critical importance of government debt as a factor for the economic vitality of a country.

The **Sovereign Credit Ratings** – or creditworthiness and level of investment risk - of a country are also attributed high importance in the index, with a 12.5% weight. The index uses a composite, rescaled score of the ratings of the three major agencies (Fitch, Moody's and Standard & Poor's).

Employment, with a weight of 8%, is a measure of an economy's potential to generate jobs and integrate as much as possible of the labor force in the labor market; this is measured through the share of working-age people in employment.

Energy Intensity, also ascribed an 8% weighting, is a measure of an economy's energy efficiency, calculating energy consumption divided by GDP as kilogram of oil equivalent per €1000. Energy intensity is also an important measure of an economy's competitiveness, because high energy inefficiency incurs more costs in production and services.

Research and Development, again with a weight of 8%, is a measure of the level of development and the "quality" of contemporary economies, including their competiveness. The index uses two sub-indicators. The first is the number of patents registered from a country with the United States Patent and Trademark Office (USPTO) annually on a per capita basis. The second indicator is the share of high-tech exports in a country's manufactured exports.

The **Market Development** indicator (also 8%) is the composite score of two sub-indicators – the World Bank's Ease of Doing Business ranking and the Heritage Foundation/Wall Street Journal Index of Economic Freedom. The latter defines the highest form of economic freedom as "an absolute right of property ownership, fully realized freedoms of movement for labor, capital, and goods, and an absolute absence of coercion or constraint of economic liberty beyond the extent necessary for citizens to protect and maintain liberty itself."

The **Transport Infrastructure Indicator** (8%) is a measure of a country's economic development and its potential for economic activity. The index uses four sub-indicators, based on calculating coefficients of motorways and other roads on a per capita and country area basis.

The Ingredients of Democracy: Methodology Notes

Catching up in Democracy is essential for the post-communist member states of the EU, particularly given that the Copenhagen accession criteria for EU membership primarily focused on democracy. But although EU membership has often been perceived as a watershed in the political transition of the EU10 group, or even the end of that transition, it now appears that the newer members may not have achieved parity with more developed European nations in their progress in building democratic institutions and societies.

The Catch-Up Index was designed to analyse several aspects of democracy that are of particular significance for the newer member states, and those that are aspiring to be.

The Democracy category has equal weighting with the other three categories in the Catch-Up Index (Economy, Quality of Life and Governance). This category is measured through a set of seven indicators, which use nine sub-indicators. The raw data drawn from opinion polls and other composite indicator scores are converted into the Catch-Up Index score on a scale of 0 to 100 (lowest to highest) to give a standardized score that allows for comparison across countries, categories and indicators. Each of the indicators has a different weight assigned to it according to its importance in the index model.

Democracy Indicators	Sub-indicators	Weight
Democracy Indices	Freedom House score Freedom in the World	20% (0,195)
	Economist Intelligence Unit Democracy Index	20% (0,195)
Media Freedom	Freedom House Freedom of the Press score	10% (0,98)
	Reporters without Borders Press Freedom Index	10% (0,98)
Satisfaction with democracy	Satisfaction with democracy %	10% (0,98)
Trust in People	Trust in people	10% (0,98)
Voice and Accountability	Voice and Accountability - WGI	10% (0,98)
Human Rights	Disrespect for human rights by Global Peace Index	10% (0,98)
E-participation	E-participation index	2% (0,024)

The first indicator used to measure democracy is composed of two established **composite democracy indexes** – those of **Freedom House** and the **Economist Intelligence Unit (EIU)**. Each was attributed very high importance in the Democracy category with 20% weight (or 40% for both) because they assess the overall democracy in a country. The Freedom of the World index was used from Freedom House, rather than the specialized post-communist states' Nations in Transit index, because it does not encompass the Western European states. The EIU Democracy Index was used because its scores are more nuanced than the Freedom of the World scores, which allows for better distinction between the quality of democracy in the European states.

Media Freedom was attributed special attention in the Catch-Up Index because the media is essential to the democratic process – especially in the post-communist states. The Catch-Up Index relies again on two established media freedom indexes – of Freedom House and of Reporters without Borders. Each is assigned 10% weight, giving the Media Freedom indicator a 20% overall weight.

Satisfaction with Democracy measures the attitude of citizens towards the democratic systems of governance in their countries. This is one of the only two indicators (along with Trust in People) that relies on public opinion surveys (in this case the main source is Eurobarometer), and the scores are based on the proportion of citizens who approve their countries' democratic systems.

Trust in People measures the level of people's trust of those who are outside of their immediate family or close friends. Literature abounds on the importance of trust for democracy - above all Francis Fukuyama's "Trust",– or economy and the successful organization of society. In this case, the Catch-Up Index employs the measure of Trust in People as a proxy for civil society development, given the limitations of available data on similar indicators for all the countries in the index.

Voice and Accountability, with a weight of 10%, is a composite indicator of the World Bank's World Governance Indicators (WGI). This includes 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. The WGI scores also use World Bank assessments and reports that are not publicly available.

Respect for Human Rights is also deemed essential for a functioning democracy and carries a weight of 10%. The scores are based on Global Peace Index "Disrespect for human rights" indicator.

E-participation (2%) measures the level of participation in decision-making, governance or similar activities that is enabled by Information and Communication Technologies. For example, the facilitation of citizens' political participation through internet or cellular technologies within the broader "e-democracy" concept. Facebook advocacy or the "twitter revolutions" offer specific examples of similar phenomena.

Quality of Life: Methodology Notes

Quality of Life is the category most influenced by the "bottom-up" approach in constructing the index. The metrics of the category have been designed to establish how wealthy people are and to what degree social issues affect them, such as income inequality, risk of poverty and long-term unemployment. The indicators also aim to assess levels of access to higher education and the quality of education available, as well as whether people are living longer, healthier lives with access to good quality healthcare services.

These criteria are prerequisites for individuals to have good quality of life and for the "health" and successful development of society at large. It does not come as a surprise that the majority of the citizens of the newer member states (and the candidates) associate EU membership above all with improved quality of life, at least closer to that of their more established EU counterparts.

The raw data used for the indicators (e.g. life expectancy in years, and other composite indicator scores or coefficients) are converted into the standardized Catch-Up Index score, on a scale from 0 to 100 (lowest to highest), to allow for comparison across countries, categories and indicators. As was the case in the other categories, each of the indicators has a different weight assigned to it, reflecting its importance in the Catch-Up Index model.

Quality of Life Indicators	Sub-indicators	Weight
Welfare of consumers	Actual individual consumption with EU27=100	20% (0,2)
Social issues	Inequality - Gini coefficient	7% (0,067)
	Relative median at-risk-of-poverty gap (%)	7% (0,067)
	Long-term unemployment rate (%)	7% (0,067)
Education	Share (%) of early school leavers	5% (0,05)
	Share of population (%) with university degree	5% (0,05)
	PISA* score in reading literacy	3% (0,033)
	PISA score mathematical literacy	3% (0,033)
	PISA score in scientific literacy	3% (0,033)
Health	Healthy life expectancy at birth in years	5% (0,05)
	Life expectancy in years	5% (0,05)
	Infant mortality by age of 5	5% (0,05)
	EuroHealth Consumer Index	5% (0,05)
Human Development	Human Development Index (UN)	20% (0,2)
*** Programme for International Student Assessment (OECD).**		

Welfare of Consumers is attributed 20% weight in the category. It is based on data from Eurostat's Actual Individual Consumption dataset, which is calculated on EU27=100 basis (rescaling each country's data as a fraction of the EU mean).

The **Social Issues** indicator, with a total weight of 21%, comprises three sub-indicators that measure different aspects of social problems in a society. The first assesses social inequality using the Gini coefficient – the greater the inequality, the lower a country's score in the index. The second sub-indicator is based on Eurostat's relative median at-risk-of-poverty gap indicator. The third sub-indicator measures long-term unemployment in society, which signals the existence of more deep-seated social problems that the basic unemployment rate.

The **Education** indicator has been designed to reflect primarily the quality of education, rather than the quantity, given that the GDP share of education or the number of teachers or students do not always correspond to good outcomes. This is especially valid with regard to the new member states, where often inefficient and unreformed systems produce poor results, notwithstanding the funds or manpower channeled into them.

As is the case with many of the index indicators, their data can also be useful in assessing other aspects of the same category or, in this case, other categories. For example, as well as being a key indicator for Quality of life, education is relevant in assessing economic potential, democracy and good governance. The sub-indicator on early school-leavers assesses the share of young people giving up education and training prematurely; this may also help to gauge broader social problems. The second sub-indicator is the share of the population that hold university degrees. The next three education-related sub-indicators are based on the results of the Organisation for Economic Co-operation and Development's **Programme for International Student Assessment (PISA)**. The PISA scores go beyond the performance of high-school students and survey the broader state of a country's education sector, for example qualification levels of teachers and the quality of universities.

The **Health** indicator is likewise designed to focus more on the outcomes than on less indicative criteria such as share of GDP or the number of medical workers. One sub-indicator is life expectancy, measuring how many years a person is expected to live, while another is healthy life expectancy, specifically taking into account life without major illness. The indicator for infant mortality is also indicative of the broader state of health services or social services in a country (or even the state of society more broadly) because it assesses the likelihood of children surviving to the age to 5. The fourth sub-indicator is a composite of the EuroHealth Consumer Index by the Health Consumer Powerhouse, which measures the quality of healthcare systems in a country (including by outcome).

The United Nations' **Human Development Index** is a composite index measuring life expectancy, literacy, education and standards of living for countries worldwide. It has similar dimensions to the Catch-Up Index, but includes additional data and methodology, which complements the other indicators but does not overlap with them.

Governance Category Explained: Methodology Notes

The newer and aspiring members typically perceive established EU member states to be well-governed, politically stable, have low levels of corruption, effective governance, a successful rule of law, and an absence of substantial tensions, conflicts and crime. Indeed, from a wider perspective this impression is accurate. The EU is truly an oasis of stable and well-governed states by comparison with some of the more unstable or failing states in other parts of the world. The EU is very much geared toward instilling "good governance" through its common institutions and the *acquis communautaire.*

But comparisons between EU members and aspiring candidates reveal differences even among relatively homogenous groups. Some of these differences are made strongly apparent, as in the case of the EU's monitoring of the progress of members Bulgaria and Romania in fighting corruption, organized crime and judicial reform, and the conditionality imposed on candidates.

The Catch-Up Index measures the quality of governance in a country through seven indicators based on ten sub-indicators.

Governance Indicators	Sub-indicators	Weight
Corruption	Corruption Perceptions Index - Transparency International	8% (0,08)
	Control of Corruption - World Governance Indicators	8% (0,08)
Political stability	Political instability by Economist Intelligence Unit	8% (0,08)
	Political Stability and Absence of Violence - World Governance Indicators	8% (0,08)
Governement effectiveness	Governement eEffectiveness - World Governance Indicators	16% (0,16)
Regulatory quality	Regulatory quality - World Governance Indicators	16% (0,16)
Rule of law	Rule of Law – World Governance Indicators	16% (0,16)
Conflict, tensions and crime	Conflicts and tensions in the country - selected Global Peace Index indicators	8% (0,08)
	Homicide rates per 100,000 population	8% (0,08)
E-government	E-government development index	4% (0,04)

The **Corruption** indicator is essential for gauging the quality of governance because corruption affects all aspects of the decision-making and implementation process. The Corruption indicator has a weighting of 16% in the Governance category, divided between two sub-indicators – Transparency International's Corruption Perceptions Index and the Control of Corruption dimension of the World Bank's World Governance Indicators. The first indicator measures public perceptions of the level of corruption in a country. The second indicator as defined by its authors "captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests."

The second indicator measures a country's level of **Political stability**, as in the threat of government destabilization through social unrest or unconstitutional or violent means through two sub-indicators. These are the Economist Intelligence Unit's Political Instability Index and the Political Stability and Absence of Violence dimension of the World Bank's World Governance Indicators. The EIU scores "show the level of threat posed to governments by social protest." The World Bank indicator measures "the perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including domestic violence and terrorism." The level of political stability indicates any flaws in governance. Although this indicator also relates to democracy – in terms of the channeling of discontent through the process of representation and problem solving – political stability is more of a measure of governance. The indicator's weight is 16% divided between the two sub-indicators.

Government effectiveness is an indicator of whether governance is being conducted well; the World Bank states that it "captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies." Government effectiveness also has a weighting of 16% in the Governance category.

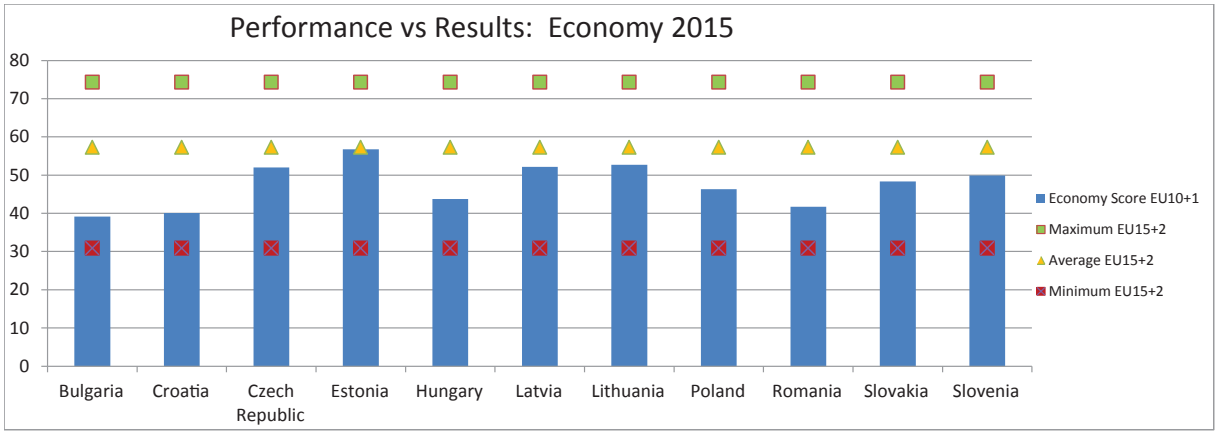
Regulatory quality is another World Governance Indicators that "captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development." This indicator too has a 16% weighting.

Rule of law is essential for good governance, as the newest EU members and candidates have found out the hard way. The indicator is again based on the World Governance Indicators, which state that it " captures perceptions of the extent to which agents 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, as well as the likelihood of crime and violence."

Conflict, tensions and crime is a composite indicator, based on two sub-indicators relating to a country's crime levels and conflicts and tensions. The conflicts and tensions sub-indicator is based on selected data from the Global Peace Index (Institute for Economics and Peace/ Economist Intelligence Unit). The homicide rate on a per capita basis serves as a proxy for measuring the crime levels in a country, because data pertaining to other reported crimes is less easily comparable (different definitions or practices for registering crimes) or country data is unavailable. The indicator's weight of 16% is divided between the two sub-indicators.

The **E-government** indicator is based on the UN's E-government surveys and scores. It is included in the index because it is a measure of government efficiency and delivery of services to citizens, and because it facilitates transparency and accountability as the world grows more connected. Moreover, e-government indicates the level of development of contemporary societies. As the UN survey has identified, the scores comprise two basic aspects of e-government, 'government to citizen' (G to C) and 'government to government' (G to G), with a smaller element of 'government to business' interactions. Given that e-government is indicative of many aspects of good governance, but not indispensable, it is ascribed a weight of 4%.

Catching-Up in Economy



The catching-up process is most successful in the Economy category and the results of individual countries are indicative.

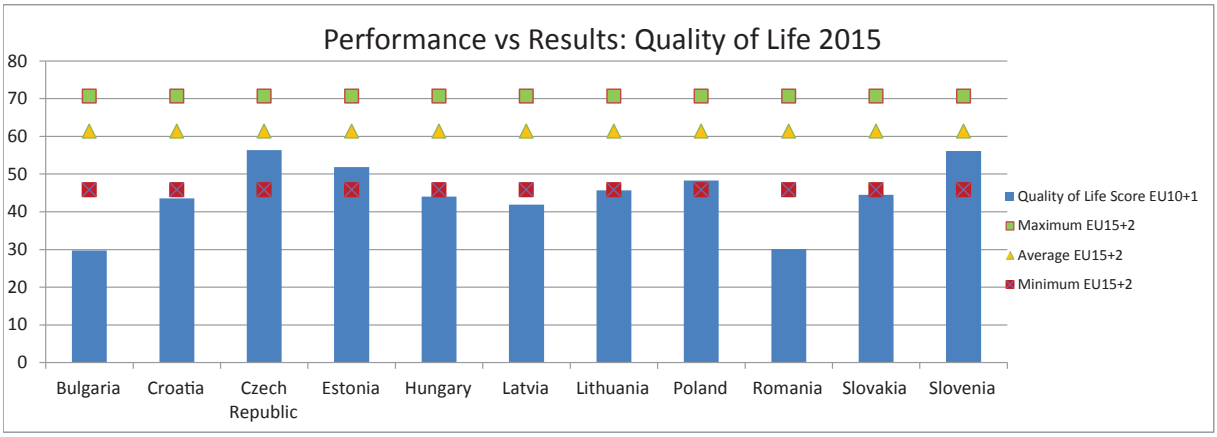
In fact, nearly all of them register very good or decent progress over the years. Only Slovenia and Croatia register continuous drops, to a lesser extend the Czech Republic. "Stagnation" can be registered in the case of Bulgaria both in terms of scores and ranks and in the case of Slovakia in terms of position, but not in scores as they increase.

There is certain North-South division within the group, with central European countries in the center.

Catching-Up in Economy 2015											
Group	Country	Economy Score 2015	Rank 2015	Score change vs 2014	Score change vs 2013	Score change vs 2012	Score change vs 2011	Rank change vs 2014	Rank change vs 2013	Rank change vs 2012	Rank change vs 2011
EU15+2	Maximum	74	1								
EU15+2	Average	57									
EU10+1	Estonia	57	13	1	3	5	5	0	0	3	3
EU10+1	Lithuania	53	14	2	2	5	6	2	1	5	7
EU10+1	Latvia	52	16	3	5	8	8	1	3	6	7
EU10+1	Czech Republic	52	17	1	2	2	3	-3	-1	1	1
EU10+1	Slovenia	50	18	1	-2	-4	-5	-1	-4	-5	-4
EU10+1	Slovakia	48	20	1	2	2	2	0	0	0	0
EU10+1	Poland	46	21	1	1	2	4	0	1	3	3
EU10+1	Hungary	44	23	0	0	1	3	-1	1	3	3
EU10+1	Romania	42	26	2	2	3	4	1	1	1	3
EU10+1	Croatia	40	27	1	-3	-4	-2	1	-2	-2	-2
EU10+1	Bulgaria	39	28	0	0	0	1	1	0	0	0
EU15+2	Minimum	31	32								

The index shows that there is one country that catches up with the average score of the reference group – Estonia – and there are other countries that follow closely. Lithuania, Latvia, the Czech Republic and Slovenia have high scores near the average and way above the minimal score. But there is still no country that comes close to the best performers of the EU15+2 group.

Catching-Up in Quality of Life



Quality of Life is arguably the most challenging category in the catching-up process for the EU10+1 states. This poses a serious problem, as the citizens of these countries expect improvement most of all in this area. Frustration from insufficient catching up with the better off countries further West might be projected onto the EU membership or democracy as the system of governance.

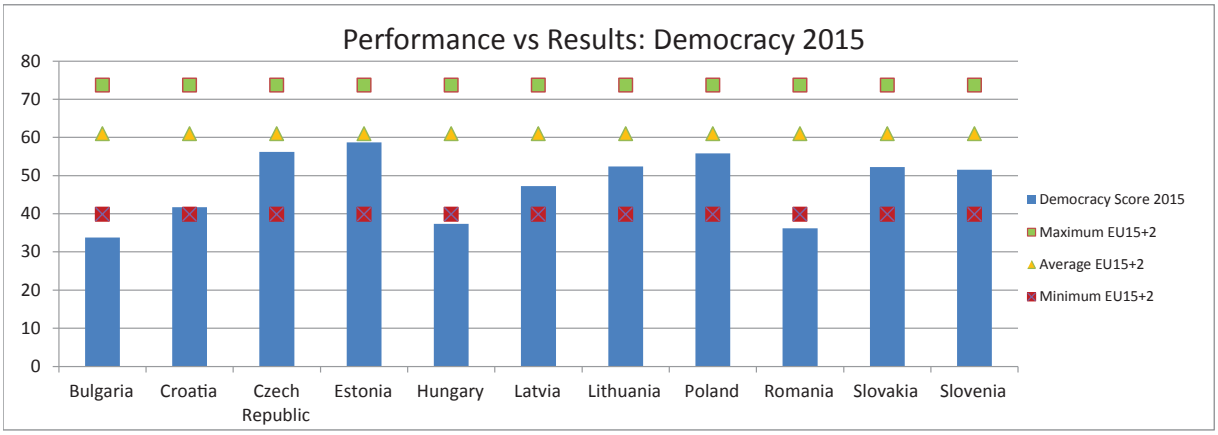
- The Czech Republic and Slovenia stand out because of their good positions in the index – 13th and 14th out of 35 in the 2015 edition – along with good progress by the Czech Republic.

- Estonia, Poland, Lithuania and Romania are the countries that achieved most progress in the previous four editions of the index.

- Stagnation is registered in Slovenia, Latvia and Bulgaria, and Slovakia, Hungary and Croatia (to lesser extent) register deterioration.

Catching-Up in Quality of Life 2015											
Group	Country	Score 2015	Rank 2015	Score change vs 2014	Score change vs 2013	Score change vs 2012	Score change vs 2011	Rank change vs 2014	Rank change vs 2013	Rank change vs 2012	Rank change vs 2011
EU15+2	Maximum	71	1								
EU15+2	Average	61									
EU10+1	Czech Republic	56	13	1	-1	1	4	1	0	3	5
EU10+1	Slovenia	56	14	-2	-1	-2	-1	-1	0	0	1
EU10+1	Estonia	52	18	2	4	3	3	1	3	2	2
EU10+1	Poland	48	20	-1	0	1	3	0	2	4	3
EU15+2	Minimum	46	22								
EU10+1	Lithuania	46	23	0	1	7	5	1	1	3	3
EU10+1	Slovakia	44	24	-1	-5	-3	-1	-1	-5	-2	0
EU10+1	Hungary	44	25	0	0	-4	-3	0	0	-4	-3
EU10+1	Croatia	44	26	1	2	3	0	0	0	-1	-1
EU10+1	Latvia	42	27	2	4	6	6	0	0	0	0
EU10+1	Romania	30	29	0	2	-2	3	0	2	1	2
EU10+1	Bulgaria	30	30	0	1	0	-1	0	0	1	0

Catching-Up in Democracy



Democracy in Central and Eastern Europe is one of the hotly debated issues with concerns of backsliding in a number of countries.

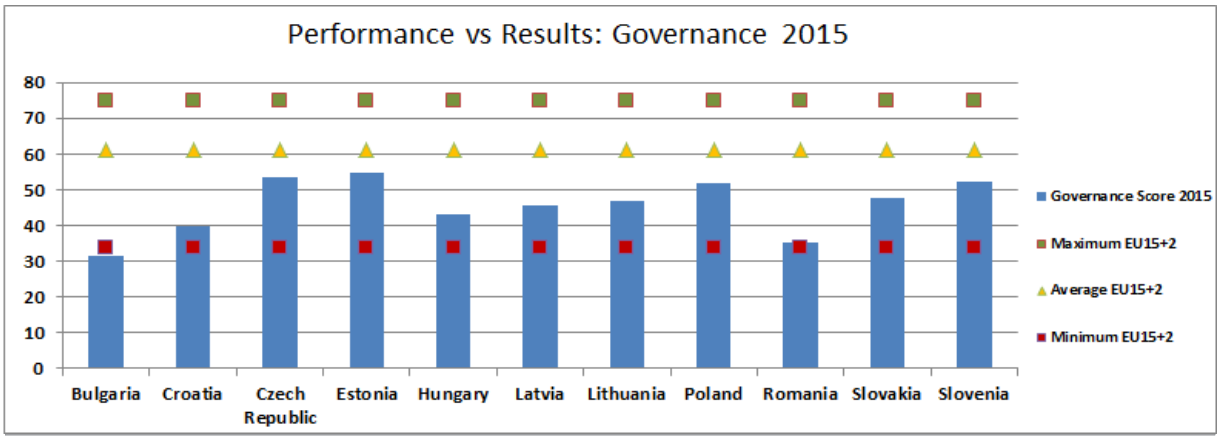
The Catch-Up Index 2015 registers the significant decline of Hungary year after year both in terms of position and scores.

The problems in Poland are yet to be assessed and scored, so the index shows that until 2015 the country was an exemplary performer with a third place in its group and 16th among the 35 countries in the index. Estonia and the Czech Republic show some hesitation, but they manage to keep their good positions with Estonia ranking 13th out of the all 35 countries in the index.

The end of 2015 witnessed a serious debate on the backsliding of democracy in the EU Member States in Central and Eastern Europe. The index confirms the situation with several countries deteriorating their standing in the index as shown in the table.

Catching-Up in Democracy 2015											
Group	Country	Democracy Score 2015	Rank 2015	Score change vs 2014	Score change vs 2013	Score change vs 2012	Score change vs 2011	Rank change vs 2014	Rank change vs 2013	Rank change vs 2012	Rank change vs 2011
EU15+2	Maximum	74	1								
EU15+2	Average	61									
EU10+1	Estonia	59	13	-1	0	0	1	-1	-1	-2	-1
EU10+1	Czech Republic	56	15	0	-1	-1	-1	0	-1	-2	-1
EU10+1	Poland	56	16	3	3	3	5	2	2	2	5
EU10+1	Lithuania	52	18	1	3	2	1	3	3	3	2
EU10+1	Slovakia	52	19	0	2	0	4	0	1	0	4
EU10+1	Slovenia	52	20	-2	-3	-2	-3	-4	-3	-4	-3
EU10+1	Latvia	47	23	4	7	6	3	1	3	3	2
EU10+1	Croatia	42	25	1	0	-1	1	1	0	0	2
EU15+2	Minimum	40	26								
EU10+1	Hungary	37	27	-5	-5	-8	-14	-2	-3	-3	-5
EU10+1	Romania	36	28	1	2	0	5	1	1	0	1
EU10+1	Bulgaria	34	29	-2	-1	-2	0	-1	-1	0	-1

Catching-Up in Governance



Governance is an area where the EU10+1 are catching up more slowly than desired as a group. But on the level of individual Member States, there are positive examples. Several countries attained good positions in the ranking. Despite none of the EU10+1 states is above the average of the reference group, there are Estonia, the Czech Republic and Slovenia occupying ranks 14, 16 and 18 respectively out of 35 in the index. Poland is close to them.

The most progressing countries in the 2015 index are the three Baltic states and Romania. Slovenia, Hungary, Bulgaria and the Czech Republic to some extent are the countries that are backsliding and worsening their Governance scores.

Catching-Up in Governance 2015											
Group	Country	Governance Score 2015	Rank 2015	Score change vs 2014	Score change vs 2013	Score change vs 2012	Score change vs 2011	Rank change vs 2014	Rank change vs 2013	Rank change vs 2012	Rank change vs 2011
EU15+2	Maximum	75	1								
EU15+2	Average	61									
EU10+1	Estonia	55	14	2	3	5	5	1	5	5	5
EU10+1	Czech Republic	54	16	1	-2	-3	-2	0	-2	-1	1
EU10+1	Slovenia	52	18	0	-2	-3	-5	-1	-2	-2	-4
EU10+1	Poland	52	20	1	1	2	4	0	0	0	0
EU10+1	Slovakia	48	21	0	-2	1	1	0	0	0	0
EU10+1	Lithuania	47	22	1	4	5	5	1	2	2	2
EU10+1	Latvia	46	23	1	2	6	6	1	0	2	2
EU10+1	Hungary	43	24	-3	-6	-3	-4	-2	-2	-2	-2
EU10+1	Croatia	40	26	1	1	1	1	0	0	0	1
EU10+1	Romania	35	27	2	2	2	2	1	2	2	2
EU15+2	Minimum	34	28								
EU10+1	Bulgaria	32	29	-1	-3	-3	-3	0	-1	-1	-1

Best and Worst Indicators in Economy: EU10+1

- **Best: Government debt**
- **Worst: Energy efficiency**
- **Outlier country: Estonia**

Energy efficiency, or energy intensity that measures the energy consumption of an economy, is the worst indicator for the EU10+1 group – all of them have unsatisfactory scores and despite some improvement they are still lagging behind their counterparts in the EU15+2 countries.

The GDP per capita indicator is not particularly good for the CEE countries as they still have a lot of catching-up to do, but still countries such as the Czech Republic, Slovenia and Slovakia are getting closer to the average levels.

In contrast, the government debt scores are either very good or good for most of the EU10+1 countries, as they have lower debt levels, but there are also countries such as Hungary, Slovenia and Croatia with higher government debt.

Some CEE countries generally have very good scores in Employment, with Estonia, the Czech Republic, Lithuania and Latvia ranking high - e.g. 7th, 9th, 13th and 14th out of 35 – but the rest of the countries have average or poor performance.

There are several indicators, where the margins between the countries are wide, demonstrating the diversity of the EU10+1 group.

This is the case with the performance of the EU10+1 group in ICT Development Index (Information and Communication Technology) with some countries performing very well – such as Estonia – and others such as Romania underperforming.

The Research and Development indicator (which combines two sub-indicators about high technology exports and patent numbers) shows variations too, as countries occupy positions 12 through 28.

The Credit Agencies Indices indicator (the average score of three credit agencies) again presents a mix from just good to poor performance of the countries.

There is variation in Market Development too (combining the assessment of market freedom and Doing Business), with the champion Estonia on 5th place out of 35 and Croatia trailing far behind on 28th.

Economy Indicators

The Economy category has several sets of sub-indicators to measure the performance of the EU10+1 countries.

GDP per capita			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	100	1
EU15+2	Average	61	
EU10+1	Czech Republic	48	17
EU10+1	Slovenia	48	18
EU10+1	Slovakia	45	20
EU10+1	Lithuania	44	21
EU10+1	Estonia	43	22
EU15+2	Minimum	43	23
EU10+1	Hungary	41	24
EU10+1	Poland	41	25
EU10+1	Latvia	39	26
EU10+1	Croatia	37	27
EU10+1	Romania	35	28
EU10+1	Bulgaria	31	30

The GDP per capita Purchasing Power Standards indicator is the most common and widely used. It shows that some member states show very good results, the Czech Republic and Slovenia followed closely by Slovakia, Lithuania and Estonia. Still, even these countries are well below the average and maximum scores of the top performers in the EU.

Employment			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	79	1
EU10+1	Estonia	67	7
EU10+1	Czech Republic	65	9
EU10+1	Lithuania	62	12
EU10+1	Latvia	59	13
EU15+2	Average	57	
EU10+1	Slovenia	53	15
EU10+1	Hungary	51	20
EU10+1	Poland	51	21
EU10+1	Slovakia	49	23
EU10+1	Romania	49	24
EU10+1	Bulgaria	48	25
EU10+1	Croatia	35	28
EU15+2	Minimum	23	28

The employment indicator shows that there are countries that might actually compete with EU15+2, as four of them are above the “average” threshold and come close to the maximum score.

Research and Development			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	79	1
EU15+2	Average	59	
EU10+1	Hungary	52	12
EU10+1	Czech Republic	50	14
EU10+1	Latvia	46	16
EU10+1	Estonia	45	17
EU10+1	Slovakia	43	19
EU10+1	Lithuania	42	20
EU10+1	Bulgaria	40	22
EU10+1	Croatia	40	23
EU10+1	Slovenia	40	25
EU10+1	Poland	39	26
EU10+1	Romania	37	28
EU15+2	Minimum	35	29

The research and development indicator shows good performance of the countries in the index.

Energy Efficiency			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	73	1
EU15+2	Average	66	
EU15+2	Minimum	57	17
EU10+1	Croatia	55	18
EU10+1	Slovenia	54	19
EU10+1	Hungary	50	21
EU10+1	Lithuania	49	22
EU10+1	Poland	45	23
EU10+1	Latvia	43	25
EU10+1	Romania	40	26
EU10+1	Slovakia	39	27
EU10+1	Czech Republic	37	28
EU10+1	Estonia	16	33
EU10+1	Bulgaria	3	34

Energy efficiency is one area, where there is clear and lasting divide between the EU10+1 and EU15+2. Apparently, the reference group countries have very high efficiency levels, as their counterparts all fall behind. This is clearly an area for a lot of improvement as countries such as Bulgaria and Estonia remain at the bottom of the rankings of 35 countries.

Transport Infrastructure			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	73	1
EU10+1	Slovenia	71	2
EU10+1	Estonia	62	6
EU10+1	Latvia	57	7
EU10+1	Croatia	56	8
EU15+2	Average	55	
EU10+1	Hungary	46	17
EU10+1	Slovakia	46	18
EU10+1	Lithuania	45	22
EU10+1	Romania	44	24
EU15+2	Minimum	42	26
EU10+1	Czech Republic	39	29
EU10+1	Bulgaria	37	30
EU10+1	Poland	35	33

The indicator for transport infrastructure is one that changes very slowly over time. Nevertheless, it shows that most of the countries have decent transport infrastructure (four sub-indicators based on roads and highways).

Government Debt			
Group	Country	Score 2015	Rank 2015
EU10+1	Estonia	84	1
EU15+2	Maximum	77	1
EU10+1	Bulgaria	74	3
EU10+1	Romania	67	6
EU10+1	Latvia	67	7
EU10+1	Lithuania	67	8
EU10+1	Czech Republic	66	9
EU10+1	Poland	62	13
EU10+1	Slovakia	60	14
EU10+1	Hungary	46	22
EU10+1	Slovenia	44	23
EU10+1	Croatia	42	26
EU15+2	Average	40	
EU15+2	Minimum	0	35

The government debt indicator came to the fore with the economic and financial crisis after 2008. The majority of the EU10+1 are actually very good performers. Estonia holds the first place and Bulgaria comes third even though it started to increase its debt levels recently.

Market Development			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	78	1
EU10+1	Estonia	73	5
EU10+1	Lithuania	65	11
EU10+1	Latvia	57	12
EU10+1	Czech Republic	56	13
EU15+2	Average	56	
EU10+1	Poland	51	17
EU10+1	Slovakia	48	19
EU10+1	Bulgaria	46	21
EU10+1	Hungary	43	24
EU10+1	Romania	42	25
EU10+1	Slovenia	36	29
EU10+1	Croatia	26	31
EU15+2	Minimum	19	33

The market development indicator is a case of variation among the countries, ranging from 5th place for Estonia to 31st for Croatia among the all 35.

Information&Communication Techn			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	78	1
EU10+1	Estonia	62	10
EU15+2	Average	56	
EU10+1	Slovenia	52	16
EU10+1	Latvia	50	17
EU10+1	Croatia	47	19
EU10+1	Lithuania	44	21
EU10+1	Czech Republic	44	22
EU10+1	Poland	42	24
EU10+1	Slovakia	41	25
EU10+1	Hungary	40	26
EU10+1	Bulgaria	36	27
EU10+1	Romania	27	30
EU15+2	Minimum	19	33

The Information and Communication Technology Index demonstrates the differences within the group of the EU10+1 countries, from the champion Estonia to the foot.

Credit Agencies			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	71	1
EU10+1	Estonia	67	11
EU10+1	Latvia	63	13
EU10+1	Lithuania	63	14
EU10+1	Slovakia	60	16
EU10+1	Czech Republic	60	17
EU15+2	Average	59	
EU10+1	Slovenia	56	18
EU10+1	Poland	52	21
EU10+1	Romania	39	23
EU10+1	Bulgaria	38	25
EU10+1	Hungary	34	27
EU10+1	Croatia	32	28
EU15+2	Minimum	5	35

The Credit Agencies indicator is composed of the sovereign credit ratings of three major agencies. Nearly half of the EU10+1 are above the average benchmark with reasonably good scores and ranking with couple of others close to this result too. In general, the Baltics and the Central European countries, except Hungary, are performing well.

Best and Worst Indicators in Quality of Life: EU10+1

- **Best: Human Development**
- **Worst: Health**
- **Outlier country: Estonia, Poland in Education**

Expectedly, the EU10+1 are lagging behind in "wealth" indicators (Actual Individual Consumption). But there is a wide range of scores - from Lithuania, which occupies the not so bad 18th position out of 35, to Bulgaria which is far behind on 30th position.

The Social Issues indicator, which combines sub-indicators on Inequality, Risk of Poverty and Long-term Unemployment, registers mixed performance of the group as some of the countries have higher scores – Czech Republic and Slovenia, while others have very poor results – Romania and Bulgaria.

In the Education indicator, which combines several sub-indicators, two countries – Estonia and Poland - have excellent scores, but the rest vary from just good to poor performance, with Bulgaria and Romania at the end of the ranking.

Healthcare indicators, which combine four sub-indicators, show the worst aspect of the EU10+1, as their results vary from less satisfactory to outright poor performance. All the countries from the group are below even the "minimum EU15+2", ranging from the not that bad Czech Republic and Slovenia to the very poor results of Bulgaria and Romania.

The Human Development Index (HDI) of the UN Development Program "is a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and have a decent standard of living". The EU10+1 countries perform quite well in this indicator and as the HDI provides for global comparison they are among the countries with "very high" or "high" human development.

Quality of Life Indicators

The index shows that Quality of Life remains the most challenging category in the catching-up process, as shown by all five editions of the index. A closer look at the indicators that measure performance here shows that these states fall significantly behind in consumption and health indicators.

There are two possible explanations. The first one is that these are complex public service systems that are very difficult to change and even positive changes are slow to show results in the short and mid-term. The second explanation is that the period of five index editions coincides with the economic crisis and its social effects.

Consumption per capita			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	90	1
EU15+2	Average	66	
EU10+1	Lithuania	48	18
EU15+2	Minimum	47	19
EU10+1	Czech Republic	44	20
EU10+1	Poland	44	21
EU10+1	Slovakia	44	22
EU10+1	Slovenia	44	23
EU10+1	Estonia	37	24
EU10+1	Latvia	37	25
EU10+1	Hungary	35	26
EU10+1	Croatia	33	27
EU10+1	Romania	31	29
EU10+1	Bulgaria	26	30

Actual Individual Consumption (AIC per capita PPS) has generally stayed the same for the majority of the EU countries, affected by the economic crisis. But some of the EU10+1 countries witnessed improvement such as Lithuania (74 in 2012 to 81 in 2014), the Czech Republic, Estonia and Latvia. But even these countries are nowhere near the average of their counterparts of the EU15+2 group. There is also considerable variation among the EU10+1 countries, as Romania and Bulgaria are still lagging behind significantly.

Social Issues			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	73	1
EU10+1	Czech Republic	71	3
EU10+1	Slovenia	65	7
EU10+1	Hungary	60	15
EU15+2	Average	57	
EU10+1	Poland	55	17
EU10+1	Estonia	53	18
EU10+1	Slovakia	50	20
EU10+1	Lithuania	47	21
EU10+1	Latvia	46	22
EU10+1	Croatia	43	23
EU10+1	Romania	41	26
EU10+1	Bulgaria	36	28
EU15+2	Minimum	24	32

The Social Issues indicator exposes variations within the EU10+1 group. The indicator combines three sub-indicators: inequality, long-term employment and risk of poverty. There are countries that perform much better that the others such as the Czech Republic and Slovenia. They even manage to surpass the average EU15+2 score.

Another interesting observation is that the "Social Issues" scores in the three sub-indications vary among the countries, as shown by the index scores.

Social Issues	Gini Index	Relative median at-risk-of-poverty gap	Long term unemployment
Bulgaria	28	31	50
Croatia	49	39	40
Czech Republic	78	73	63
Estonia	40	58	61
Hungary	63	56	60
Latvia	28	52	57
Lithuania	30	55	57
Poland	50	55	60
Romania	35	26	63
Slovakia	71	36	42

For example, Bulgaria and Latvia are the countries with greatest inequalities, while the Czech Republic and Slovakia have least inequalities. Similarly, the risk of poverty gap is more than twice as bad in Bulgaria than in the Czech Republic.

Health			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	72	1
EU15+2	Average	64	
EU15+2	Minimum	53	18
EU10+1	Czech Republic	53	19
EU10+1	Croatia	50	20
EU10+1	Slovenia	50	21
EU10+1	Estonia	50	22
EU10+1	Slovakia	37	25
EU10+1	Hungary	35	27
EU10+1	Latvia	30	28
EU10+1	Poland	30	29
EU10+1	Lithuania	28	31
EU10+1	Bulgaria	23	32
EU10+1	Romania	23	34

The Health indicator is one of the most pessimistic for the EU10+1. Even the best performers are far from the desired average and stay even below the minimum. Still, some countries that manage to get better results in the middle of the ranking. Others - Lithuania, Bulgaria and Romania - are nearly at the bottom of the list.

Performance in the four different sub-indicators shows substantial differences between the countries.

Health	Healthy life years	Infant mortality	Life expectancy at birth - years	Health index
Bulgaria	22	15	23	33
Croatia	43	56	56	48
Czech Republic	50	62	41	59
Estonia	36	65	45	53
Hungary	22	45	31	41
Latvia	22	32	28	40
Lithuania	22	50	12	27
Poland	36	50	7	28
Romania	29	10	32	19
Slovakia	36	36	24	51
Slovenia	50	67	32	52

The infant mortality data for children under five is particularly important, as it says a lot not only about the healthcare system, but the overall social situation, gives very low scores of 10 to Romania and 15 to Bulgaria compared to 67 and 65 for Estonia and Slovenia.

Education			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	74	1
EU10+1	Estonia	71	2
EU10+1	Poland	67	5
EU10+1	Slovenia	60	13
EU15+2	Average	58	
EU10+1	Latvia	57	14
EU10+1	Czech Republic	57	15
EU10+1	Lithuania	57	16
EU10+1	Croatia	51	18
EU10+1	Hungary	50	21
EU10+1	Slovakia	45	25
EU15+2	Minimum	44	27
EU10+1	Bulgaria	33	28
EU10+1	Romania	26	32

The Education indicator shows that two countries - Estonia and Poland - hold 2nd and 5th place among all the 35 countries. This is mainly due to the extremely good results in PISA, the OECD assessment of reading, mathematics and science literacy.

Country	Early school leavers	Population with university degree	PISA - reading	PISA - mathematics	PISA - science
Bulgaria	48	47	24	20	27
Croatia	73	34	44	53	53
Czech Republic	66	35	62	59	62
Estonia	52	72	76	74	81
Hungary	52	38	48	55	54
Latvia	59	55	57	56	59
Lithuania	65	66	49	48	55
Poland	66	47	74	75	72
Romania	35	23	28	22	23
Slovakia	63	33	51	39	41
Slovenia	69	50	63	51	66

The sub-indicators for Education show variance in the performance of the EU10+1 countries.

Human Development Index			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	76	1
EU15+2	Average	63	
EU10+1	Slovenia	62	14
EU10+1	Czech Republic	57	17
EU10+1	Estonia	49	20
EU10+1	Lithuania	47	21
EU10+1	Poland	47	22
EU10+1	Slovakia	46	23
EU15+2	Minimum	43	25
EU10+1	Hungary	42	26
EU10+1	Croatia	39	27
EU10+1	Latvia	39	28
EU10+1	Romania	30	29
EU10+1	Bulgaria	27	30

The Human Development Index of the United Nations is a composite index that shows the general standing of the countries on global scale.

Best and Worst in Democracy Indicators

- **Best: Media freedom**
- **Worst: E-participation**
- **Outlier country: Estonia**

The EU10+1 countries register significant variation in their performance in the Democracy indicators. This means that it is very difficult to assess them as a group and it is difficult to pick "the best and the worst". This is the case with Satisfaction with Democracy, where the Poles were very satisfied (this was so in 2015) and ranked 12th, but Slovenia was 31st. In Media Freedom (with two combined sub-indicators) there is Estonia on 7th position and Bulgaria on 29th out of 35 countries, showing the differences within the group with three countries performing above the average and four in danger of falling behind.

Democracy Indicators

The indicators in the Democracy category show the differentiation between the 11 EU members in Central and Eastern Europe. There are countries which are performing strong in nearly all indicators and, respectively, those countries that fail to perform.

Satisfaction with Democracy			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	91	1
EU15+2	Average	62	
EU10+1	Poland	58	12
EU10+1	Czech Republic	55	14
EU10+1	Latvia	51	16
EU10+1	Estonia	50	17
EU10+1	Hungary	41	19
EU10+1	Lithuania	37	22
EU10+1	Slovakia	34	25
EU10+1	Bulgaria	33	26
EU10+1	Romania	33	27
EU10+1	Croatia	32	28
EU10+1	Slovenia	29	31
EU15+2	Minimum	24	33

The Satisfaction with Democracy indicator registers to what extent the citizens are satisfied with the functioning of democracy in their countries. The indicator shows that there are three groups of countries: those with high level of satisfaction: Poland, the Czech Republic (for Poland the data was before the last elections), Latvia and Estonia; a second group of fairly good satisfaction and those who are not satisfied such as Slovenia, Croatia, Romania and Bulgaria.

Trust in People			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	89	1
EU15+2	Average	58	
EU10+1	Slovenia	57	12
EU10+1	Romania	53	15
EU10+1	Estonia	50	18
EU10+1	Poland	50	19
EU10+1	Lithuania	48	22
EU10+1	Croatia	46	23
EU10+1	Bulgaria	44	25
EU10+1	Czech Republic	41	28
EU10+1	Hungary	41	29
EU10+1	Slovakia	39	30
EU10+1	Latvia	38	31
EU15+2	Minimum	0	33

Trust in People is one of the important and interesting indicators, used as a proxy for civil society development in the broader definition, e.g. following Fukuyama's argument of the link between high trust societies and prosperity. The indicator measures one's trust in other people, who are not part of the immediate family or surrounding.

As seen in the results, there are countries which tend to feature very high levels of trust in people that are close to the "average" of the EU15+2. At the same time, however, they are still far from the best results in the reference group that includes Finland, Denmark, Sweden and the Netherlands.

At the same time, a number of countries have rather low levels of trust and are at the bottom of the ranking.

Democracy Indices			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	74	1
EU15+2	Average	62	
EU10+1	Czech Republic	59	14
EU10+1	Estonia	57	18
EU10+1	Slovenia	56	19
EU10+1	Lithuania	55	20
EU10+1	Poland	55	21
EU10+1	Slovakia	54	23
EU10+1	Croatia	44	24
EU10+1	Latvia	43	25
EU15+2	Minimum	42	26
EU10+1	Hungary	38	27
EU10+1	Bulgaria	36	28
EU10+1	Romania	36	30

The Democratic Indices is based on the Economist Intelligence Unit (EIU) and Freedom House assessments.

According to Democracy Index 2015 of the Economist Intelligence Unit, there is not a single CEE country that can be qualified as "full democracy" and even the frontrunner among this group - the Czech Republic - is a "flawed democracy" – in perspective, slightly above Belgium in the Democracy Index ranking.

Back to the Catch-Up Index, there are several countries with identical scores that are close to the "EU15+2 average" benchmark with the following five countries – the Czech Republic, Estonia, Slovenia, Lithuania, Poland and Slovakia. Hungary, Bulgaria and Romania - trailing behind, occupying positions 27th, 28th and 30th out of 35 in total.

Media Freedom			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	75	1
EU10+1	Estonia	68	7
EU10+1	Czech Republic	64	12
EU10+1	Slovakia	62	13
EU15+2	Average	60	
EU10+1	Poland	59	15
EU10+1	Lithuania	53	17
EU10+1	Latvia	52	20
EU10+1	Slovenia	52	21
EU10+1	Hungary	36	25
EU10+1	Croatia	35	26
EU10+1	Romania	35	27
EU10+1	Bulgaria	29	29
EU15+2	Minimum	22	33

Media freedom is essential for democracy and this is reflected by the Catch-Up Index by including two media freedom indices (Freedom House and Reporters without Borders). The situation in the CEE region is a mixed one. Three countries - Estonia, the Czech Republic and Slovakia are above the average and several others in the Baltics and Central Europe come close. But four countries underperform - Hungary, Croatia, Romania and Bulgaria.

Voice and Accountability			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	76	1
EU15+2	Average	64	
EU10+1	Estonia	59	14
EU10+1	Poland	55	16
EU10+1	Czech Republic	51	18
EU10+1	Slovakia	48	21
EU10+1	Lithuania	47	22
EU10+1	Slovenia	47	23
EU10+1	Latvia	44	24
EU15+2	Minimum	39	33
EU10+1	Hungary	38	26
EU10+1	Croatia	34	27
EU10+1	Romania	30	28
EU10+1	Bulgaria	30	29

The Voice and Accountability indicator is from the World Bank's indicators and it captures 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 free media.

Estonia, Poland and the Czech Republic are in the top three, while Hungary, Croatia, Romania, Bulgaria are at the bottom of the list.

Human Rights			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	62	1
EU10+1	Croatia	62	16
EU10+1	Czech Republic	62	17
EU10+1	Estonia	62	18
EU10+1	Latvia	62	19
EU10+1	Lithuania	62	20
EU10+1	Poland	62	21
EU10+1	Slovakia	62	22
EU10+1	Slovenia	62	23
EU15+2	Average	58	
EU15+2	Minimum	31	26
EU10+1	Bulgaria	31	27
EU10+1	Hungary	31	28
EU10+1	Romania	31	29

The Human Rights indicator is not very sensitive, so there are two big groups of countries – 8 countries that have the same score (62) and the laggards of Bulgaria, Hungary and Romania – all with the same score of 31.

E-participation			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	92	1
EU10+1	Estonia	69	7
EU10+1	Latvia	63	10
EU15+2	Average	61	
EU10+1	Lithuania	57	13
EU10+1	Slovakia	55	16
EU10+1	Poland	42	22
EU10+1	Romania	40	26
EU10+1	Hungary	38	27
EU10+1	Slovenia	32	29
EU10+1	Croatia	26	30
EU15+2	Minimum	25	31
EU10+1	Bulgaria	19	32
EU10+1	Czech Republic	19	33

The E-participation indicator is defined as "ICT-supported participation in processes involved in government and governance" with processes that may concern administration, service delivery, decision making and policy making.

Estonia is somewhat naturally a leader of the group, followed closely by fellow Baltics Latvia and Lithuania. They are still way below the best performer in the EU15+2 group (the Netherlands in this case).

Best and Worst Indicators in Governance: EU10+1

- **Best: Political stability**
- **Worst: Government effectiveness**
- **Outlier country: Estonia**

There are seven indicators measuring Governance, but the performance of the EU10+1 varies significantly from country to country, so it is challenging to single out the best and the worst.

Estonia is the outlier, as it appears most often on the top of the group rankings – 5 out of 7. The other better performers are the Czech Republic, Slovenia and Poland. Bulgaria and Romania are at the opposite side with the lowest performance in the group in most cases.

Governance Indicators

Corruption			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	83	1
EU15+2	Average	63	
EU10+1	Estonia	63	13
EU10+1	Slovenia	49	17
EU10+1	Poland	49	18
EU10+1	Lithuania	46	20
EU10+1	Latvia	43	21
EU10+1	Czech Republic	40	22
EU10+1	Hungary	39	23
EU10+1	Slovakia	36	24
EU10+1	Croatia	36	25
EU10+1	Romania	28	30
EU15+2	Minimum	27	31
EU10+1	Bulgaria	26	33

The indicator for Corruption in the index is composed of two sub-indicators (Control of Corruption and Corruption Perception Index). Estonia is the country with very good result reaching the desired “average”. The rest of the countries are divided into the reasonably well performing – Slovenia, Poland, etc. to those underperforming such as Romania and Bulgaria.

Political Stability			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	76	1
EU10+1	Slovakia	64	10
EU10+1	Slovenia	62	11
EU10+1	Czech Republic	59	12
EU15+2	Average	59	
EU10+1	Poland	57	14
EU10+1	Hungary	55	16
EU10+1	Estonia	52	18
EU10+1	Lithuania	49	21
EU10+1	Latvia	44	23
EU10+1	Croatia	42	25
EU10+1	Romania	41	26
EU10+1	Bulgaria	33	29
EU15+2	Minimum	32	30

The Political Stability indicator is based on two sub-indicators and shows that three of the EU10+1 countries perform above the "average" - Slovakia, Slovenia and the Czech Republic.

Rule of Law			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	77	1
EU15+2	Average	63	
EU10+1	Estonia	61	13
EU10+1	Czech Republic	58	15
EU10+1	Slovenia	53	18
EU10+1	Lithuania	51	20
EU10+1	Latvia	50	21
EU10+1	Poland	49	22
EU10+1	Hungary	41	23
EU10+1	Slovakia	39	24
EU15+2	Minimum	36	26
EU10+1	Croatia	35	27
EU10+1	Romania	32	28
EU10+1	Bulgaria	23	32

The Rule of Law indicators show variation of performance between the EU10+1 countries, as Estonia occupies the very good 13th position and Bulgaria is at the bottom of the ranking on 32nd position. Estonia is closest to the average benchmark.

Internal Conflict&Crime			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	71	1
EU10+1	Czech Republic	64	5
EU10+1	Slovenia	61	10
EU10+1	Poland	59	14
EU15+2	Average	59	
EU10+1	Slovakia	55	17
EU10+1	Romania	54	18
EU10+1	Croatia	53	20
EU10+1	Bulgaria	50	22
EU10+1	Hungary	38	29
EU15+2	Minimum	36	30
EU10+1	Latvia	28	31
EU10+1	Estonia	24	33
EU10+1	Lithuania	21	34

The Internal Conflict and Crime Indicator is based on two sub-indicators that show the level of domestic order based on the Peace Index as well as crime measured as "homicide rate" to avoid unreliable crime statistics. The results show a mixed picture among the EU10+1 countries, as some perform very well such as the Czech Republic.

The Baltic states receive low grades, as they have issues with their neighbor and have the high homicide rates in comparison to the other EU countries.

Government Effectiveness			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	78	1
EU15+2	Average	63	
EU10+1	Estonia	54	15
EU10+1	Czech Republic	53	17
EU10+1	Slovenia	52	19
EU10+1	Lithuania	51	20
EU10+1	Latvia	50	21
EU10+1	Slovakia	47	22
EU10+1	Poland	45	23
EU10+1	Croatia	44	24
EU10+1	Hungary	42	25
EU15+2	Minimum	35	28
EU10+1	Bulgaria	23	32
EU10+1	Romania	20	33

The Government Effectiveness Indicator scores show that the performance of the group varies from decent – Estonia, Czech Republic – to very low – as in Romania and Bulgaria. However, all countries are under the average level.

Regulatory Quality			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	79	1
EU10+1	Estonia	71	8
EU10+1	Lithuania	61	12
EU15+2	Average	61	
EU10+1	Latvia	58	14
EU10+1	Poland	53	18
EU10+1	Czech Republic	53	19
EU10+1	Slovakia	49	20
EU10+1	Hungary	42	23
EU10+1	Slovenia	40	24
EU10+1	Romania	38	26
EU10+1	Bulgaria	37	27
EU10+1	Croatia	29	30
EU15+2	Minimum	28	31

The Regulatory Quality shows there are two countries above the average benchmark – Estonia and Lithuania – with Latvia very close to them. As the same time the Balkan countries of Romania, Bulgaria and Croatia are near the end of the ranking.

E-government			
Group	Country	Score 2015	Rank 2015
EU15+2	Maximum	82	1
EU10+1	Estonia	70	7
EU15+2	Average	64	
EU10+1	Lithuania	55	16
EU10+1	Latvia	53	17
EU10+1	Hungary	44	20
EU10+1	Slovenia	42	22
EU10+1	Poland	42	23
EU10+1	Croatia	39	25
EU10+1	Slovakia	36	26
EU10+1	Czech Republic	35	27
EU15+2	Minimum	33	28
EU10+1	Romania	28	29
EU10+1	Bulgaria	25	32

The E-government ranking puts Estonia among the best performing countries in the index, followed by the fellow Baltic states of Lithuania and Latvia.

Annexes

Economy: Indicators and Scores 2015

Economy Scores	GDP per capita	Govern-ment debt	Credit ratings	Employ-ment	Energy Intensity	Informa-tion Society	Research and Development		Market development		Transport infrastructure				Economy Comsposite Score
	GDP per capita in PPS with EU27=100	General government debt (% of GDP)	Sovereigns credit ratings	Employment as percentage of population, age group 15-64	Energy intensity of the economy	Information and Communication Technology	Patents granted by USPTO per capita	High-tech exports as % of manifactured exports	Doing Business rank	Economic Freedom score	Motorways per area 1000 km²	Motorways per 100000 inhabitants	Other roads per 1000 km²	Other roads per 100000 inhabitants	
Austria	**68**	**42**	**70**	**58**	**68**	**61**	**70**	**58**	**64**	**66**	**54**	**63**	**51**	**49**	**63**
Belgium	**64**	**29**	**68**	**52**	**61**	**60**	**63**	**52**	**48**	**57**	**94**	**55**	**97**	**48**	**58**
Cyprus	**49**	**29**	**21**	**41**	**64**	**32**	**39**	**41**	**31**	**48**	**78**	**83**	**60**	**49**	**43**
Denmark	**67**	**64**	**71**	**59**	**73**	**84**	**83**	**59**	**77**	**79**	**60**	**63**	**54**	**47**	**70**
Finland	**60**	**56**	**70**	**41**	**57**	**74**	**98**	**41**	**73**	**69**	**34**	**53**	**36**	**53**	**62**
France	**59**	**36**	**68**	**90**	**65**	**66**	**61**	**90**	**56**	**34**	**54**	**59**	**57**	**51**	**58**
Germany	**67**	**47**	**71**	**64**	**67**	**66**	**87**	**64**	**73**	**69**	**70**	**55**	**56**	**43**	**66**
Greece	**43**	**0**	**5**	**42**	**64**	**46**	**37**	**42**	**34**	**5**	**41**	**46**	**39**	**42**	**31**
Ireland	**70**	**28**	**63**	**81**	**73**	**60**	**61**	**81**	**70**	**80**	**45**	**62**	**49**	**54**	**61**
Italy	**54**	**15**	**54**	**41**	**68**	**48**	**46**	**41**	**37**	**24**	**56**	**46**	**43**	**40**	**45**
Luxembourg	**100**	**77**	**71**	**43**	**67**	**73**	**55**	**43**	**35**	**72**	**95**	**77**	**46**	**40**	**74**
Malta	**49**	**51**	**61**	**100**	**65**	**54**	**39**	**100**	**8**	**44**	**32**	**24**	**100**	**41**	**52**
Netherlands	**69**	**51**	**70**	**75**	**64**	**75**	**73**	**75**	**74**	**72**	**100**	**54**	**77**	**43**	**68**
Portugal	**46**	**16**	**44**	**33**	**64**	**43**	**36**	**33**	**61**	**34**	**66**	**80**	**33**	**37**	**44**
Spain	**52**	**34**	**55**	**42**	**67**	**56**	**40**	**42**	**55**	**47**	**63**	**86**	**36**	**39**	**50**
Sweden	**67**	**65**	**71**	**59**	**65**	**81**	**100**	**59**	**72**	**68**	**36**	**62**	**36**	**49**	**69**
UK	**59**	**39**	**71**	**42**	**70**	**78**	**61**	**42**	**74**	**75**	**48**	**35**	**54**	**42**	**61**
Bulgaria	**31**	**74**	**38**	**43**	**3**	**36**	**37**	**43**	**51**	**42**	**37**	**39**	**34**	**38**	**39**
Czech Republic	**48**	**66**	**60**	**61**	**37**	**44**	**40**	**61**	**47**	**65**	**42**	**38**	**36**	**38**	**52**
Estonia	**43**	**84**	**67**	**50**	**16**	**62**	**41**	**50**	**67**	**79**	**35**	**45**	**69**	**100**	**57**
Hungary	**41**	**46**	**34**	**65**	**50**	**40**	**39**	**65**	**39**	**46**	**49**	**54**	**40**	**41**	**44**
Latvia	**39**	**67**	**63**	**56**	**43**	**50**	**36**	**56**	**63**	**52**	**32**	**24**	**72**	**100**	**52**
Lithuania	**44**	**67**	**63**	**49**	**49**	**44**	**36**	**49**	**62**	**68**	**37**	**45**	**44**	**54**	**53**
Poland	**41**	**62**	**52**	**42**	**45**	**42**	**36**	**42**	**56**	**46**	**37**	**32**	**35**	**38**	**46**
Romania	**35**	**67**	**39**	**37**	**40**	**27**	**36**	**37**	**43**	**41**	**35**	**30**	**55**	**55**	**42**
Slovakia	**45**	**60**	**60**	**49**	**39**	**41**	**36**	**49**	**52**	**44**	**41**	**39**	**54**	**50**	**48**
Slovenia	**48**	**44**	**56**	**38**	**54**	**52**	**41**	**38**	**41**	**31**	**72**	**97**	**59**	**55**	**50**
Croatia	**37**	**42**	**32**	**43**	**55**	**47**	**37**	**43**	**30**	**22**	**56**	**84**	**41**	**44**	**40**
Macedonia	26	68	31	32	24	26	35	32	57	52	42	48	39	42	**36**
Turkey	34	70	35	27	53	17	35	27	38	39	35	29	38	40	**38**
Montenegro	28	57	25	27	21	24	35	27	53	34	32	24	39	47	**32**
Iceland	65	43	38	63	28	80	69	63	71	66	32	31	33	71	**57**
Albania	23	49	19	23	43	7	35	23	28	46	32	24	33	37	**29**
BiH	23	64	13	28	34	16	35	28	0	15	32	26	36	40	**26**
Serbia	26	50	21	32	0	35	35	32	11	19	40	40	39	41	**27**

Quality of Life: Indicators and Scores 2015

Quality of Life Scores	Welfare of consumers	Social issues			Education					Health				Human Development	Overall Quality of Life Score
	Actual individual consump-tion with EU27=100	Inequality - Gini coefficient	Relative median at-risk-of-poverty gap (%)	Long term unemployment rate (%)	Share (%) of early school leavers	Share of population (%) with university degree	PISA score in reading literacy	PISA score mathemati-cal literacy	PISA score in scientific literacy	Healthy life expectancy at birth in years	Infant mortality by age of 5	Life expectancy in years	EuroHealth Consumer Index	Human Development Index	
Austria	76	64	63	67	63	56	66	57	61	64	61	64	69	64	66
Belgium	72	72	66	58	56	69	72	69	61	64	57	61	75	64	66
Cyprus	56	42	70	47	63	79	25	29	23	84	66	72	44	51	55
Denmark	72	65	52	66	61	61	63	61	57	57	61	62	78	71	66
Finland	71	74	81	66	56	74	75	79	83	64	69	60	79	63	70
France	70	53	73	58	59	63	59	67	57	70	56	66	66	65	64
Germany	78	55	62	65	56	46	71	69	71	64	60	64	74	75	68
Greece	50	33	29	10	58	49	33	48	39	64	54	64	35	54	46
Ireland	57	53	71	51	63	77	63	79	70	64	60	66	48	71	63
Italy	60	41	39	47	43	25	53	57	54	77	61	73	49	61	55
Luxembourg	90	52	70	67	65	87	56	55	53	70	72	70	74	64	71
Malta	47	63	66	63	30	33	63	51	66	64	42	69	39	45	51
Netherlands	70	76	73	62	59	62	77	71	70	64	59	69	87	76	71
Portugal	50	34	41	45	37	37	54	55	52	64	60	58	60	43	48
Spain	55	32	29	31	26	67	53	55	55	77	57	73	52	60	52
Sweden	72	77	63	67	63	70	49	52	49	70	64	73	66	70	67
UK	72	52	64	65	51	79	59	63	66	64	56	67	59	68	65
Bulgaria	26	28	31	50	48	47	24	20	27	22	15	23	33	27	30
Czech Republic	44	78	73	63	66	35	62	59	62	50	62	41	59	57	56
Estonia	37	40	58	61	52	72	76	74	81	36	65	45	53	49	52
Hungary	35	63	56	60	52	38	48	55	54	22	45	31	41	42	44
Latvia	37	28	52	57	59	55	57	56	59	22	32	28	40	39	42
Lithuania	48	30	55	57	65	66	49	48	55	22	50	12	27	47	46
Poland	44	50	55	60	66	47	74	75	72	36	50	7	28	47	48
Romania	31	35	26	63	35	23	28	22	23	29	10	32	19	30	30
Slovakia	44	71	36	42	63	33	51	39	41	36	36	24	51	46	44
Slovenia	44	79	62	55	69	50	63	51	66	50	67	32	52	62	56
Croatia	33	49	39	40	73	34	44	53	53	43	56	56	48	39	44
Macedonia	20	21	7	0	49	26	30	27	27	29	48	34	57	11	23
Turkey	32	7	36	65	0	22	30	47	37	22	0	46	22	20	27
Montenegro	26	51	14	22	60	19	6	11	7	29	53	38	20	69	37
Iceland	74	81	69	70	30	63	58	52	45	70	71	74	75	69	68
Albania	16	58	31	38	2	43	0	0	0	22	0	20	33	5	19
BiH	18	25	26	4	6	25	30	27	27	43	48	48	14	10	21
Serbia	23	16	14	16	60	19	30	27	27	22	40	30	22	15	23

Democracy: Indicators and Scores 2015

Democracy Scores	Satisfaction with democracy	Trust in People	Democracy Indices		Media Freedom		Voice and Accountability	Human Rights	E-participation	Overall Democracy Score
	Satisfaction with democracy %	Trust in people	Freedom House score Freedom in the World	Economist Intelligence Unit Democracy Index	Freedom of the Press score by Freedom House	Press Freedom Index by Reporters without Borders	Voice and Accountability - WGI	Disrespect for human rights by Global Peace Index	E-participation index	
Austria	71	58	62	65	59	70	71	62	55	64
Belgium	68	62	62	55	74	67	70	62	55	64
Cyprus	24	0	62	46	54	58	52	62	25	46
Denmark	91	88	62	75	72	75	73	62	48	73
Finland	81	89	62	74	74	77	74	62	63	73
France	55	58	62	57	57	48	64	62	88	59
Germany	73	53	62	67	64	68	72	62	63	65
Greece	35	41	38	47	18	26	39	62	72	40
Ireland	66	62	62	68	67	69	68	62	57	65
Italy	36	50	62	54	46	33	49	31	70	48
Luxembourg	78	69	62	71	72	64	72	62	48	68
Malta	73	48	62	63	57	41	60	62	40	59
Netherlands	80	76	62	72	74	73	75	62	92	71
Portugal	31	41	62	53	64	56	57	31	57	51
Spain	38	60	62	57	50	50	50	62	70	55
Sweden	84	77	62	86	75	73	76	62	53	74
UK	65	62	62	62	56	50	67	62	88	62
Bulgaria	33	44	38	35	36	22	30	31	19	34
Czech Republic	55	41	62	55	60	68	51	62	19	56
Estonia	50	50	62	52	67	69	59	62	69	59
Hungary	41	41	38	38	38	34	38	31	38	37
Latvia	51	38	38	47	50	54	44	62	63	47
Lithuania	37	48	62	48	54	53	47	62	57	52
Poland	58	50	62	47	53	66	55	62	42	56
Romania	33	53	38	34	31	39	30	31	40	36
Slovakia	34	39	62	45	56	68	48	62	55	52
Slovenia	29	57	62	49	54	49	47	62	32	52
Croatia	32	46	50	38	34	37	34	62	27	42
Macedonia	48	29	1	27	9	15	12	31	15	20
Turkey	32	51	1	7	0	0	5	0	42	11
Montenegro	40	50	25	21	35	19	25	31	51	30
Iceland	52	56	62	83	67	63	70	62	42	65
Albania	23	0	13	17	21	31	24	31	46	20
BiH	29	34	1	2	18	34	15	31	17	17
Serbia	23	46	38	34	34	34	26	31	34	34

Governance: Indicators and Scores 2015

Governance Scores	Corruption		Political Stability		Government	Regulations	Rule of Law	Conflict and tensions		E-government	Overall Governance Score
	Corruption Perception Index (TI)	Control of Corruption (WGI)	Political instability EIU	Political Stability and Absence of Violence (WGI)	Governement Effectiveness (WGI)	Regulatory Quality (WGI)	Rule of Law (WGI)	Global Peace Index	Homicide rates (UN)	E-government Development Index	
Austria	64	68	70	79	68	68	73	79	63	65	70
Belgium	69	69	60	50	64	58	63	72	47	60	62
Cyprus	53	59	54	49	57	55	55	34	59	33	53
Denmark	88	78	70	61	74	73	76	79	63	69	74
Finland	84	77	70	79	78	79	77	72	49	74	75
France	60	66	57	38	65	54	63	42	56	82	58
Germany	72	73	70	61	72	72	69	64	63	65	69
Greece	29	26	41	24	38	28	37	19	53	52	34
Ireland	66	70	70	69	69	74	68	57	57	64	67
Italy	29	30	44	44	35	40	36	42	62	60	40
Luxembourg	76	75	70	82	70	70	72	57	70	60	71
Malta	43	56	44	71	54	55	60	64	50	43	55
Netherlands	77	74	70	68	76	74	74	57	63	81	72
Portugal	53	56	54	54	52	43	58	72	54	49	54
Spain	49	46	44	37	59	44	52	60	65	73	52
Sweden	82	76	70	69	74	75	74	79	60	70	73
UK	71	71	60	40	70	76	70	49	59	78	66
Bulgaria	29	23	37	28	23	37	23	49	52	25	32
Czech Republic	38	41	54	64	53	53	58	68	60	35	54
Estonia	60	65	50	53	54	71	61	34	14	70	55
Hungary	42	36	60	50	42	42	41	42	34	44	43
Latvia	43	42	44	45	50	58	50	34	22	53	46
Lithuania	47	45	44	54	51	61	51	42	0	55	47
Poland	50	47	57	58	45	53	49	57	62	42	52
Romania	29	28	54	28	20	38	32	57	52	28	35
Slovakia	37	35	60	67	47	49	39	57	53	36	48
Slovenia	47	51	70	55	52	40	53	57	65	42	52
Croatia	35	37	37	46	44	29	35	49	57	39	40
Macedonia	31	34	11	36	27	32	24	19	59	13	29
Turkey	31	29	11	0	36	30	27	0	11	25	22
Montenegro	27	32	37	35	31	14	29	27	50	40	30
Iceland	72	73	70	76	67	63	66	79	69	66	69
Albania	17	9	11	41	15	21	4	34	15	18	17
BiH	24	23	0	21	0	5	14	27	56	13	16
Serbia	26	26	27	32	24	15	16	27	52	25	25

Country abbreviations

EU28	**European Union with the 28 member states**
EU15+2	**the 15 member states before the 2004 enlargement plus Cyprus and Malta**
EU10+1	**the countries of the fifth enlargement in 2004 and 2007 plus Croatia**
CC	**Candidate countries**
PCC	**Potential candidate countries**
BE	**Belgium**
CZ	**Czech Republic**
BG	**Bulgaria**
DK	**Denmark**
D-E	**East Germany**
DE	**Germany**
D-W	***West Germany***
EE	**Estonia**
EL	**Greece**
ES	**Spain**
FR	**France**
IE	**Ireland**
IT	**Italy**
CY	**Republic of Cyprus ***
CY (tcc)	**Zone not controlled by the government of the Republic of Cyprus**
LT	**Lithuania**
LV	**Latvia**
LU	**Luxembourg**
HU	**Hungary**
MT	**Malta**
NL	**Netherlands**
AT	**Austria**
PL	**Poland**
PT	**Portugal**
RO	**Romania**
SI	**Slovenia**
SK	**Slovakia**
FI	**Finland**
SE	**Sweden**
UK	**United Kingdom**
HR	**Croatia**
TR	**Turkey**
MK	**Republic of Macedonia**

About the Catch-Up Index. How is the "Catching up" Measured?

The Catch-Up Index is a composite index, using a specifically designed model developed by EuPI of OSI-Sofia. The Catch Up Index includes 35 countries selected on a political criteria as it covers the 27 EU member states, the 5 candidate and 3 potential candidate countries. The only exception is Kosovo, as there is not enough comparable statistical data available about it and despite the efforts, the lack of data left Kosovo outside of the index.

The metric is based on rescaling the raw data on a scale from 0 to 100 (lowest to highest) to establish each country's score, and ranking each country from 1 to 35 (highest to lowest). The standardized scores make possible different rankings, comparisons, benchmarking, monitoring of performance for countries and groups of countries across categories and indicators and contribute to policy analysis and recommendations.

The Catch-Up Index contains four categories - Economy, Quality of Life, Democracy and Governance for the 35 countries included in the index. There are scores for each category: Economy Score, Quality of Life Score, Democracy Score and Governance Score and each category has an equal weight with the other categories. There is an Overall Score, composed of the scores for the four categories.

Each category is measured through selected indicators and sub-indicators. The various data for the indicators is converted into scores, weighted on the basis of the index methodology. The indicator scores make up the scores for the four different categories. The weights have been attributed to the indicators or sub-indicators by the expert team, based on the importance assigned to them.

The Catch-Up Index was initially designed to capture the progress of the EU10+1 countries in matching the rest of the EU in the categories of Economy, Quality of Life, Democracy and Governance.

But the Index allows for much broader observations and findings to be made by examining the performance of the 35 countries, comparing them across the four categories and 47 indicators and sub-indicators, and eliciting conclusions from the interdependence between the factors that define the performance. The Index allows for what is essentially multi-dimensional mapping of present-day Europe by superimposing the four fundamental categories. The index data do not only indicate a country's progress or degree of similarity relative to its peers, but also how far it is from the desired goals.

Benchmarking the EU10+1

In addition to the ranking of countries according to their score, there are also several benchmarks to help measure the catch up index - the average, maximum and minimum scores by groups. There are four main and one additional such benchmarks. First, there is the EU15+2 Average Score, calculated as the compare means scores of the 15 "old" EU member states plus Cyprus and Malta, which are considered as part of this group too ("Western" countries vs post-communist countries). Second, there is the EU15+2 Max (maximum) score of the highest ranking country in this group. Third, there is the

EU15+2 Min (minimum) score of the lowest ranking country in this group. Fourth, there is the EU10+1 Average Score, calculated as the compare means scores of the 10 "new" EU member states scores. Fifth, there is the EU28 Average Score, calculated as the compare means of the scores of all 27 EU member states.

Being aware of the limitations of Catch-Up Index model and in order to provide readers with the opportunity to take advantage of the Catch-Up Index data, a special online platform has been created at www.TheCatchUpIndex.eu , where users can both view and work interactively with the data. The users of the platform can create their own "catching up" models and comparisons across countries and indicators, and visualize the outcomes in different ways.

The Economy Category: Methodology

The Economy category measures the economic performance and potential of the countries in the index. Each of the four categories in the Catch Up Index are ascribed equal importance in terms of calculating a country's overall score.

The Economy category is measured through a set of nine indicators, each of which captures a different aspect of economic performance. Some indicators gauge more than one aspect of economic performance. The metrics of the indicators are based on 14 sub-indicators, of varying weightings. The specific indicators and the weightings assigned to the sub-indicators reflect the unique model of the Catch Up Index.

The raw data used for the indicators (e.g. GDP per capita or other composite indicator scores or coefficients) are converted into a Catch-Up Index score on a scale of 0 to 100 (lowest to highest) to allow for a standardized score that can be compared across countries or categories and indicators. Each of the indicators has different weight assigned to it, according to its importance in the Catch Up Index model.

Economy Indicators	Sub-indicators	Weight*
GDP per capita	GDP per capita in PPS, EU27=100	25% (0,25)
Government debt	General government debt (% of GDP)	13% (0,125)
Credit ratings	Sovereign credit ratings	13% (0,125)
Employment	Employment rate %	8% (0,083)
Energy Intensity	Energy intensity of the economy	8% (0,083)
Information Society	Information and Communication Technology	8% (0,083)
Research and Development	Patents granted by USPTO per capita	4% (0,042)
	High-tech exports as % of manufactured exports	4% (0,042)
Market development	Doing Business rank	4% (0,042)
	Economic Freedom score	4% (0,042)
Transport infrastructure	Motorways per area 1000 km2	2% (0,021)
	Motorways per 100,000 inhabitants	2% (0,021)
	Other roads per 1000 km2	2% (0,021)
	Other roads per 100,000 inhabitants	2% (0,021)

The weight in percentages is an approximation, and the weight is also provided in fractions (the total sum is 100% or 1).

GDP per Capita (PPS with EU27=100 basis, Eurostat) remains the most important indicator of economic activity and is assigned 25% (0.25) weight in the total Economy category.

Government Debt, measured as a % of GDP, is second in importance with 12.5%. The global economic calamities of recent years, and especially the ongoing debt crisis in Europe, have clearly demonstrated the critical importance of government debt as a factor for the economic vitality of a country.

The **Sovereign Credit Ratings** – or creditworthiness and level of investment risk - of a country are also attributed high importance in the index, with a 12.5% (0,125) weight. The index uses a composite, rescaled score of the ratings of the three major agencies (Fitch, Moody's and Standard & Poors).

Employment, with a weight of 8% (0,083) is a measure of an economy's potential to generate jobs and integrate as much as possible of the labor force in the labor market; this is measured through the share of working-age people in employment.

Energy Intensity, also ascribed an 8% weighting, is a measure of an economy's energy efficiency, calculating energy consumption divided by GDP as kilogram of oil equivalent per €1000. Energy intensity is also an important measure of an economy's competitiveness, because high energy inefficiency incurs more costs in production and services.

Research and Development, again with a weight of 8% (0,083) is a measure of the level of development and the "quality" of contemporary economies, including their competiveness. The index uses two sub-indicators. The first is the number of patents registered from a country with the United States Patent and Trademark Office (USPTO) annually on a per capita basis. The second indicator is the share of high-tech exports in a country's manufactured exports.

The **Market Development** indicator (also 8% (0,083)) is the composite score of two sub-indicators – the World Bank's Ease of Doing Business ranking and the Heritage Foundation/Wall Street Journal Index of Economic Freedom. The latter defines the highest form of economic freedom as "an absolute right of property ownership, fully realized freedoms of movement for labor, capital, and goods, and an absolute absence of coercion or constraint of economic liberty beyond the extent necessary for citizens to protect and maintain liberty itself."

The **Transport Infrastructure** Indicator (8% (0,083)) is a measure of a country's economic development and its potential for economic activity. The index uses four sub-indicators, based on calculating coefficients of motorways and other roads on a per capita and country area basis.

The Democracy Category: Methodology

Catching up in Democracy is essential for the post-communist member states of the EU, particularly given that the Copenhagen accession criteria for EU membership primarily focused on democracy. But although EU membership has often been perceived as a watershed in the political transition of the EU10 group, or even the end of that transition, it now appears that the newer members may not have achieved parity with more developed European nations in their progress in building democratic institutions and societies.

The Catch-Up Index was designed to analyse several aspects of democracy that are of particular significance for the newer member states, and those that are aspiring to be.

The Democracy category has equal weighting with the other three categories in the Catch-Up Index (Economy, Quality of Life and Governance). This category is measured through a set of seven indicators, which use nine sub-indicators. The raw data drawn from opinion polls and other composite indicator scores are converted into the Catch-Up Index score on a scale of 0 to 100 (lowest to highest) to give a standardized score that allows for comparison across countries, categories and indicators. Each of the indicators has a different weight assigned to it according to its importance in the index model.

Democracy Indicators	Sub-indicators	Weight
Democracy Indices	Freedom House score Freedom in the World	20% (0,195)
	Economist Intelligence Unit Democracy Index	20% (0,195)
Media Freedom	Freedom House Freedom of the Press score	10% (0,98)
	Reporters without Borders Press Freedom Index	10% (0,98)
Satisfaction with democracy	Satisfaction with democracy %	10% (0,98)
Trust in People	Trust in people	10% (0,98)
Voice and Accountability	Voice and Accountability - WGI	10% (0,98)
Human Rights	Disrespect for human rights by Global Peace Index	10% (0,98)
E-participation	E-participation index	2% (0,024)

The weight in percentages is an approximation, and the weight is also provided in fractions (the total sum is 100% or 1).

The first indicator used to measure democracy is composed of two established **composite democracy indexes** – those of **Freedom House** and the **Economist Intelligence Unit (EIU)**. Each was attributed very high importance in the Democracy category with 20% (0,195) weight (or 40% for both) because they assess the overall democracy in a country. The Freedom of the World index was used from Freedom House, rather than the specialized post-communist states' Nations in Transit index, because it does not encompass the Western European states. The EIU Democracy Index was used because its scores are more nuanced than the Freedom of the World scores, which allows for better distinction between the quality of democracies in the European states.

Media Freedom was attributed special attention in the Catch-Up Index because the media is essential to the democratic process – especially in the post-communist states. The Catch-Up Index relies again on two established media freedom indexes – of Freedom House and of Reporters without Borders. Each is assigned 10% (0,98) weight, giving the Media Freedom indicator a 20% overall weight.

Satisfaction with Democracy measures the attitude of citizens towards the democratic systems of governance in their countries. This is one of the only two indicators (along with Trust in People) that relies on public opinion surveys (in this case the main source is Eurobarometer), and the scores are based on the proportion of citizens who approve their countries' democratic systems.

Trust in People measures the level of people's trust of those who are outside of their immediate family or close friends. Literature abounds on the importance of trust for democracy - above all Francis Fukuyama's "Trust",– or economy and the successful organization of society. In this case, the Catch-Up Index employs the measure of Trust in People as a proxy for civil society development, given the limitations of available data on similar indicators for all the countries in the index.

Voice and Accountability, with a weight of 10% (0,98) , is a composite indicator of the World Bank's World Governance Indicators (WGI). This includes 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. The WGI scores also use World Bank assessments and reports that are not publicly available.

Respect for Human Rights is also deemed essential for a functioning democracy and carries a weight of 10%. The scores are based on Global Peace Index "Disrespect for human rights" indicator.

E-participation (2% (0,024)) measures the level of participation in decision-making, governance or similar activities that is enabled by Information and Communication Technologies. For example, the facilitation of citizens' political participation through internet or cellular technologies within the broader "e-democracy" concept. Facebook advocacy or the "twitter revolutions" offer specific examples of similar phenomena.

The Quality of Life Category: Methodology

Quality of Life is the category most influenced by the "bottom-up" approach in constructing the index. The metrics of the category have been designed to establish how wealthy people are and to what degree social issues affect them, such as income inequality, risk of poverty and long-term unemployment. The indicators also aim to assess levels of access to higher education and the quality of education available, as well as whether people are living longer, healthier lives with access to good quality healthcare services.

These criteria are prerequisites for individuals to have good quality of life and for the "health" and successful development of society at large. It does not come as a surprise that the majority of the citizens of the newer member states (and the candidates) associate EU membership above all with improved quality of life, at least closer to that of their more established EU counterparts.

The raw data used for the indicators (e.g. life expectancy in years, and other composite indicator scores or coefficients) are converted into the standardized Catch-Up Index score, on a scale from 0 to 100 (lowest to highest), to allow for comparison across countries' categories and indicators. As was the case in the other categories, each of the indicators has a different weight assigned to it, reflecting its importance in the Catch-Up Index model.

Quality of Life Indicators	Sub-indicators	Weight
Welfare of consumers	Actual individual consumption with EU27=100	20% (0,2)
Social issues	Inequality - Gini coefficient	7% (0,067)
	Relative median at-risk-of-poverty gap (%)	7% (0,067)
	Long-term unemployment rate (%)	7% (0,067)
Education	Share (%) of early school leavers	5% (0,05)
	Share of population (%) with university degree	5%(0,05)
	PISA* score in reading literacy	3% (0,033)
	PISA score mathematical literacy	3% (0,033)
	PISA score in scientific literacy	3% (0,033)
Health	Healthy life expectancy at birth in years	5% (0,05)
	Life expectancy in years	5% (0,05)
	Infant mortality by age of 5	5% (0,05)
	EuroHealth Consumer Index	5% (0,05)
Human Development	Human Development Index (UN)	20% (0,2)

The weight in percentages is an approximation, and the weight is also provided in fractions (the total sum is 100% or 1).

Welfare of Consumers is attributed 20% (0,2) weight in the category. It is based on data from Eurostat's Actual Individual Consumption dataset, which is calculated on EU28=100 basis (rescaling each country's data as a fraction of the EU mean).

The **Social Issues** indicator, with a total weight of 21%, comprises three sub-indicators that measure different aspects of social problems in a society. The first assesses social inequality using the Gini coefficient – the greater the inequality, the lower a country's score in the index. The second sub-indicator is based on Eurostat's relative median at-risk-of-poverty gap indicator. The third sub-indicator measures long-term unemployment in society, which signals the existence of more deep-seated social problems that the basic unemployment rate.

The **Education** indicator has been designed to reflect primarily the quality of education, rather than the quantity, given that the GDP share of education or the number of teachers or students do not always correspond to good outcomes. This is especially valid with regard to the new member states, where often inefficient and unreformed systems produce poor results, notwithstanding the funds or manpower channelled into them.

As is the case with many of the index indicators, their data can also be useful in assessing other aspects of the same category or, in this case, other categories. For example, as well as being a key indicator for Quality of life, education is relevant in assessing economic potential, democracy and good governance. The sub-indicator on early school-leavers assesses the share of young people giving up education and training prematurely; this may also help to gauge broader social problems. The second sub-indicator is the share of the population that hold university degrees. The next three education-related sub-indicators are based on the results of the Organisation for Economic Co-operation and Development's ***Programme for International Student Assessment (PISA)***. The PISA scores go beyond the performance of high-school students and survey the broader state of a country's education sector, for example qualification levels of teachers and the quality of universities.

The **Health** indicator is likewise designed to focus more on the outcomes than on less indicative criteria such as share of GDP or the number of medical workers. One sub-indicator is life expectancy, measuring how many years a person is expected to live, while another is healthy life expectancy, specifically taking into account life without major illness. The indicator for infant mortality is also indicative of the broader state of health services or social services in a country (or even the state of society more broadly) because it assesses the likelihood of children surviving to the age to 5. The fourth sub-indicator is a composite of the EuroHealth Consumer Index by the Health Consumer Powerhouse, which measures the quality of healthcare systems in a country (including by outcome).

The United Nations' **Human Development Index** is a composite index measuring life expectancy, literacy, education and standards of living for countries worldwide. It has similar dimensions to the Catch-Up Index, but includes additional data and methodology, which complements the other indicators but does not overlap with them.

The Governance Category: Methodology

The newer and aspiring members typically perceive established EU member states to be well-governed, politically stable, have low levels of corruption, effective governance, a successful rule of law, and an absence of substantial tensions, conflicts and crime. Indeed, from a wider perspective this impression is accurate. The EU is truly an oasis of stable and well-governed states by comparison with some of the more unstable or failing states in other parts of the world. The EU is very much geared toward instilling "good governance" through its common institutions and the acquis communautaire.

But comparisons between EU members and aspiring candidates reveal differences even among relatively homogenous groups. Some of these differences are made strongly apparent, as in the case of the EU's monitoring of the progress of members Bulgaria and Romania in fighting corruption, organized crime and judicial reform, and the conditionality imposed on candidates.

The Catch-Up Index measures the quality of governance in a country through seven indicators based on ten sub-indicators.

Governance Indicators	Sub-indicators	Weight
Corruption	Corruption Perceptions Index - Transparency International	8% (0,08)
	Control of Corruption - World Governance Indicators	8% (0,08)
Political stability	Political instability by Economist Intelligence Unit	8% (0,08)
	Political Stability and Absence of Violence - World Governance Indicators	8%(0,08)
Government effectiveness	Government effectiveness - World Governance Indicators	16% (0,16)
Regulatory quality	Regulatory quality - World Governance Indicators	16% (0,16)
Rule of law	Rule of Law – World Governance Indicators	16% (0,16)
Conflict, tensions and crime	Conflicts and tensions in the country - selected Global Peace Index indicators	8% (0,08)
	Homicide rates per 100,000 population	8% (0,08)
E-government	E-government development index	4% (0,04)
The weight in percentages is an approximation, and the weight is also provided in fractions (the total sum is 100% or 1)		

The **Corruption** indicator is essential for gauging the quality of governance because corruption affects all aspects of the decision-making and implementation process. The Corruption indicator has a weighting of 16% in the Governance category, divided between two sub-indicators – Transparency International's Corruption Perceptions Index and the Control of Corruption dimension of the World Bank's World Governance Indicators. The first indicator measures public perceptions of the level of corruption in a country. The second indicator as defined by its authors "captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests."

The second indicator measures a country's level of **Political stability**, as in the threat of government destabilization through social unrest or unconstitutional or violent means through two sub-indicators. These are the Economist Intelligence Unit's Political Instability Index and the Political Stability and Absence of Violence dimension of the World Bank's World Governance Indicators. The EIU scores "show the level of threat posed to governments by social protest." The World Bank indicator measures "the perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including domestic violence and terrorism." The level of political stability indicates any flaws in governance. Although this indicator also relates to democracy – in terms of the channelling of discontent through the process of representation and problem solving – political stability is more of a measure of governance. The indicator's weight is 16% divided between the two sub-indicators.

Government effectiveness is an indicator of whether governance is being conducted well; the World Bank states that it "captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies." Government effectiveness also has a weighting of 16% in the Governance category.

Regulatory quality is another World Governance Indicators that "captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development." This indicator too has a 16% weighting.

Rule of law is essential for good governance, as the newest EU members and candidates have found out the hard way. The indicator is again based on the World Governance Indicators, which state that it "captures perceptions of the extent to which agents 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, as well as the likelihood of crime and violence."

Conflict, tensions and crime is a composite indicator, based on two sub-indicators relating to a country's crime levels and conflicts and tensions. The conflicts and tensions sub-indicator is based on selected data from the Global Peace Index (Institute for Economics and Peace/Economist Intelligence Unit). The homicide rate on a per capita basis serves as a proxy for measuring the crime levels in a country, because data pertaining to other reported crimes is less easily comparable (different definitions or practices for registering crimes) or country data is unavailable. The indicator's weight of 16% is divided between the two sub-indicators.

The **E-government** indicator is based on the UN's E-government surveys and scores. It is included in the index because it is a measure of government efficiency and delivery of services to citizens, and because it facilitates transparency and accountability as the world grows more connected. Moreover, e-government indicates the level of development of contemporary societies. As the UN survey has identified, the scores comprise two basic aspects of e-government, 'government to citizen' (G to C) and 'government to government' (G to G), with a smaller element of 'government to business' interactions. Given that e-government is indicative of many aspects of good governance, but not indispensable, it is ascribed a weight of 4%.

Note on Data Sources, Timeframe and Replacing Missing Data

The Catch-Up Index data collection relied on single sources for each of the indicators, but in case such data was missing, compatible data from other sources based on the same methodology was included. If country data for a specific year was missing, data from the closest period was included in the Index. In case there was no compatible data, the data imputation method was used as explained in the methodological notes. The missing data was replaced using either the statistical procedure, described in the annex or in a limited number of cases - expert-based imputations, i.e. missing data for a given country was replaced with data for a country with very similar characteristics.

Where a single sub-indicator included several sources or the data was not numerical (e.g. Credit Agencies Index; Doing Business ranking), the data was rescaled in advance by the project team before being recalculated into z-scores.

The data used is the most recently available from the period 2014-2015, but not later than November 2015, so there is a necessarily a time lag in the index.

Economy Indicators	Sub-indicators	Weight	Sources
GDP per capita	GDP per capita in PPS with EU27=100	0,250	Eurostat, European Central Bank, national statistics
Government debt	General government debt (% of GDP)	0,125	Eurostat, national statistics
Credit ratings	Sovereigns credit ratings	0,125	Fitch, Moody's, Standard and Poor's (own calculations of rescaled credit ratings)
Employment	Employment as percentage of population, age group 15-64	0,083	Eurostat, national statistics
Energy Intensity	Energy intensity of the economy	0,083	Eurostat, national statistics
Information Society	Information and Communication Technology	0,083	ICT Development Index, International Telecommunication Union
Research and Development	Patents granted by USPTO per capita	0,042	United States Patent and Trademark Office
	High-tech exports as % of manifactured exports	0,042	World Bank
Market development	Doing Business rank	0,042	Ease of Doing Business, World Bank (Rescaled ranking)
	Economic Freedom score	0,042	Index Economic Freedom, Heritage Foundation and Wall Street Journal
Transport infrastructure	Motorways per area 1000 km^2	0,021	Eurostat, national statistics
	Motorways per 100000 inhabitants	0,021	Eurostat, national statistics
	Other roads per 1000 km^2	0,021	Eurostat, national statistics
	Other roads per 100000 inhabitants	0,021	Eurostat, national statistics

Democracy Indicators	Sub-indicators	Weight	Source
Democracy Indices	Freedom House score Freedom in the World	0,195	Freedom in the World, Freedom House
	Economist Intelligence Unit Democracy Index	0,195	Democracy Index, Economist Intelligence Unit
Media Freedom	Freedom of the Press score by Freedom House	0,098	Freedom of the Press, Freedom House
	Press Freedom Index by Reporters without Borders	0,098	Press Freedom Index by Reporters without Borders
Satisfaction with democracy	Satisfaction with democracy %	0,098	Eurobarometer, European Values Study, World Values Survey
Trust in People	Trust in people	0,098	European Quality of Life Survey by Eurofound, European Values Study, World Values Survey
Voice and Accountability	Voice and Accountability - WGI	0,098	Voice and Accountability of the World Governance Indicators, World Bank
Rights	Disrespect for human rights by Global Peace Index	0,098	Disrespect for human rights indicator, Global Peace Index by the Institute for Economics and Peace
E-participation	E-participation index	0,024	E-government survey, United Nations Department of Economic and Social Affairs

Quality of Life Indicators	Sub-indicators	Weight	Sources
Welfare of consumers	Actual individual consumption with EU27=100	0,200	Eurostat, national statistics
Social issues	Inequality - Gini coefficient	0,067	Eurostat, national statistics
	Relative median at-risk-of-poverty gap (%)	0,067	Eurostat, national statistics
	Long term unemployment rate (%)	0,067	Eurostat, national statistics, UNDP
Education	Share (%) of early school leavers	0,050	Eurostat, national statistics, UNDP
	Share of population (%) with university degree	0,050	Eurostat, national statistics, UNDP
	PISA score in reading literacy	0,033	OECD Programme for International Student Assessment (PISA)
	PISA score mathematical literacy	0,033	OECD Programme for International Student Assessment (PISA)
	PISA score in scientific literacy	0,033	OECD Programme for International Student Assessment (PISA)
Health	Healthy life expectancy at birth in years	0,050	World Health Statistics, World Health Organization
	Life expectancy in years	0,050	World Health Statistics, World Health Organization
	Infant mortality by age of 5	0,050	World Health Statistics , World Health Organization
	EuroHealth Consumer Index	0,050	EuroHealth Consumer Index, Health Consumer Powerhouse
Human Development	Human Development Index	0,200	Human Development Index, United Nations

Governance Indicators	Sub-indicators	Weight	Sources
Corruption	Corruption Perception Index	0,080	Corruption Perception Index, Transparency International
	Control of Corruption - World Governance Indicators	0,080	Control of Corruption - World Governance Indicators, World Bank
Political Stability	Political instability by Economist Intelligence Unit	0,080	The Political Instability Index, Economist Intelligence Unit
	Political Stability and Absence of Violence - World Governance Indicators	0,080	Political Stability and Absence of Violence - World Governance Indicator, World Bank
Governement Effectiveness	Governement Effectiveness - World Governance Indicators	0,160	Governement Effectiveness - World Governance Indicators, World Bank
Regulatory Quality	Regulatory Quality - World Governance Indicators	0,160	Regulatory Quality - World Governance Indicators, World Bank
Rule of Law	Rule of Law - World Governance Indicators	0,160	Rule of Law - World Governance Indicators, World Bank
Conflict, tensions and crime	Conflicts and tensions in the country - selected Global Peace Index indicators	0,080	Conflicts and tensions in the country, based on selected Global Peace Index (GPI) indicators, GPI is created by the Institute for Economics and Peace
	Homicide rates per 100,000 population	0,080	United Nations Office on Drugs and Crime
E-government	E-government development index	0,040	E-government Development Surveys, United Nations

Methodology of the Statistical Analysis for the Catch-Up Index

1. BASIC INDICATORS. SOURCES OF INFORMATION

The Catch-Up Index uses 47 basic indicators for 35 European countries. The data is gathered from different sources. Appendix 1 contains descriptions for each of the basic indicators as well as the time period of the data and their respective sources. The indicators are divided thematically into four categories:

- Economy – 14 indicators;
- Democracy – 9 indicators;
- Quality of Life – 14 indicators;
- Governance – 10 indicators.

2. PROCEDURE FOR REPLACING MISSING DATA (DATA IMPUTATION)

The basic information represents a table (a matrix), size 35 x 47, i.e. 47 indicators for 35 countries, which contain 1,645 absolute values. About 0.5% of them are missing values either because there is no such information gathered or there is no up-to-date data. In these cases, the procedure for data imputation to replace missing data – values – was applied. The procedure was done separately for each of the four basic categories.

ALGORITHM FOR DATA IMPUTATION

a. Any of the four categories that contain a basic indicator with a missing value is fixed. It represents a matrix with a size of 35 multiplied by the number of basic indicators, where the countries are in the rows and the indicators are in the columns.

b. All indicators (rows) that contain at least one missing value are deleted, thus creating a new matrix with the same number of rows and a smaller number of columns (k).

c. Each of the 35 countries included in the index is a point in the k-dimensional space. The Euclidian distances between the side with a missing value and all the other sides are then calculated.

d. After the minimal Euclidian distance is calculated, the result is checked against the existing data for the remaining 34 countries and this value is taken to replace the missing value.

e. The steps are then repeated until all missing values of the basic indicators in a given category are replaced.

3. CALCULATION OF STANDARDIZED VALUE (Z-SCORES)

The Catch Up Index uses basic indicators with different raw data (percentages, diverse index scores, years, etc.). This necessitates the standardization of the values according to a statistical procedure, which recalculates them in one and the same scale and at the same time preserves the order and proportions between them. The standardizing is done following the normalization method of z-scores, which uses mean weighed score and standard deviation.

ALGORITHM FOR CALCULATING THE STANDARDIZED VALUES OF THE BASIC INDICATORS (Z-SCORES)

1) The mean arithmetic values ***mean_j*** for the countries ***x_ij*** are calculated for each of the basic indicators, according to the formula:

mean_j = Σ (x_ij)/ 35

where ***j*** varies from 1 to 47 (the total number of basic indicators), and i changes from 1 to 35 (the total number of countries).

2) The dispersions for the values on sides **x_i** is calculated for each of the indicators:

sigma_j = Σ [(x_ij−mean_j)^2] / (N−1),

where ***j*** varies from 1 to 47, and i varies from 1 to 35.

This quantity shows how diverse are, on average, the different cases from their mean value.

3) The standardized values – so-called *z-scores* – are calculated:

z_ij = (x_ij−mean_j) / √sigma_j.

Through this procedure the distribution of the values for the countries for each of the indicators is translated and the mean 0 and dispersion 1 are calculated, while the order and proportions between the values for the different countries are preserved.

In order to transform the standardized values into scores on a scale from 0 to 100, one more transformation is necessary:

z_ij = z_ij * 20 + 50.

The values smaller than 0 and bigger than 100 ("extreme values"), i.e. those different from the mean value of more than 2.5 standard deviation receive scores 0 and 100, respectively.

The standardized values, achieved as a result of the calculations above, are suitable for further procedures. There is a simple correspondence between these scores and the absolute values (the raw data) of the basic indicators and the only exceptions are the "extreme values" or so-called outliers.

4) Weighting the standardized values. Formation of the four categories

Each of the four categories – Economy, Quality of Life, Democracy and Governance contain different numbers of basic indicators with different levels of importance. The level of importance is defined by the authors of the index. That is why the online platform of the Index (**www.TheCatchUpIndex.eu**) offers two options for its users.

a. The standard index is calculated on the basis of the already defined weights of the basic indicators;
b. The creation of custom index – My Index in the online platform – for which each individual user can define the weights for the indicators.

The weights for each indicator, ascribed by the research team, can be found in this section. For each of the four categories, the weights represent a column vector consisting of the respective number of basic indicators. When calculating the weighted standardized values, the formula for matrix multiplication is used. The matrix contains the non-weighted standardized values with rows representing the countries, the columns the basic indicators and the vector the weights. For each separate country, the procedure is to calculate the weighted sum.

5) Formation of the composite Catch Up Index and its Overall Score

The composite Catch Up Index is calculated as an un-weighted mean of the values of each of the four basic categories for each of the 35 European countries included in the index. In other words, each of the four basic categories is equal in importance in respect to the composite Catch Up Index.

Overall_score_i = (Economy_score_i + Quality_of_life_score_i + Democracy_score_i + Governance_score_i) / 4,

where ***i*** varies from 1 to 35 (the total number of countries in the model).

The resulting index is at the basis of the overall ranking of the countries and is subjected to further statistical processing (cluster analysis, correlation analysis, tests for statistical significance, trend analysis).

6) Cluster analysis

The research included hierarchical agglomerative cluster analysis of the Complete Linkage (Furthest Neighbor) with the help of the SPSS statistical package for analysis and processing of data. The metric system used is the standard Euclidian distance.

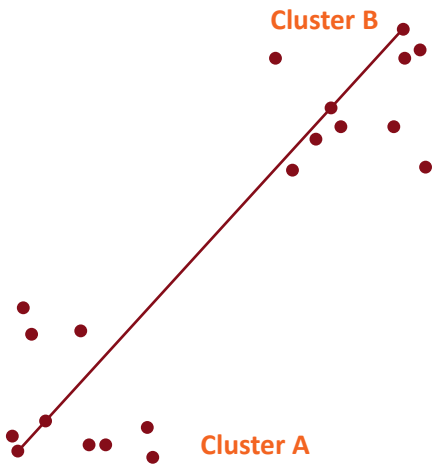
ALGORITHM OF THE CLUSTER ANALYSIS

a. First, each country is the defined as the only one in a single group – i.e. cluster.

b. Second, the standard Euclidian distances (2-norm distance) are calculated between the values (the scores) of each pair of countries with the aim to group the countries with the most similarities in one group in relation to their values – the overall score of the Catch Up Index or the scores in any of the four categories.

c. The agglomeration of the clusters continues with each other step until all the countries are included in one common group. This process is defined by the distance between two clusters. In the case of the Complete Linkage (Furthest Neighbor) clustering the distance is defined through the maximum standard Euclidian distance between elements from the two clusters.

a. **D(r,s) = Max {d(i,j)** : where element ***i*** belongs to cluster ***r***, and ***j*** to cluster ***s***}



d. The decision for the number of clusters is taken by the researcher, in accordance with the desired maximum distance between the elements in each cluster. The bigger the distance, the smaller the number of clusters.

e. The cluster analysis is best represented in a gendrogram, which shows the distances between the different clusters as well the elements they are composed of.

7) Tests for statistical significance of differences. The five point rule

The data on the basis of which the Catch Up Index is calculated are bound to have certain errors. The reason is that some of the basic indicators are based on sociological surveys, others though objective (e.g. GDP per capita) also contain certain errors as a result of the method of their calculation. The procedure for missing data replacement also contributes to the size of the overall error. This necessitates the implementation of tests for statistical significance of differences (compare means) between the different standardized values (z-scores) of the Overall Score and the scores of countries in different categories. The results of these tests show that a difference of five or less standardized scores is not statistically significant with a significance level of $\alpha = 0.05$. This means that with a *confidence level* $\gamma = 1-\alpha = 0.95 = 95\%$ it can be claimed that the standardized values of the countries in the Catch Up Index and the four categories vary within ±5 **z**-points. This conclusion should be taken into account when analyzing the results of the cluster analysis.

8) Correlation analysis

The Pearson correlation coefficients are calculated for each of the pairs in the vectors: Overall Score, Economy Score, Quality of Life Score, Democracy Score and Governance Score. They demonstrate *that at a significant level* **α** = 0.01, each of the two pair vectors have strong linear correlation, with each correlation coefficients are bigger than 0.9.

9) Graphs, linear trends and their confidence intervals

The direct consequence of the correlation analysis is that between two of the five indices – i.e. *Overall Score, Economy Score, Quality of Life Score, Democracy Score and Governance Score* – there is a strong direct correlation, which is represented by a corresponding linear trend (straight line with a positive slope).The coefficients in the equations of these straight lines are calculated using the method of linear regression. Each of the straight lines should be observed and analyzed in the corresponding confidence interval, which is determined by the value of their determination coefficient (*R-square*), *which in this case is equal to the square of the respective Pearson correlation*.

The European Catch-Up Index Project

CATCH-UP INDEX METHODOLOGY

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OPEN SOCIETY INSTITUTE SOFIA

European Policies Initiative

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About EuPI

The European Policy Initiative (EuPI) of OSI-Sofia aims to stimulate and assist new European Union Member States from Central and Eastern Europe to develop capacity for constructive co-authorship of common European policies at both government and civil society level. As a priority area of the European Policies Program of the Open Society Institute – Sofia, EuPI will contribute to improving the ability of new member states to effectively impact common European policies through good quality research, policy recommendations, networking and advocacy. The initiative operates in the ten new member states from CEE through a network of experts and policy institutes.

Web-site http://www.eupi.eu
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MAIN RESEARCH REPORTS:

The Gravity Effect: Findings of the European Catch-Up Index 2014 contains the findings of the first edition of the Catch-Up Index 2014.

"It's a Process: Findings of the European Catch-Up Index" contains the findings of the first edition of the Catch-Up Index 2013.

"Aftershocks: What Did the Crisis Do to Europe?" contains the findings of the first edition of the Catch-Up Index 2012.

"State of the Union: A Big Bang Theory of Europe" contains the findings of the first edition of the Catch-Up Index 2011.

"The Unfinished Business of the Fifth Enlargement Countries" analyzes the problems faced by the ten new member states after their accession to the EU in eleven policy areas including political development, the economy, the healthcare system and education.

A series of reports **"The EU New Member States as Agenda Setters in the Enlarged European Union"** look at the positions of the new Central and Eastern European EU Member States on a selected number of issues on the EU agenda in seven policy areas: economic issues, minority integration, energy and climate, common agriculture policy, foreign and security policy, justice and home affairs and institutional issues.

The publication **"Economic and Political Challenges of Acceding to the Euro area in the post-Lehman Brothers' World"** (Summary report and nine Country Reports) is developed within the project "Economic and Political Challenges of Acceding to the Euro area in the post-Lehman Brothers' World".

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A special online platform was created at **www.TheCatchUpIndex.eu**, where users can view and work interactively with the data of the index, make comparisons across countries and indicators and visualize the outcomes in different ways.

There are basically three modes of usage. There is the Catch-Up Index standard format, which is generated on the basis of EuPI'sown model. Alternatively, users can produce their own custom catch-up index by selecting categories and indicators and changing their weights. The third usage mode allows for country by country comparison across selected indicators or benchmarks.

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