A comparative analysis of competition across the EU internal market – evidence from 11 EU member states

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Abstract:

European economic integration has undoubtedly realised notable positive achievements in the past decades. However, the recent financial economic crisis has brought all the imperfections of the European economic construct to the surface. The EU internal market itself can eventually be scrutinised: whether it really forms a single economic bloc where economic activities are facilitated by competitive forces having an impact overarching the boundaries set by national markets and business cultures. By analysing a range of secondary data, differences in the main drives behind economic performance, and thus differences in efficiency and general competitiveness, appear to exist and endure, or even deepen along certain friction lines, especially between the core and the periphery of the EU. By conducting a multi-language cross-country survey among proprietors and leading managers of enterprises from 11 EU member states, the following aspects of the institution of market competition are examined in detail: What are the preferred and accepted ways of gaining competitive advantage across the EU? How do enterprises relate to competition regulation? Which are the acceptable ways of price formation? What are the attitudes towards aggressive market behaviours? What behaviour is expected from firms in a dominant position? What is the state's role in relation to market competition? How do enterprises judge decent competition, performance competition, or the cooperation of competitors? What do entrepreneurs and managers think about the role of knowledge in market competition? And last but far not least, are there any noticeable differences in the answers to these question along the borders of the countries surveyed?[3]

Keywords: competition, competitiveness, European Union

JEL-codes: F15, L10, O52, O57, P52

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Introduction

Competition in the EU internal market is in the focus of our research. In our study, we make an attempt to combine various research tools in order to contribute to our knowledge in the field. Firstly, we examine the institution of competition at the theoretical level. Our main theoretical setting is new institutional economics but we strive for remaining open to other branches of economic science – very much in line with the very nature of new institutional economics itself.

Competition can be studied with an applied economics approach as well. In particularly, we give a brief overview of competition within the framework of European integration, by now interpretable in historical dimensions. Evidently, the common, then single, then internal market of the EEC/EU is the subject of our analysis. Just like in many other areas, the crisis has had substantial impacts on the internal market of the EU as well; we intend to give a first insight into these impacts.

The concepts of competition and competitiveness are closely related: the more competitive an actor, the better its performance in the competition. Competitive forces are thus the main drivers of economic development, and intensive competition yields efficiency gain. Based on this logic, we include EU member states' competitiveness in our analysis. We rely on the results of the executive opinion survey carried out by the World Economic Forum (WEF) and the methodology of the Global Competitiveness Index (GCI) generated from these results. Nevertheless, we go further with our research by generating three new indicators from the WEF sub-indicators: the competitiveness of EU member states along the dimensions of the state, the enterprise (sector), and the market itself, as we believe that these are the basic concepts, along which competition can be assessed.

On the other hand, based on the Schumpeterian idea that the heart of economic development is the entrepreneur, we use another indicator to execute a comparative analysis of competition in the EU internal market: the Global Entrepreneurship and Development Index (GEDI) assesses entrepreneurial attitudes, abilities, and aspiration. We were rather keen on analysing the relations between the different competitiveness indicators we generated, and the GEDI. Our findings, we believe, are exciting, and match quite well with the implications of new institutional economics, namely that there is an identifiable overall institutional quality, and it matters greatly. Last but not least, we compare theory and secondary data analysis with the outcomes of our survey.

Competition as an institution

New institutional economics, as widely known, interprets the concept of institution as a set of norms aiming at directing individual actions in a certain way. As North (2005) describes them, "institutions are the rules of the game – both formal rules, informal norms and their enforcement characteristics. Together they define the way the game is played." (p.22.) So, an institution may be formal or informal. Laws, contracts and other tools ensuring the enforcement of the norms are usually also included (Tsuru 1993). Economist, by now, largely agree that institutional quality matters more than geography or trade in explaining economic growth (Rodrik et al. 2002). Among the institutions, we believe, the quality of competition is crucial.

Greif (2005) points out that “markets rest upon institutions.” (p.727.) He also identifies those so-called “market-supporting institutions” (mimeo). Nevertheless, the recognition of competition as an institution itself dates back as far to the second half of the 19th century. At that time, with the unfolding of modern capitalism in the Western world, competition was, in many markets, started to be crowded out by dominant private actors. These processes brought about the revelation that competition is a public good and, as such, needs protection (Vörös 1991). Evidently, this task was delegated to the state and, consequently, competition policy has become one of the most significant areas of the activities of the modern state (Miskolczi Bodnár 2004). As markets are dynamic, active competition policy is legitimate (Pelle 2011), although there are quite a few other factors and mechanisms destabilising the dominant position and enforcing competition in the markets (Elsner et al. 2014).

The concept of competition being an institution has deep roots in the German history of economic thought as well. The Freiburg School was established in 1933 in order to find the constitutional framework of a free economy and society. The early Freiburg scholars were convinced that that freedom and order served one another (Woll 1989) and they regarded (free) market itself as a constitutional-institutional order. Accordingly, in the Freiburgian intellectual setting, economic development can be achieved through the development of the institutional framework of (economic and legal) order (Albert 2005).

Freedom (of competition), on the other hand, is closely linked to democracy. Western Europe, which is the cradle of European integration, has historically been the forerunner in democratisation as well (Acemoglu – Robinson 2000). However, there are countries in the EU where democracy is much younger – what is the state of competition and competitiveness in these member states? We will soon see.

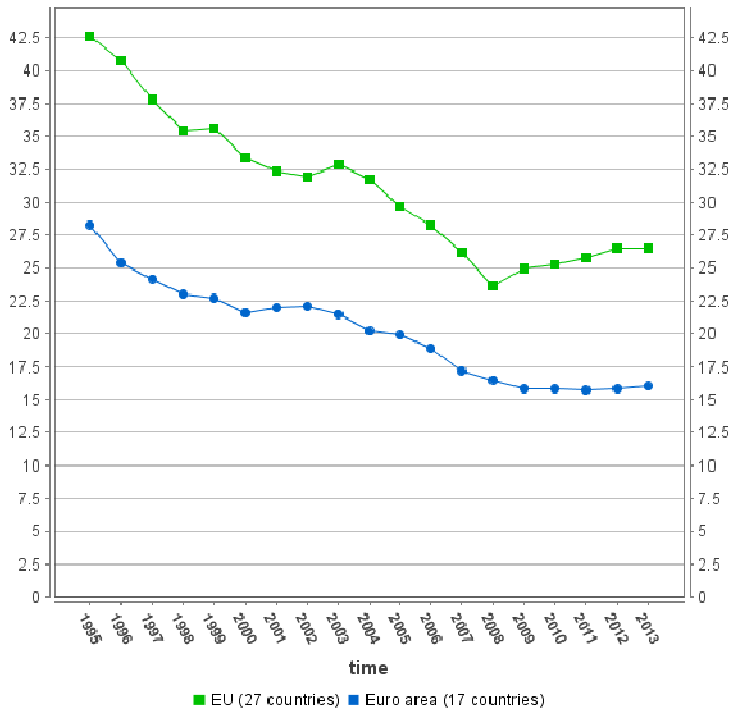
Competition policy is mainly shaped and implemented through the development and enforcement of competition law. Competition law is often regarded as the constitution of the market because, “in a market economy, economic regulation is substantially realised through market regulation” (Kiss 2008, p.14). The task of the regulator is to protect the institution of competition by positive incentives on one hand (e.g. introduction or encouragement of competition, creation of uniform conditions, promotion of risk-taking and innovation), and by decreasing or ceasing negative effects on the other hand (e.g. elimination of barriers to entry, minimisation of exit costs).

Coase (2005) warned that economic and legal systems were closely linked and that economists should take that into account. Posner (2001) based his work on the Coase Theorem, namely that the transaction costs of the application of the certain law should be set against its expected benefits. Therefore, legislation itself should undergo economic analysis, which brings up the question of the efficiency of competition regulation (Don – Kemp – van Sinderen 2008). According to the theory of economics of regulation, legislative activities should be optimised (McNutt 2005). In particular, market investigations have to be carried out, production costs have to be estimated and the comparison of various actors has to be executed by the competition authority (Streit – Wegner 1989). Transaction costs are nevertheless reduced if a workable price system based on market competition is applied (Oberender – Christl 2000).

Competition in the EU internal market

As for the European Union, it has operated a common competition policy from the beginning.[4] Moreover, the common competition policy has been rather stable along the decades; it is sometimes called the "éminence grise" of European integration (Török 1999). The prohibition on restrictive agreements, on the abuse of dominant position, and on state aid has formed part of primary law from the adoption of the Treaty of Rome in 1957. Moreover, the contents of this primary law has not changed, except for the switching of the original phrase 'common market' to 'single market' after the Single European Act, and then to 'internal market' with the adoption of the Lisbon Treaty in 2007.[5] The change of the expression implies changes in the concept: while the original common market rested on the so-called 'four freedoms' (free movement of goods, persons, services and capital), the single market agenda was mostly shaped by those ca. 300 directives that had to be adopted by member states. The current concept of the internal market is a manifestation of the intention of the European Commission (and backed by many experts) to view the European Union as a unit, with its own internal (and external) characteristics and processes.

Figure 1: Price convergence between EU member states, 1995-2013*



* Coefficient of variation of comparative price levels of final consumption by private households including indirect taxes. Comparative price levels are the ratio between Purchasing power parities (PPPs) and market exchange rate for each country.

Source: http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&plugin=1&language=en&pcode=tec00121

In fact, integration has proceeded for decades and in many terms, including the convergence of prices (Figure 1). The 2008 financial and economic crisis was the first serious

[4] Obviously, we refer to the European Economic Community for the period before 1993.

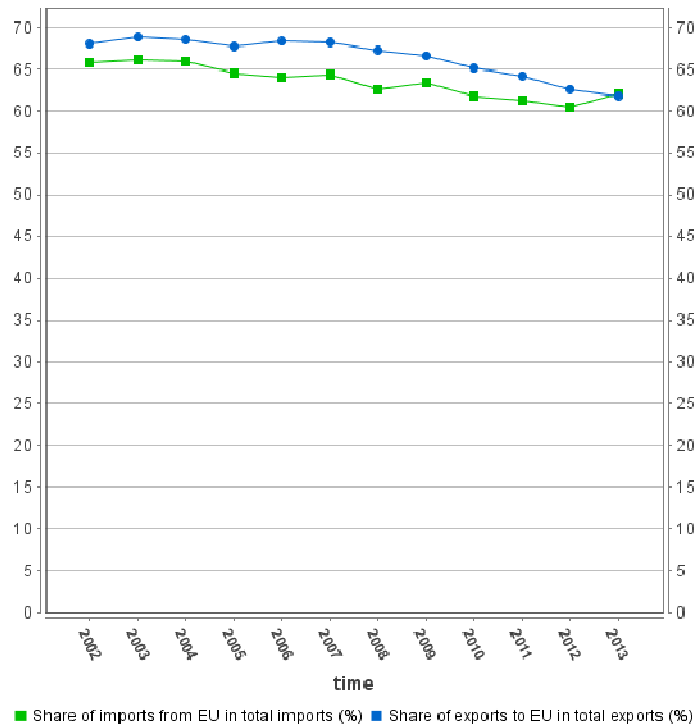
[5] The Treaty on the Functioning of the European Union entered into force on 13 December 2007.

breakpoint in many aspects. Even if so, price convergence within the Eurozone continued (or, at least, did not turn into divergence) during the crisis, reaching a 16 per cent coefficient variation by 2013.

Nevertheless, price convergence is one of the very few areas in which the crisis did not cause serious deterioration. The share of intra-EU trade, for example, has overall been decreasing in the last decade; only imports in 2013 have shown a change in that tendency (Figure 2).

A deeper analysis of the manifold impacts of the crisis on the European Union and its member states is out of the scope of this study. Extensive literature is available in the field. What we emphasise at this point is that the crisis has brought many of the imperfections of the European economic construct to the surface. In this context, the stability of the competition policy framework and the endurance of the achievements in the Eurozone price convergence are to be appreciated and may imply that the very fundaments of European economic integration had been designed in an appropriate way. This implication may give courage to the pro-integrationists in Europe.

Figure 2: Share of trade with EU27, 2002-2013



Source: http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&plugin=1&language=en&pcode=tet00037

Competitiveness of EU member states – some new insights

In March 2010, after the expiration of the Lisbon strategy, the EU launched its Europe 2020 strategy (EC 2010) to establish the conditions for a smart, sustainable and inclusive growth in the EU by 2020. In parallel, the WEF has launched its 'Europe project' (Schwab 2012) in the framework of which the Europe 2020 Competitiveness Report is published

biannually. So far, two such reports have been released (WEF 2012, 2014). These can be considered as independent monitoring reports of the Europe 2020 strategy.

Without going into a detailed analysis of the 2014 data (Table 1), we can see that the overall score in 2014 ranges between 5.70 (Finland) and 3.64 (Romania). This is a huge difference between the best and the weakest (2.06 points on the 1-7 scale), which shows that there is a large dispersion in EU member states' competitiveness. There appears to be both an East-West and a North-South divide within the EU.[6]

Table 1: Europe 2020 Competitiveness Index rankings and scores (1-7, 7: best)

Country	*Overall rank 2014 (1-28)*	*Overall score 2014*
Finland	1	5.70
Sweden	2	5.55
Netherlands	3	5.41
Denmark	4	5.32
Germany	5	5.28
Austria	6	5.16
United Kingdom	7	5.13
Luxembourg	8	5.07
Belgium	9	4.93
France	10	4.81
Ireland	11	4.75
Estonia	12	4.74
Spain	13	4.47
Malta	14	4.44
Portugal	15	4.44
Slovenia	16	4.43
Lithuania	17	4.38
Czech Republic	18	4.33
Latvia	19	4.32
Cyprus	20	4.22
Italy	21	4.05
Poland	22	3.97
Slovakia	23	3.91
Croatia	24	3.87
Hungary	25	3.83
Greece	26	3.79
Bulgaria	27	3.75
Romania	28	3.64

Source: WEF 2014

Nevertheless, we were interested in the elements of competitiveness that are related to competition in the EU internal market. Accordingly, we created three new indicators: the competitiveness of states, enterprises, and markets of EU member states. We did so using the WEF's data and the WEF's methodology applied for similar 'secondary' indexes (e.g. the GCI and the Europe 2020 Competitiveness Index). In particular, we selected the sub-

[6] For an in-depth discussion of the competitveness divide problematique, see Pelle – Végh (2014).

indicators of the WEF GCI shown in Tables 2-3-4. Our selection was based on intuition. We named the new indicators ‘State’, ‘Enterprise’, and ‘Market’.

Table 2: GCI sub-indicators of ‘State’ competitiveness (1-7, 7: best)

Number in GCI	*Name of sub-indicator in GCI*
1.05	Irregular payments and bribes
1.07	Favouritism in decisions of government officials
1.09	Burden of government regulation
1.10	Efficiency of legal framework in settling disputes
1.20	Protection of minority shareholders’ interests
5.03	Quality of the educational system
5.05	Quality of management schools
6.03	Effectiveness of anti-monopoly policy
6.09	Prevalence of trade barriers

Source: WEF 2013

Table 3: GCI sub-indicators of ’Enterprise’ competitiveness (1-7, 7: best)

Number in GCI	*Name of sub-indicator in GCI*
1.17	Ethical behaviour of firms
1.19	Efficacy of corporate boards
11.02	Local supplier quality
12.01	Capacity for innovation
12.03	Company spending on R&D
7.06	Pay and productivity
7.07	Reliance on professional management
8.01	Availability of financial services
9.01	Availability of latest technologies

Source: WEF 2013

Table 3: GCI sub-indicators of ‘Market’ competitiveness (1-7, 7: best)

Number in GCI	*Name of sub-indicator in GCI*
11.04	Nature of competitive advantage
11.04	Production process sophistication
12.06	Availability of scientists and engineers
5.07	Availability of research and training services
5.08	Extent of staff training
6.01	Intensity of local competition
6.02	Extent of market dominance
6.15	Degree of customer orientation
6.16	Buyer sophistication

Source: WEF 2013

In order to receive the values for the new indicators, we applied the formula that the WEF itself uses in calculating its secondary indexes:

(country score – sample minimum) / (sample maximum – sample minimum)

As a consequence of the very nature of the formula, for all the 3x9 sub-indicators, the value is 1 for the best-performing country, and 0 for the worst-performing one.

Next, we calculated the (unweighted) arithmetic averages of these values, for all countries. As a result, we could draw up the EU member states' positions along their state, enterprise and market competitiveness (Table 4).

Table 4: EU member states' positions along their state, enterprise and market competitiveness, 2013-2014

	State		*Enterprise*		*Market*	
Country	*Calculated score*	*Rank*	*Calculated score*	*Rank*	*Calculated score*	*Rank*
Austria	0.57722095	11	0.73452858	9	0.80898678	4
Belgium	0.65131778	8	0.74020806	7	0.79374302	5
Bulgaria	0.13995800	26	0.16094115	26	0.09454911	27
Croatia	0.16946417	25	0.23821649	24	0.13560834	26
Cyprus	0.59505293	10	0.32271615	20	0.43243083	15
Czech Republic	0.22062873	22	0.44376715	15	0.43211452	16
Denmark	0.62409616	9	0.73926086	8	0.69498248	8
Estonia	0.56552230	12	0.58862180	12	0.36638852	18
Finland	0.98312820	1	0.93457956	1	0.81590192	2
France	0.54346863	14	0.65393521	10	0.59652633	11
Germany	0.65576433	7	0.83613916	3	0.85891692	1
Greece	0.19364823	23	0.13424087	27	0.25444029	23
Hungary	0.24813735	21	0.22467896	25	0.17878811	25
Ireland	0.69090940	6	0.63415114	11	0.66218757	9
Italy	0.18511585	24	0.23964217	23	0.48787435	13
Latvia	0.34078484	17	0.42445567	16	0.30684251	21
Lithuania	0.31619029	18	0.48129728	13	0.36182233	19
Luxembourg	0.70869584	5	0.79194881	6	0.66188596	10
Malta	0.55342270	13	0.45511801	14	0.49091872	12
Netherlands	0.81749837	3	0.81169199	5	0.81305629	3
Poland	0.25592192	20	0.30343870	21	0.37355914	17
Portugal	0.44423910	15	0.41262099	17	0.35426995	20
Romania	0.09997932	28	0.08589199	28	0.05125716	28
Slovakia	0.10998067	27	0.33416060	19	0.21748203	24
Slovenia	0.26731728	19	0.26831017	22	0.27571933	22
Spain	0.43147722	16	0.38571820	18	0.44461836	14
Sweden	0.82120616	2	0.86283055	2	0.79280684	6
United Kingdom	0.73209723	4	0.82714142	4	0.76476741	7

Source: own calculations

The data already give us some insight into the competitiveness of EU member states along the above mentioned dimensions. Firstly, along the 'State' and 'Enterprise' dimensions, Finland and Sweden are the best performers. In the 'Market' dimension, Germany scores highest and thus ranks first. Secondly, Northern and Western European member states tend to be in the top half while Southern and Eastern European member states tend to be in the bottom half. There are a few exceptions, though. Cyprus' rank (10) along the 'State' dimension, Estonia's rank (12) in the 'Enterprise' dimension and Malta's rank (12) along the 'Market' dimension are outstanding. We hereby mention that these countries are rather small and Cyprus and Malta, although Southern European new member states, have never been part

of the Socialist block of countries while Estonia has, from the moment of gaining its independence in 1991, strived very much for earning a position in the club of European democratic countries with a free market.

On the other end of the ranks, Bulgaria and Romania tend to be the last ones (26 and 28, 26 and 28, 27 and 28 respectively, along the three dimensions), in the companion of Croatia, the Slovak Republic and Hungary, from the ex-socialist Eastern member states. But, Italy (rank 24 in 'State' competitiveness and 23 in 'Enterprise' competitiveness) and Greece (27 in 'Enterprise' competitiveness and 23 in the other two lists) are also on the lower end of the ranks – Italy is perhaps more surprising and rather sad.

Entrepreneurship in EU member states

Besides competitiveness, we opened another dimension in our research: entrepreneurship. Our decision to do so was inspired by Joseph Schumpeter. In his work The Theory of Economic Development, Schumpeter pointed out that economic development is realised under constantly changing institutional conditions and historic circumstances and that the core actor of development is the entrepreneur who realises new combinations of resources and processes; this is innovation (Schumpeter 2004).[7] The entrepreneur is a dynamic actor but his creativity and imagination is more likely to unfold if the conditions for it are untroubled, compared to the situation when he has to dedicate his energies to constantly and necessarily meeting the challenges of competition.

Regarding the assessment of entrepreneurship in EU member states, we relied on the GEDI index and its three pillars. The GEDI methodology was developed by the Global Entrepreneurship and Development Institute between 2008 and 2011.[8] The index was in fact the outcome of a research that had aimed at identifying the factors enhancing sustainable job creation and economic progress. Currently 120 countries of the world are assessed by the Institute. The first GEDI report was issued in 2011; every year, a new issue follows. In our study, we used the data of the latest report, the 2014 edition (Ács – Szerb – Autio 2014).

The GEDI index is constructed of 16 individual and 15 institutional variables altogether. The scores go from a theoretical 0 (worst) to 100 (theoretically reachable limit). Individual data are calculated from the 2006-2012 years, using the two-year moving average principle. In the case of the institutional variable, single-year data are applied. Appendix E of the report introduces the GEDI methodology.

The GEDI index is divided into three sub-indexes. The sub-index 'Entrepreneurial attitudes' encompasses the society's attitudes towards entrepreneurship, including general feelings about recognising opportunities, accepting risks associated with starting a business etc. According to the constructors of the GEDI index, entrepreneurial attitudes are important as countries need people who recognise business opportunities and who perceive of having the skills required to exploit these opportunities. If such attitudes are positive in a country, entrepreneurship and starting businesses will be encouraged.

The second sub-index, 'Entrepreneurial abilities' refer to the characteristics of entrepreneurs and their businesses. The methodology values those entrepreneurs most who are in the medium- or high-technology sectors, educated, and who are motivated by an

[7] Schumpeter originally published his book in German with Harvard University Press in 1934.
[8] www.thegedi.org

opportunity in an environment that is not overly competitive. Opportunity motivation is generally a sign of better planning, a more sophisticated strategy, and higher growth expectations than "necessity start-ups" (Ács – Szerb – Autio 2014, p. 49.).

'Entrepreneurial aspiration' relates to the quality of start-ups and new businesses. Innovation, internationalization and high growth are considered as key characteristics of entrepreneurship. Regarding this pillar, a finance variable has also been added as the informal and formal venture capital potential of innovative start-ups and high-growth firms is a vital element of success. As the report remarks, these three elements of entrepreneurship are interrelated: all three have an influence the other two.

Table 5: EU member states' GEDI scores and global rank***

	GEDI		*Attitudes*		*Abilities*		*Aspiration*	
Country	*Score*	*Rank*	*Score*	*Rank*	*Score*	*Rank*	*Score*	*Rank*
Austria	63.9	17	63.2	11	65.1	14	63.6	18
Belgium	66.5	13	62.1	13	66.2	12	71.1	10
Bulgaria	45.4	36	44.8	39	38.3	53	53.3	37
Croatia	40.9	49	32.9	72	38.8	52	51.0	38
Cyprus	40.2	51	33.0	71	47.2	31	40.6	51
Czech Republic	44.5	41	33.8	68	36.6	59	63.3	20
Denmark	72.5	4	66.9	8	77.1	4	73.5	7
Estonia	58.9	21	53.7	19	59.6	19	63.6	19
Finland	69.3	7	79.4	2	62.9	18	65.5	17
France	67.2	12	64.0	10	64.4	17	73.2	8
Germany	64.6	16	56.4	17	70.1	9	67.3	13
Greece	37.7	58	30.8	85	42.5	41	40.0	52
Hungary	44.5	42	40.5	52	44.1	37	48.9	41
Ireland	61.8	18	51.0	23	64.5	16	69.9	11
Italy	40.9	48	31.5	82	41.9	43	49.3	40
Latvia	48.4	27	39.7	54	50.0	28	55.7	29
Lithuania	49.6	25	42.4	44	51.5	24	55.0	31
Netherlands	69.0	8	73.6	6	64.5	15	68.8	12
Poland	49.0	26	50.4	24	36.5	60	60.3	21
Portugal	46.9	30	38.5	56	47.4	30	54.8	32
Romania	44.6	40	37.3	60	42.6	40	53.9	36
Slovakia	46.5	34	44.9	37	38.1	56	56.7	27
Slovenia	52.7	22	48.3	30	54.3	21	55.5	30
Spain	46.8	31	44.4	41	52.9	23	43.3	48
Sweden	73.7	3	78.7	3	76.5	6	65.8	16
United Kingdom	68.6	9	62.1	14	77.6	3	66.2	15

*There are no data available for Luxembourg and Malta.
**Out of 120 countries.

Source: www.thegedi.org

As regards EU member states, 26 of them are included in the GEDI report: all but Luxembourg and Malta. EU member states respective scores and ranks are shown by Tables 5 and 6.

Table 6: EU member states' GEDI scores and EU rank*

	GEDI		*Attitudes*		*Abilities*		*Aspiration*	
Country	*Score*	*Rank*	*Score*	*Rank*	*Score*	*Rank*	*Score*	*Rank*
Austria	63.9	9	63.2	6	65.1	6	63.6	10
Belgium	66.5	7	62.1	7	66.2	5	71.1	3
Bulgaria	45.4	19	44.8	15	38.3	23	53.3	20
Croatia	40.9	23	32.9	24	38.8	22	51.0	21
Cyprus	40.2	25	33.0	23	47.2	17	40.6	25
Czech Republic	44.5	21	33.8	22	36.6	25	63.3	12
Denmark	72.5	2	66.9	4	77.1	2	73.5	1
Estonia	58.9	11	53.7	10	59.6	11	63.6	11
Finland	69.3	3	79.4	1	62.9	10	65.5	9
France	67.2	6	64.0	5	64.4	9	73.2	2
Germany	64.6	8	56.4	9	70.1	4	67.3	6
Greece	37.7	26	30.8	26	42.5	20	40.0	26
Hungary	44.5	22	40.5	18	44.1	18	48.9	23
Ireland	61.8	10	51.0	11	64.5	7	69.9	4
Italy	40.9	24	31.5	25	41.9	21	49.3	22
Latvia	48.4	15	39.7	19	50.0	15	55.7	15
Lithuania	49.6	13	42.4	17	51.5	14	55.0	17
Netherlands	69.0	4	73.6	3	64.5	8	68.8	5
Poland	49.0	14	50.4	12	36.5	26	60.3	13
Portugal	46.9	16	38.5	20	47.4	16	54.8	18
Romania	44.6	20	37.3	21	42.6	19	53.9	19
Slovakia	46.5	18	44.9	14	38.1	24	56.7	14
Slovenia	52.7	12	48.3	13	54.3	12	55.5	16
Spain	46.8	17	44.4	16	52.9	13	43.3	24
Sweden	73.7	1	78.7	2	76.5	3	65.8	8
United Kingdom	68.6	5	62.1	8	77.6	1	66.2	7

*There are no data available for Luxembourg and Malta.

Source: www.thegedi.org

Let us take a closer look at the relative positions within the EU (Table 6). We can see that, in the overall GEDI index, the Nordic countries (Sweden, Denmark, Finland), the Netherlands and the United Kingdom lead the rank, followed by other Western member states. Estonia (11), Slovenia (12), Lithuania (13), Poland (14) and Latvia (15) are leading the group of new member states – and, together with Ireland (10), also that of the member states in the periphery of the EU.[9]

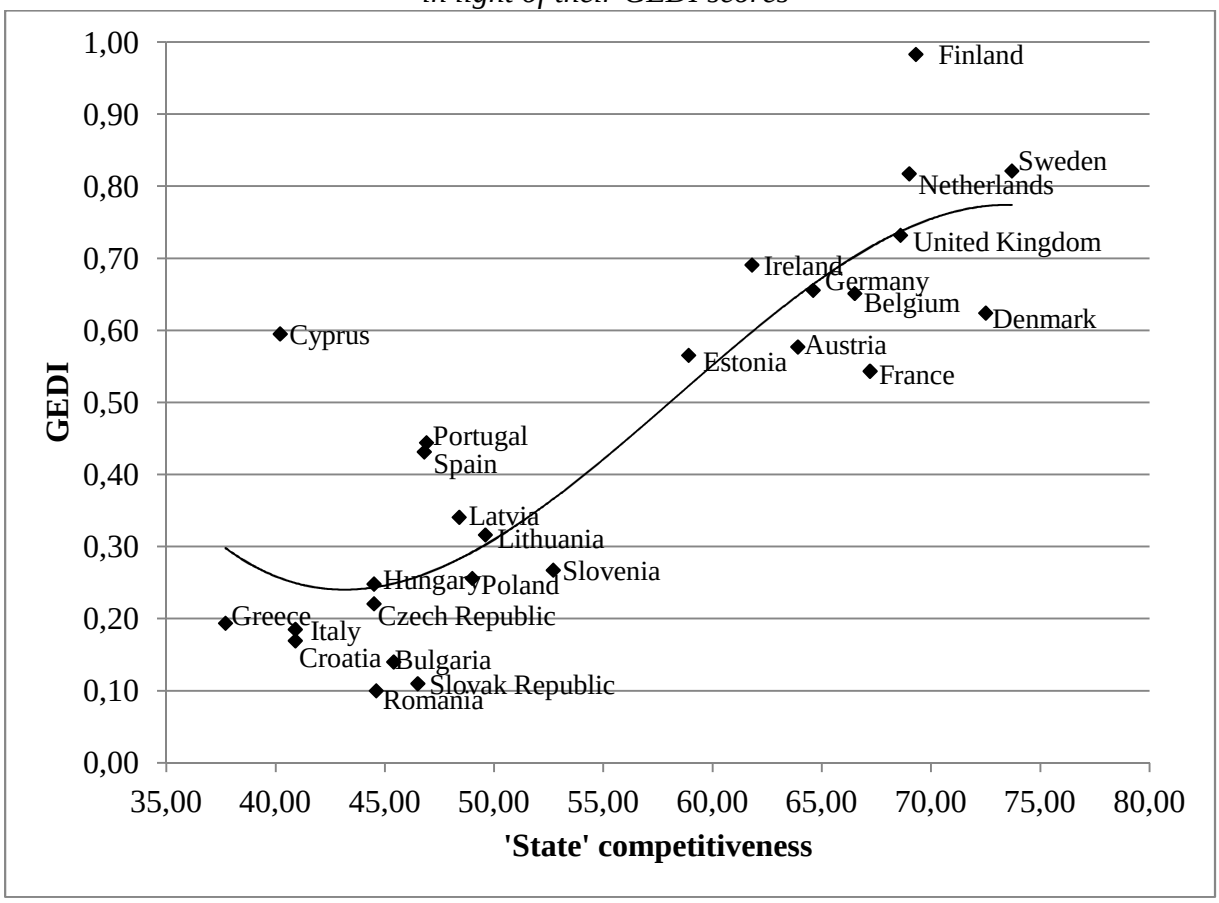
Although with slightly different internal positions, we can see a very similar divide between EU member states along the three pillars of the GEDI (Attitudes, Abilities and Aspiration). We hereby highlight only a few interesting facts:

[9] In other words and/or according to other approaches, the new member states and the so-called PIIGS countries (Portugal, Ireland, Italy, Greece and Spain) that suffered most in the crisis make up the periphery of the EU while the Northern and Western member states form the core.

- The United Kingdom scores highest among EU member states in respect of entrepreneurial abilities.
- Sweden and Finland rank relatively low (8 and 9, respectively) along entrepreneurial aspirations.
- At the same time, the Czech Republic ranking 12th along the aspirations pillar is remarkable, especially in light of the country's performance in the other two dimensions (22 for attitudes and 25 for abilities).
- In the case of the three Baltic states, Estonia precedes the other two in all terms.

After seeing the scores and ranks of EU member states according to the competitiveness and entrepreneurship indicators, we were eager to see the relations. Comparing the three competitiveness indicators to the overall GEDI indicator has proved to show the most spectacular results (Figures 3, 4 and 5).

Figure 3: EU member states' relative positions in 'State' competitiveness in light of their GEDI scores



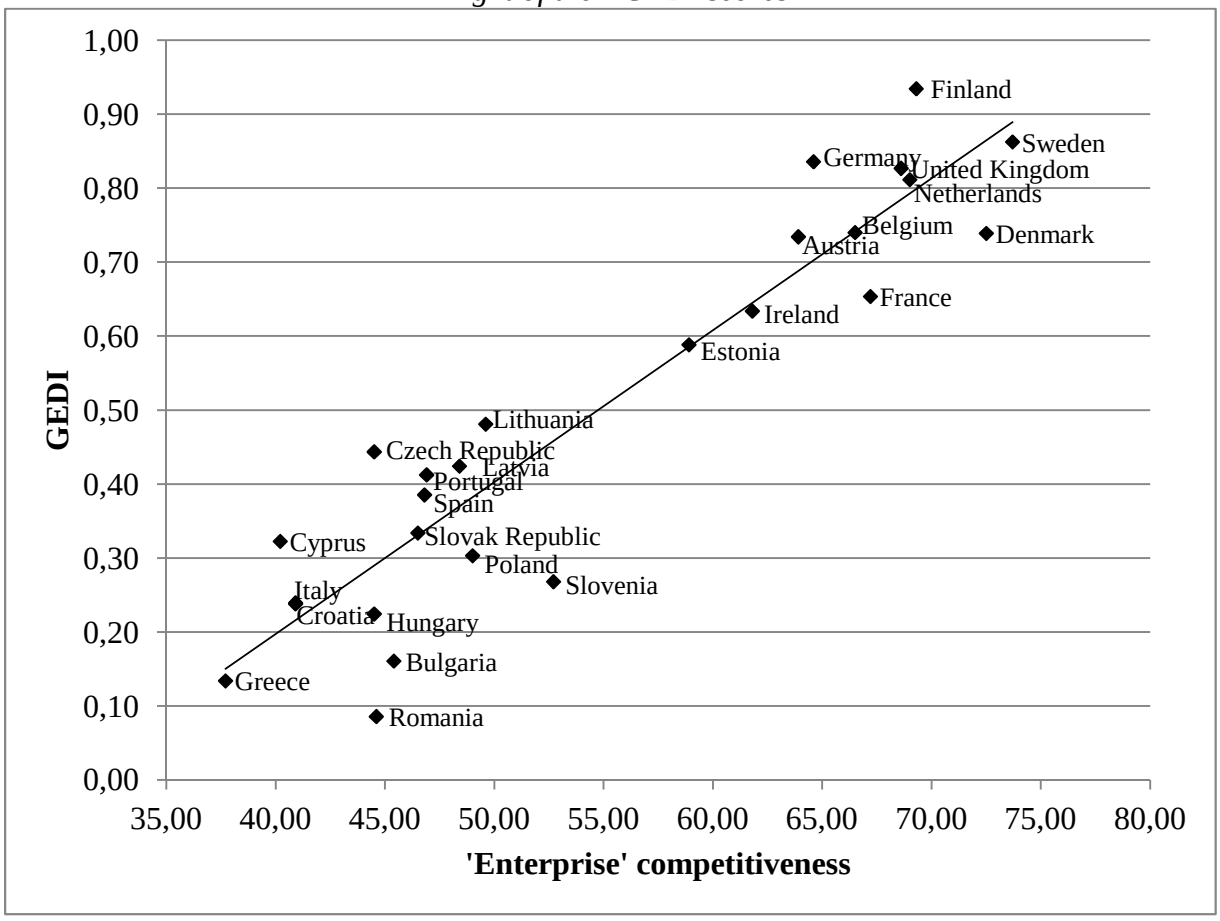
Source: own calculations

The trend line is a polynomial regression of the second degree:

$$y = -4E\text{-}05x^3 + 0.0067x^2 - 0.3639x + 6.5546$$

$$R^2 = 0.751$$

Figure 4: EU member states' relative positions in 'Enterprise' competitiveness in light of their GEDI scores



Source: own calculations

The trend line is a linear regression:

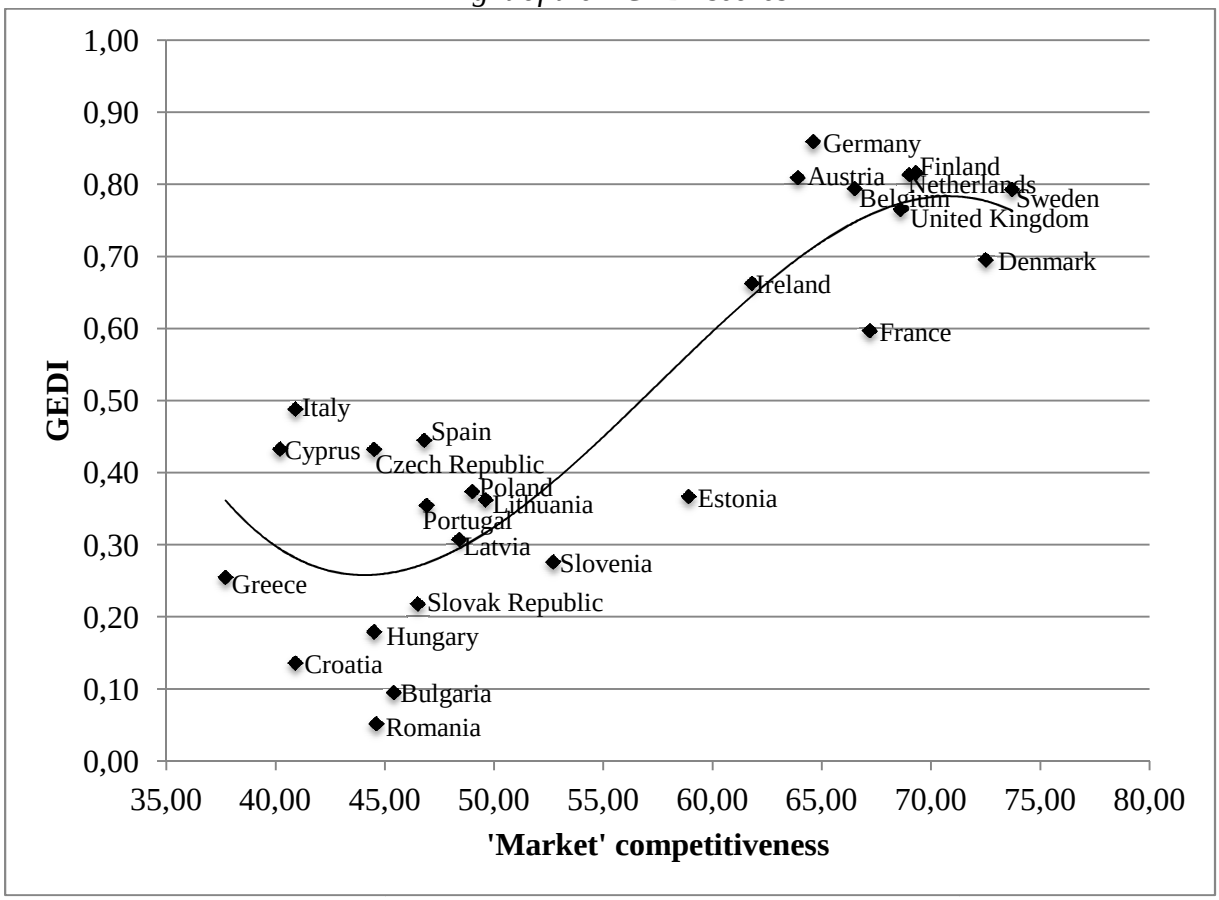
$$y = 0.0205x – 0.6236$$

$$R^2 = 0.8585$$

What is perhaps the most spectacular in all three figures is the very obvious gap between the good performers and the weak performers. The second astonishment may come in connection with Estonia's position (especially along 'State' and 'Enterprise' competitiveness).

Last but not least, we also found it astonishing that, for 'Enterprise' competitiveness, a linear regression function could largely explain the variations ($R^2 = 0.8585$) while, for the relation of 'State' and 'Market' competitiveness with the GEDI index of entrepreneurship, a regression of the second degree produced acceptable results (and increasing the degree of the polynomial regression did not increase R^2 significantly). This strong linear relation of our 'Enterprise' competitiveness indicator with the GEDI index tells us that this indicator of ours does indeed tell us about the entrepreneurial aspects of competitiveness. Nevertheless, the gap between the two groups along this linear regression function is perhaps even more striking than those in the other two figures.

Figure 5: EU member states' relative positions in 'Market' competitiveness in light of their GEDI scores



Source: own calculations

The trend line is a polynomial regression of the second degree:

$$y = -6E\text{-}05x^3 + 0.0095x^2 - 0.5154x + 9.2569$$

$$R^2 = 0.7732$$

In order to test theory and secondary data analysis, we constructed a questionnaire on competition. The questionnaire has been translated into the official languages of the eleven EU member states originally targeted by our research: Germany, France, the United Kingdom, the Netherlands, Austria, Sweden, Italy, Spain, Finland, Romania, and Hungary. We decided to include these member states as we planned to cover old and new member states, and countries from the North/West and South/East groups. The multi-language cross-country survey contained questions on the following: competitive advantage, competition regulation, price formation, aggressive market behaviours, dominant position, state's role in relation to market competition, decent competition, performance competition, cooperation of competitors, and the role of knowledge in market competition. However, in the course of surveying, we lacked the financial and organisational resources to collect enough answers to be able to use them in our research. Therefore, we decided not to include the results of the survey in our study.

Anyhow, in parallel to collecting replies to our questionnaire, we also conducted personal interviews with persons active in European cross-country business life (typically working in more than two EU member states, and many times outside the EU as well, e.g. Russia or the US). The interviews were carried out between September 2013 and March 2014,

in Hungary, Germany, France, Italy and Sweden. An overall of 17 business persons have been interviewed. The interviewees construct a group of: four Hungarians, one Austrian-Italian, one Spanish (Catalan, as pointed out by interviewee), two Germans, one Franco-German, one French, two Swedes, three Finns, a Romanian-Belgian (from the Flemish part), and one Russo-Brit. The interviews typically lasted 40-60 minutes.

Interestingly, though our aim was to receive answers to the questions asked by our survey, in most of the cases, the interviews took other directions and/or the interviewees emphasised other parts of international business life than we would have expected (e.g. the advantages of gaining intercultural experiences at a very young age). Therefore, we hereby only cite those points of the interviews that we find relevant in light of our research:

- For most of the new member states of the EU, interviewees reported of those 'invisible' informal relations and decisions that are sensed but not easily discovered and identified by an 'outsider': it is extremely difficult to find out how these relations and decisions are structured and operated.
- For the cases of Sweden and Finland, most interviewees (both those from there and the others) mentioned predictability as a core element of business. It is sensed almost as 'bore' for persons from other cultures. Also, in these countries, there is no big rush in business operations but there is still high efficiency. So, as interviewees conclude, there is probably little 'waste' in the processes. Within the organisations, there is a high level of democracy and transparency in decision-making. Then, once decisions are taken, even opponents adhere to them. In this environment, decision-making may seem slow and painful at first sight but, at the end of the day, they are efficient.
- Italy is sensed as a special case by most people pursuing business activities there. In particular, the Northern and Southern parts of the country are as if they were two different worlds in terms of the "rules of the game": while the North shows strong similarities with the central part of Europe (actually, it is indeed part of the core of Europe), the South has its own rules, its own world, and sustains a strong suspicion towards anything coming from outside.
- For France, interviewees emphasised the very serious bureaucratic burdens to doing business (with what French interviewees themselves agreed most), and the persistent idea that 'bigger is stronger' – something very strange for the Northern European, for example. On the other hand, the Flemish part of Belgium and the Netherlands are sensed as being quite the opposite: 'smaller is more flexible and more efficient'. As for Sweden, the Netherlands and Flanders, there was another viewpoint, especially from those with experience in Latin and Eastern European countries, namely that, in these countries, business people are phrasing their intentions very simply, therefore it easy to do business, provided the other party appreciates that.
- It is somewhat outside our scope but it was interesting to hear from several interviewees that Russia is perceived as being very different from the new member states as the latter are closer to what interviewees called the 'European standards'. So, from this point of view, there is indeed some kind of convergence on behalf of new member states in terms of doing business. We should not forget about that advancement.

Conclusions

The interpretation of competition as an institution has its own history. The quality of competition as an institution matters greatly. The development of the concept of competition as an institution has closely been related with the development of competition regulation and the state's role as the main guard of competition. Transaction costs in relation to competition policy can be interpreted. However, they can be reduced if there is strong competition in an economy.

The European common competition regulation is a stable system. Integration in the EU internal market is traceable throughout the decades of the history of European integration. In case of the Eurozone, even the 2008 crisis did not divert the continuous price convergence that has characterised the countries participating in the single currency area (17 countries, until 2013).On the other hand, the share of intra-EU trade in EU member states' trade has mostly been decreasing in the past decade.

Regarding competitiveness, EU member states show a large dispersion in this respect. In our study, we generated three further indicators to assess member states' competitiveness in relation to competition. Along these dimensions, we had some interesting findings but the North/West and South/East divides within the EU apply in these aspects as well.

We also used the Global Entrepreneurship and Development Institute's GEDI index and its three pillars: entrepreneurial attitudes, abilities and aspirations in EU member states. Although with somewhat different internal order within the certain groups, we found very similar frictions within the EU to those according to the competitiveness indicators.

The most spectacular manifestation of the gap between the two groups of EU member states came as we plotted the competitiveness and GEDI scores in two-dimension coordinate systems. The relation between competitiveness and the GEDI score was positive in all three cases and for 'Enterprise' competitiveness a linear regression largely explained the variations. In all three cases, there are two groups of EU member states and an obvious gap between the two groups.

Our main conclusion is that there is a serious divide within the EU regarding competition and that this divide is not between old and new member states but between the core and the periphery of the internal market. The personal interviews we conducted do not disaffirm our findings.

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