

LANDMARKS ON THE EVOLUTION OF GLOBAL COMPETITIVENESS. ANALYSIS ON THE EXAMPLE OF THE EUROPEAN UNION MEMBER STATES

Mihaela Brîndușa TUDOSE

Gh. Asachi University of Iași, Romania
brindusatudose@gmail.com

Diana Valentina RUSU

Department of Interdisciplinary Research - Human and Social,
"Alexandru Ioan Cuza" University of Iași, Romania
valentinadiana.ig@gmail.com

Abstract:

Summarizing the results of theoretical and empirical research, the paper highlights key aspects of the evolution of the debates in the field, it presents the methodology of determining the global competitiveness index and reproduces its development in the Member States of the European Union. More than half of European Union Member States recorded an increase in the global competitiveness index on the account of the basic influence factors. With the exception of six countries (Bulgaria, Cyprus, Croatia, France, Italy, Malta), the other EU countries show a favorable influence of the efficiency on the index of global competitiveness. The highest contribution of the efficiency on the increase of global competitiveness is recorded in Portugal, Romania, Latvia, Lithuania and Bulgaria; on the opposite side is Malta, Cyprus and Germany. Regarding the influence of innovation, only three countries stand out by a negative impact on the global competitiveness index: Finland (-0.08), Spain (-0.08) and Austria (-0.01); Romania, Cyprus and Portugal show the highest favorable effect of innovation (0.21; 0.19 0.13 respectively).

Key words: factors of competitiveness, efficiency, innovation, international competitiveness; global competitiveness index

JEL classification: F14

1. INTRODUCTION

Enhancing external economic relations have increased competition and forced the economic agents (respectively the overall economies) to pay more attention to international competitiveness. The competition has exceeded the economic sphere; now, not only firms compete on the goods and services market; the countries compete for the mobile factors of production; people compete for higher incomes and job security (Siebert, 2000). Neglecting (even partial) of the competitiveness attracts the risk that commercial interdependencies between countries to turn into addictions. Therefore, international competitiveness is the essential condition of independent development in an interdependent world.

The analysis of global competitiveness allows appreciating the extent to which the various economies of the world countries have managed to face the challenges. Regardless of their size, the economies - dependent on foreign economic exchanges - were confronted with unusual experiences; the economic crisis has generated a crisis of public finances which - amid certain political blockages - has made it more difficult to recover even for the most advanced economies of the world. In such a scenario has been admitted that the foundation of economic growth and long-term development is the exploitation of the productive potential of each actor of the world market; the economic policies and institutional reforms were accepted as basic tools in redefining the quantitative and qualitative coordinates of the recovery through competitiveness and sustainable performance.

Based on the analysis of the international competitiveness of the economies of the world, the primary objective of the survey was to identify the specifics of the Member States of the European

Union. To achieve this goal, the paper is structured as follows: the first section presents the state of knowledge in the field; section two presents the methodological coordinates of the research regarding international competitiveness; the third section focuses on the analysis of chromatic of global competitiveness of the EU Member States; the last section summarizes the conclusions and shows the limits and future directions of research.

2. THE STATE OF KNOWLEDGE IN THE FIELD

The complexity of contemporary economies, diversification and specialization, technical progress, increased dependency on raw materials, the crises and increasing concerns on risk reduction while maximizing the gains/benefits have redefined the role, dynamics and structure of indicators for assessing global competitiveness.

In the late 80s the competitiveness theory has addressed the link between *growth and balance of payments of an open economy* (Fagerberg, 1988). In less than ten years away, the international competitiveness of a country was defined as *the ability to sell, the ability to attract foreign direct investment, and the ability to obtain gains* (Trabold, 1995). Then, in the definition of international competitiveness they have opted for association with economic welfare; thus Coldwell (2000) takes the view that we can talk about international competitiveness when the *economic welfare of a nation is surpassed by increasing trade flows*.

Recent researches have made additional contributions in international competitiveness. Competitiveness was defined as: a) the ability to create wealth (Kao, 2008; Onsel, 2008), being considered a relevant indicator for evaluating countries and regions; b) a high standard of living in a country with the lowest rate of unemployment (European Competitiveness Report, 2010); c) a set of institutions, policies and factors that determine the level of productivity of a country (Sala-I-Martin et al., 2009). Summing up the theoretical and empirical research results, it emerges the idea that the winning more profitable positions depends on variables like *performance, welfare, efficiency, innovation and sustainability*. Competitiveness drive prosperity and a high living standard for the citizens (Oprescu, 2012).

In order to ensure the progress in research was not carried out a strict limitation on the positive heuristic, but was also made noticeable the negative heuristics. The most "fierce" critical of the concept of international competitiveness was Krugman (1996), which said that the definitions are "elusive and meaningless when related to national economies; for the economies with low international trade, the competitiveness is a fun way of saying productivity".

In retrospect, passing through the filter of critical rationalism, we appreciate that solidity of international competitiveness theory has proven its strength and importance. Noteworthy is the fact that the path of the research was not unidirectional, but there were also turns in the plan of debates.

3. METHODOLOGICAL COORDINATES OF THE INTERNATIONAL COMPETITIVENESS RESEARCH

The international competitiveness analysis is carried out after the following points (Herciu, 2013): a) the extent that it relates to macroeconomic issues (national welfare, attractiveness for foreign and domestic investments) and not an aggregation of microeconomic issues; b) the extent to which it is made the difference between influence factors and indicators of international competitiveness; c) the amplitude of the technology and innovative gap between countries (in the context of coexistence of the economies based on the efficiency of classical factors and of the innovation based economies).

Regarded through the recent global transformations, the determinants of competitiveness can be identified as:

a) *The conditions of the factors of production*; on this line, the current prime concern is to reduce resource dependency;

b) *The conditions of demand/supply*; in the absence of other instruments, some states continue to focus on stimulating aggregate demand; however, the trend which is being observed is of revival, in new forms, of the conjunctural policies based on *stimulating the supply* (supply-side economics);

c) *The market size*; it must not be neglect the experience of the countries which accepting the destruction of their economies have become, fundamentally, outlets market; in this case the fact remains that foreign demand is not based solely on the competitiveness of exported products but also on insufficient domestic production of the partner countries;

d) *The competitive environment*; given that the crisis (economic and financial) has affected most of the economies of the world, it have been severely reduced the prospects of the competitors to resist to the powerful performant companies;

e) *Promotion*; to ensure the coordination and division of labor in the value chain in order to promote, large manufacturers have created an extensive network of global promotion;

f) *Government interventions*; international competitiveness, where it is visible, has been strongly supported by appropriate public policies;

g) *Unexpected events*; some economies have "picked the fruitage" by exploiting favorable opportunities created by the economic crisis, respectively, by speculating the weaknesses of partners.

The indicators for assessing the international competitiveness can be analyzed on two levels: microeconomic (focus on products trade, specialization and specialization dynamic, sustainable growth rate of profit/capital of the company) and macroeconomic (trade balance indicators, indicators of international openness, indicators of concentration/geographical dispersion, exchange rate, interest rate, inflation rate, respectively, the human development index.

In order to sketch a picture of how EU countries have managed to cope in the face of new challenges we relate to reports by World Economic Forum (Schwab, 2012, 2013, 2014) on global competitiveness. To assess competitiveness were analyzed:

- The determining factors (called pillars of competitiveness): (1) basic factors (institutions, infrastructure, macroeconomic environment, health and primary education); (2) increase efficiency factors (professional development, efficiency and size of the markets - of goods, labor and financial - receptiveness to new technologies); (3) innovation factors (quality and complexity of business and innovation);

- The development stages of each economy: a) stage 1 - Orientation on the basic factors of competitiveness; b) transition from stage 1 to stage 2; c) stage 2 – competitiveness focused on efficiency; d) transition from stage 2 to stage 3; e) stage 3 - based on innovation.

4. THE ANALYSIS OF THE INTERNATIONAL COMPETITIVENESS OF EU MEMBER STATES

As regards the annual classification on different predefined stages of growth of all 140 countries, WEF reports reveal a shy country migration. Taking as reference the beginning (2011/2012) and the end of the period (2014/2015) we observe that has decreased the number of states in the first two groups in the favor of the next three groups, which is a positive aspect (Table 1) because it increases the number of efficiency-driven economies and innovation based economies.

Looking through the prism of the Member States of the European Union a progress was made in line of classification only by the Slovak Republic (2012/2013) and Estonia (2013/2014), the last one has managed to enter in the third stage of development.

The presentation of the positions for the European Union member states and the developments registered in the global competitiveness index are shown in Table 2.

In the period 2012/2013 the EU Member States were ranked in the range of 3-96, the best position being hold by Finland, and on the last position being Greece (column 2, Table 2). The first ten positions were occupied by Finland, Netherlands, Germany, United Kingdom, Denmark,

Austria, Belgium, France, Luxembourg and Ireland. In contrast, Romania, Croatia and Greece were ranked on the last three positions.

Between 2013/2014 (column 3, Table 2), Malta, Croatia, Bulgaria and Greece win many positions in the ranking (6 and 5 positions). The most significant declines in international competitiveness rankings were recorded by Slovenia, Czech Republic, Italy and Slovak Republic (with 6 or 7 positions).

Table no. 1. Distribution of states on the five stages of development

	Stages of development				
	Stage 1: Factor driven	Transition from stage 1 to stage 2	Stage 2: Efficiency driven	Transition from stage 2 to stage 3	Stage 3: innovation driven
The share of orientation towards:					
- basic requirements	60%	40-60%	40%	20%-40%	20%
- efficiency	35%	35-50%	50%	50%	50%
- innovation	5%	5-10%	10%	10%-30%	30%
GDP/capita (USD)	< 2,0	2-2,99	3-8,99	9-17	>17,0
Distribution of states from UE:					
2011/2012 (no. of states)	-	-	2	7	18
2012/2013 (no. of states)			2	6	19
2013/2014 (no. of states)	-	-	2	5	21
2014/2015 (no. of states)	-	-	2	5	21

Source: Data processed after Schwab, K. (ed.), *The Global Competitiveness Report 2011–2012, Report 2012–2013, Report 2013–2014, Report 2014–2015*, World Economic Forum, Geneva.

Also during 2014/2015 the ranking is opened by Finland and closed by Greece. The most spectacular rises in ranking were register by Romania (up 17 positions), Portugal (up 15 positions), Latvia and Greece (each rising by 10 positions). On the opposite side are Austria, Malta and Slovenia who lose 5, 6 or 8 positions in the ranking (column 4, Table 2).

Table no. 2. The ranking of countries according to the value of the global competitiveness index

	Country	Rank			Score (GCI)			Variations of GCI		
		2012/ 2013	2013/ 2014	2014/ 2015	2012/ 2013	2013/ 2014	2014/ 2015	row 6 – row 5	row 7 – row 6	row 7 – row 5
0	1	2	3	4	5	6	7	8	9	10
1	Austria	16	16	21	5.22	5.15	5.16	-0.07	0.01	-0.06
2	Belgium	17	17	18	5.21	5.13	5.18	-0.08	0.05	-0.03
3	Bulgaria	62	57	54	4.27	4.31	4.37	0.04	0.06	0.10
5	Croatia	81	75	74	4.04	4.13	4.13	0.09	0	0.09
4	Cyprus	58	58	58	4.32	4.30	4.31	-0.02	0.01	-0.01
6	Czech Republic	39	46	37	4.51	4.43	4.53	-0.08	0.1	0.02
7	Denmark	12	15	13	5.29	5.18	5.29	-0.11	0.11	0
8	Estonia	34	32	29	4.64	4.65	4.71	0.01	0.06	0.07
9	Finland	3	3	4	5.55	5.54	5.50	-0.01	-0.04	-0.05
10	France	21	23	23	5.11	5.05	5.08	-0.06	0.03	-0.03
11	Germany	6	4	5	5.48	5.51	5.49	0.03	-0.02	0.01
12	Greece	96	91	81	3.86	3.93	4.04	0.07	0.11	0.18
13	Hungarian	60	63	60	4.30	4.25	4.28	-0.05	0.03	-0.02
14	Ireland	27	28	25	4.91	4.92	4.98	0.01	0.06	0.07
15	Italy	42	49	49	4.46	4.41	4.42	-0.05	0.01	-0.04
16	Latvia	55	52	42	4.35	4.40	4.50	0.05	0.1	0.15
17	Lithuania	45	48	41	4.41	4.41	4.51	0	0.1	0.10
18	Luxembourg	22	22	19	5.09	5.09	5.17	0	0.08	0.08
19	Malta	47	41	47	4.41	4.50	4.45	0.09	-0.05	0.04
20	Netherlands	5	8	8	5.50	5.42	5.45	-0.08	0.03	-0.05
21	Poland	41	42	43	4.46	4.46	4.48	0	0.02	0.02
22	Portugal	49	51	36	4.40	4.40	4.54	0	0.14	0.14

23	Romania	78	76	59	4.07	4.13	4.30	0.06	0.17	0.23
24	Slovak Republic	71	78	75	4.14	4.10	4.15	-0.04	0.05	0.01
25	Slovenia	56	62	70	4.34	4.25	4.22	-0.09	-0.03	-0.12
26	Spain	36	35	35	4.60	4.57	4.55	-0.03	-0.02	-0.05
27	Sweden	4	6	10	5.53	5.48	5.41	-0.05	-0.07	-0.12
28	United Kingdom	8	10	9	5.45	5.37	5.41	-0.08	0.04	-0.04

Source: Data processed after Schwab, K. (ed.), *The Global Competitiveness Report 2011–2012, 2012/2013, 2013/2014, 2014/2015*, World Economic Forum, Geneva, pp. 13-16

For the entire analyzed period (2012-2015) there are observed mutations wider in the international competitiveness ranking. Romania, Greece, Portugal and Latvia are ascending the most positions in the ranking (19, 15 and 13 positions). On the opposite side are France and Poland (which lost two positions each), Netherlands (which lost three positions) and the Sweden (which lost six positions).

The evolution of global competitiveness index which was the bases for drawing up the ranking reveals increasing and decreasing oscillations (col. 8 and 9, Table 2). The overview on these oscillations is shown in Figure 1.

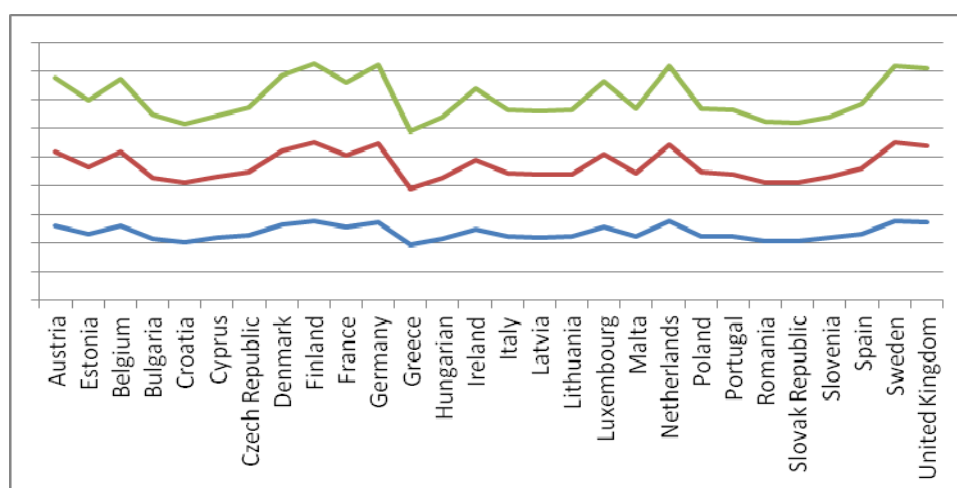


Figure no. 1. The evolution of global competitiveness index (by country and by reference intervals: 2012/2013, 2013/2014, 2014/2015)

The last column of Table 2 shows the global competitiveness index variation throughout the entire period (2012-2015); the variation margin is included in the range of - 0.12 (Slovenia) and 0.23 (Romania).

Table no. 3. The evolution of the influence from the global competitiveness index influence factors

	Country	Subindexes of GCI						The direction and amplitude of factors influence		
		Basic factors		Efficiency		Innovation		Basic factors	Efficiency	Innovation
		2013/2014	2014/2015	2013/2014	2014/2015	2013/2014	2014/2015			
0	1	2	3	4	5	6	7	8	9	10
1	Austria	5.63	5.71	4.97	4.96	5.14	5.11	+0.08	-0.01	-0.03
2	Belgium	5.51	5.53	5.03	5.07	5.07	5.11	+0.02	+0.04	+0.04
3	Bulgaria	4.73	4.71	4.18	4.31	3.28	3.27	-0.02	+0.13	-0.01
4	Cyprus	4.84	4.73	4.34	4.28	3.87	4.06	-0.11	-0.06	+0.19
5	Croatia	4.69	4.66	4.05	4.11	3.46	3.47	-0.03	+0.06	+0.01
6	Czech Republic	4.80	5.02	4.51	4.62	4.07	4.07	+0.22	+0.11	0.00
7	Denmark	5.55	5.85	5.05	5.11	5.14	5.19	+0.30	+0.06	+0.05
8	Estonia	5.43	5.54	4.64	4.73	4.08	4.17	+0.11	+0.09	+0.09
9	Finland	5.97	5.97	5.30	5.27	5.65	5.57	0.00	-0.03	-0.08
10	France	5.50	5.42	5.00	5.07	4.84	4.86	-0.08	+0.07	+0.02
11	Germany	5.90	5.91	5.31	5.26	5.59	5.65	+0.01	-0.05	+0.06

12	Greece	4.30	4.50	4.06	4.15	3.46	3.55	+0.20	+0.09	+0.09
13	Hungary	4.61	4.71	4.28	4.30	3.60	3.62	+0.10	+0.02	+0.02
14	Ireland	5.18	5.19	4.89	4.97	4.81	4.85	+0.01	+0.08	+0.04
15	Italy	4.85	4.82	4.34	4.36	4.22	4.26	-0.03	+0.02	+0.04
16	Latvia	5.00	5.15	4.41	4.60	3.61	3.68	+0.15	+0.19	+0.07
17	Lithuania	4.91	5.08	4.35	4.54	3.93	3.97	+0.17	+0.19	+0.04
18	Luxembourg	5.87	6.02	4.92	4.97	4.84	4.93	+0.15	+0.05	+0.09

Table no. 3. The evolution of the influence from the global competitiveness index influence factors (continued)

19	Malta	5.17	5.13	4.52	4.43	4.03	4.03	-0.04	-0.09	0.00
17	Lithuania	4.91	5.08	4.35	4.54	3.93	3.97	+0.17	+0.19	+0.04
18	Luxembourg	5.87	6.02	4.92	4.97	4.84	4.93	+0.15	+0.05	+0.09
19	Malta	5.17	5.13	4.52	4.43	4.03	4.03	-0.04	-0.09	0.00
20	Netherlands	5.89	5.95	5.27	5.28	5.36	5.41	+0.06	+0.01	+0.05
21	Poland	4.72	4.80	4.60	4.64	3.65	3.66	+0.08	+0.04	+0.01
22	Portugal	4.96	5.00	4.36	4.57	4.06	4.19	+0.04	+0.21	+0.13
23	Romania	4.32	4.48	4.13	4.32	3.32	3.53	+0.16	+0.19	+0.21
24	Slovak Republic	4.60	4.58	4.31	4.31	3.59	3.59	-0.02	0.00	0.00
25	Slovenia	5.06	4.86	4.14	4.17	3.88	3.88	-0.20	+0.03	0.00
26	Spain	5.05	4.98	4.64	4.67	4.14	4.06	-0.07	+0.03	-0.08
27	Sweden	5.95	5.86	5.31	5.25	5.46	5.38	-0.09	-0.06	-0.08
28	United Kingdom	5.48	5.49	5.45	5.51	5.15	5.21	+0.01	+0.06	+0.06

Source: Data processed after Schwab, K. (ed.), *The Global Competitiveness Report 2013/2014, 2014/2015*, World Economic Forum, Geneva, pp. 14-16

More than half of European Union Member States record an increase in the global competitiveness index on the account of basic factors influence. The most significant negative influences of basic factors on the global competitiveness index is registered by Slovenia (-0.22) and Cyprus (-0.11).

With the exception of six countries (Austria, Cyprus, Finland, Germany, Malta and Sweden), the other EU countries show a favorable effect of the efficiency on the index of global competitiveness. The highest intake of efficiency to the increase of global competitiveness is recorded in Portugal, Romania, Latvia, Lithuania and Bulgaria. At this chapter lose the most Malta, Cyprus and Germany.

Regarding the influence of innovation, only five countries are distinguished by a negative impact on the global competitiveness index: Finland, Spain and Sweden (-0.08) and Austria (-0.01). Romania, Cyprus and Portugal show the highest favorable effect of innovation (+0.21; +0.19 and respectively +0.13).

The image of ordering EU Member States depending on the size of global competitiveness index is shown in Figure 2.

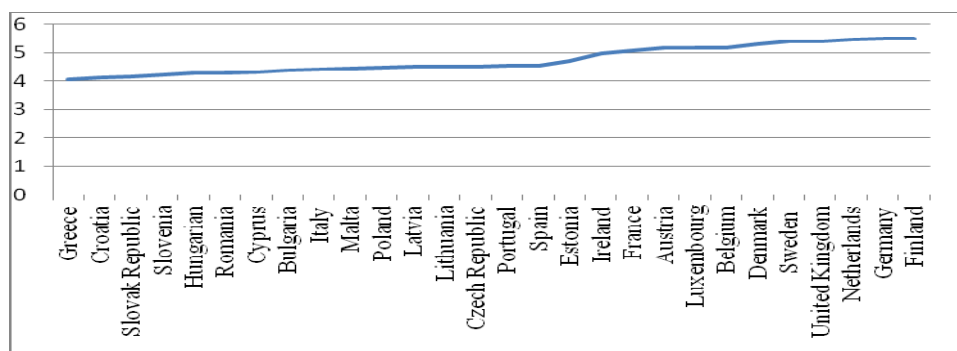


Figure no. 2. Ranking of the EU countries according to the value of the index of global competitiveness (2014/2015)

5. CONCLUSIONS

The competitiveness has been and remains a priority in the plan of the scientific debate, but also a major concern for all world economies. Economic policies and institutional reforms were accepted as basic tools in redefining quantitative and qualitative coordinate of recovery through competitiveness and sustainable performance.

The determinant factors of global competitiveness (traditional factors, efficiency and innovation) and country-specific macroeconomic indicators (such as GDP per capita) allow classification of the world economies in different stages of development.

According to the latest WEF report (2014/2015), at European Union level, two of the 27 states (Romania and Bulgaria) fall into stage two (based on efficiency), five fall in the transition stage from efficiency to innovation (Croatia, Hungary, Latvia, Lithuania, Poland), the rest of the states (21 in number) fit in the third stage.

As regards global competitiveness index at the bottom of the rank is Greece, Croatia, Slovakia and Slovenia, where prevails the influence of the first two categories of factors. At the top of the ranking is the UK, Netherlands, Germany and Finland, for which the third category of factors exercises a dominant influence (innovation).

Limitations and future directions of research. The research relates only on the information provided by reports of the World Economic Forum. To overcome this limit in future research we consider not only the analysis of the information provided by other papers (sources) but also making projections on the competitive potential of the EU Member States.

REFERENCES

1. Coldwell, D. (2000), *The question of international competitiveness*, International Advances in Economic Research, Vol. 6(3), pp. 417-426.
2. European Union (2010), *European Competitiveness Report 2010*, Publications Office of the European Union, Luxembourg.
3. Fagerberg, J. (1988), *International competitiveness*, The Economic Journal, Vol. 98, pp. 355-374.
4. Herciu, M. (2013), *Studii post-doctorale în economie*, vol. V, *Studii și cercetări privind impactul globalizării asupra structurii și dinamicii economiilor*, Editura Academiei Române, București.
5. Kao, C., Wu, W., Hsieh, W. J., Wang, T. Y., Lin, C., Chen, L. H. (2008), *Measuring the National Competitiveness of Southeast Asian Countries*, European Journal of Operational Research, 187, pp. 613-628.
6. Krugman, P. (1996), *Making Sense of the Competitiveness Debate*, Oxford Review of Economic Policy, Vol. 12(3), pp. 17-25.
7. Onsel, S., Ulengin, F., Ulusoy, G., Aktas, E., Kabak, O. and Topcu, Y. I. (2008), *A New Perspective on the Competitiveness of Nations*, Socio-Economic Planning Sciences, Vol. 42, 221-246.
8. Oprescu, R. (2012), *Bridging intellectual capital and the competitiveness of nations*, Management & Marketing Challenges for the Knowledge Society, Vol. 7(1), pp.73-88
9. Sala-I-Martin, X., Blanke, J., Drzeniek Hanouz, M., Geiger, T., Mia, I. (2009), *The Global Competitiveness Index 2009-2010. Contributing to Long-Term Prosperity amid the Global Economic Crisis*, World Economic Forum, Geneva.
10. Siebert, H. (2000), *The paradigm of locational competition*, Working Paper No. 367, Kiel Institute for the World Economy.

11. Trabold, H. (1995), *Market Spreading versus Market Concentration: The Choice of Export Marketing Strategies Reconsidered*, Vierteljahrshefte zur Wirtschaftsforschung, Vol. 64 (4), pp. 573–589.
12. Schwab, Klaus (editor) (2012), *The Global Competitiveness Report 2012–2013*, World Economic Forum, Geneva.
13. Schwab, Klaus (editor) (2013), *The Global Competitiveness Report 2013–2014*, World Economic Forum, Geneva.
14. Schwab, Klaus (editor) (2014), *The Global Competitiveness Report 2014–2015*, World Economic Forum, Geneva.