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## Article

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*Review*  
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## IMPACT OF INTERNATIONAL COUNTRY RANKINGS ON ECONOMIC DEVELOPMENT OF EUROPEAN COUNTRIES IN TRANSITION

**Marijana Nikolic<sup>1</sup>**  
**Milenko Krajisnik**

### **Abstract**

The main objective of this paper is to apply a simple linear regression analysis to answer the question of whether international country ranking can be reasonably considered as a new autonomous factor of the development of European transitional economies. Do they represent a recipe for faster economic progress? The statistical analysis, which covers the period from 2009 to 2017, acknowledges the existence of a time lag between the research variables. „Ease of Doing Business Index“, „Global Competitiveness Index“, „Index of Economic Freedom“ and „Human Development Index“ were selected as explanatory variable, while foreign direct investment and gross domestic product were used as the indicators of dependent variable. Based on the results, it was concluded that, in the defined spatial and temporal context, the international country ranking lists of this type cannot be accepted as a reliable instrument for investment decisions or be confidently used as a basis for creating development policies and strategies for attracting foreign direct investment. This statement about the unreliability and questionable practical applicability of these measures from the point of view of investors and decision makers in the country, as their primary users, suggests that they can reasonably be related to the implication of Goodhart's law.

**Keywords:** Ease of Doing Business Index, Global Competitiveness Index, Index of Economic Freedom, Human Development Index, Goodhart's law.

*Jel Classification:* F63; O10; P20

### **INTRODUCTION**

The economic dimension of globalization is characterized by a plenty of different manifestations, a dynamic and uneven development, but also the pursuit of

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comprehensiveness through the constant inclusion of new segments, the emergence of new entities, processes and relationships among them, which implies the need for constant revision of its basic postulates. The novelty, without which no contemporary theoretical view of economic reality can be considered as relevant, is summarized in the phrase „international country rankings“.<sup>2</sup>

Are economic issues at the core of the phenomenon of international country rankings? Absolutely! Economic activity is a *condicio sine qua non* of social development and „a rising tide that lifts all boats“, so it is expected that this relatively new social phenomenon is largely related to it.<sup>3</sup> Generally speaking about the international country rankings, numerous and interesting questions emerge even at the first glance: who creates the international country ranking lists, what is the interest and goal of their authors, in what sphere of society are those lists most present, and whether and to what extent those lists enjoy the trust of a global audience. Inevitably, there are also doubts what kind of economic and broader social consequences they have in the global public scene and their increasing practical use. However, despite the topicality of these issues and the intriguing economic, political, and generally social processes they create nowadays, the number of scientific and professional research papers that offer answers to these questions is surprisingly low, which, in turn, clearly indicates the fact that it is one of those research topics to which the phrase applies: „The time of significant discoveries is yet to come.“ „But also controversy,“ it can be added.

It is an indisputable fact that the popularity of international country rankings is increasing day by day among governments, entrepreneurs and investors, as well as among the members of the global scientific community. Also, its use in the official rhetoric of political circles is increasing. The design of a strategy for stimulating and attracting foreign direct investment and national development policy should be singled out as a particularly sensitive area of application of this type of ranking lists. Namely, the primary task of every responsible government, as the highest executive authority of one country, is to care for its macroeconomic stability and economic progress. Believing that improvement towards the top of these ranking scales inevitably leads to a more dynamic economic development, the decision makers use suggestions and recommendations of the authors of international country rankings in creating national strategic plans of economic growth. However, it is not just that strategies and policies are subject to the influence of these lists. The lists are also increasingly imposed as a reliable tool for investors when deciding on the spatial allocation of available real and financial capital. It is generally accepted that correct and timely information is the key to the success of any investment and business decision. While the biggest problem for investors and entrepreneurs in the past was the lack of information, ie. their inaccessibility, nowadays, in the conditions of „data overload“, the biggest

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<sup>2</sup> Regarding the use of the phrase „international country rankings“, it is important to emphasize that this paper discusses its colloquial use, and that the term „country“ is not solely used as a synonym for a sovereign, universally internationally recognized state. Namely, most international country rankings include, in addition to states, territorial units which according to international law cannot be considered as states, as well as entities that represent their integral parts.

<sup>3</sup> In 1963, during a leading American informal economic forum „The Economic Club of New York“, US President John F. Kennedy coined aphorism „a rising tide lifts all boats“, to emphasize the importance of boosting one country's overall economic activity to increase the standard of living of each of its citizens (J. F. Kennedy Presidential Library and Museum 2016).

challenge for those subjects is no longer the access to certain information content, but the handling of its large amount. Since these rankings summarize entire sets of different indicators and from different angles evaluate the investment and business climate of countries, the question arises whether today the global investment and business community perceive them as a kind of guarantors of optimal allocation of economic resources in transition economies.

By simply looking at the dynamics of the growth of international country rankings, from the end of the XX century to the present, it can be concluded with certainty that there is an increasing tendency for globally promoted indicators of economies in the form of ranks to evolve into a new, autonomous, factor of national economic growth and development. However, when it comes to scientific community, it can be said that there is a heated debate about this issue, which is understandable, since it is a relatively new phenomenon and that no serious and meticulous research of any kind has been done so far. The insights into the results of the previous research studies in the given issues reveal partial scientific knowledge, since in many cases the findings are limited to individual country rankings, while significant differences are present in their spatial and temporal coverage too. On the other hand, this is sufficient proof of the importance and attractiveness of studying the identified research problem, but also of the need to initiate a new scientific research to find out whether the epithet „development determinant” in the case of countries in transition can be given to international country ranking lists.

## **1. INTERNATIONAL COUNTRY RANKINGS AS A NEW SOCIO-ECONOMIC PHENOMENON: DEFINITION, GENESIS AND KEY DIMENSION OF ITS EXPANSION**

The international country rankings can most easily be understood as lists of a large number of selected countries, that is, institutionalized, administrative and territorial units, comparatively ranked according to the common set of indicators in descending order. These lists are created by allocating a certain number on the scale of descending order to each country covered by the ranking system, thus marking its place on it. The number is the result of the total scalar value obtained by applying the selected composite index. From this it can be concluded that these indices are essentially the key element in understanding and conceptualizing the novelty produced by the last wave of globalization, which is covered by the „international country rankings” phrase. Namely, by integrating several different indicators, according to a pre-formulated model, a unique aggregate measure of their success in their field is obtained, as a sort of summary picture of the observed multi-dimensional phenomenon which could not be adequately explained by the application of an analytical indicator (Nikolic 2019).

International country rankings represent a relatively new phenomenon, since the beginnings of its expansion can only be tied to the last decade of the 20th century. The level of popularity and attention given to it in a global context nowadays clearly indicates that this expansion does not have the characteristics of a spontaneous process. Therefore, the identification of the factors involved in the emergence and pandemic rise of this complex phenomenon is a necessary prerequisite for a proper understanding of its exact nature.

Each ranking is based on measurement. However, human tendency to measure everything and reduce the results of that measurement to a simple number is not just a feature of the last wave of globalization. The long history of measurement is shown best through the evidence of ancient measuring units for length, such as thumb, inch, elbow, etc, which were in use even thousands of years B.C. The epochs of development of human society changed, but numbers remained the basic and universal language throughout each of them. That is the basic logical explanation for people's constant effort to understand and explain numerous social phenomena and processes by measuring, transforming their qualitative characteristics into numerical information. Furthermore, the development of mathematics and statistics enabled evaluation and classification of measurement results via measurement scales, which resulted in the emergence of rankings as a kind of upgrade of the evaluation itself and it served as a starting point for linking it to different fields of human activity. Langville and Meyer (2012), in their work „Who's # 1 ? : The Science of Rating and Ranking,“ point out that the decisions we make today about which product to buy, movie to watch, faculty go etc, are largely determined by the rating grades and ranking lists. Referring to numerous examples from different social spheres, such as tables showing the rankings of sport clubs, national and international ranking lists of higher education institutions and scientific journals, „Facemash“, „Google's PageRank system“, etc, the two authors conclude that such a prevalence of rating and ranking in practice clearly indicates the tendency to separate them into a new scientific discipline.

What exactly contributed to the overall use of ranking and its dynamic progress? The fact that measurement scales are the key factor in the development of this phenomenon was easy to determine. However, the answer to the question of what contributed to its expansion is not at all simple, as it requires a comprehensive analysis of global flows several decades back. Speaking of causes, it is necessary to put at the forefront the achievements in the field of information and communication technologies as the basic generators of change in modern society. In addition to the rapid increase in the use of computers and the increasing digital literacy of the world population, the expansion of the country rankings has been favoured by the emergence and mass use of the Internet, as well as freedom given to individuals to create information freely, consume it and share it with others.<sup>4</sup> Bearing in mind the fact that the Internet itself does not have a self-regulating and controlling mechanism of content and validity of published information, it is clear why it has assumed primacy in the global media scene and has suppressed the „traditional“ media (television, radio and print) and therefore became the main channel for authors of international country rankings for free information flow to the global auditorium.<sup>5</sup> The Internet access is simple and easy, which resulted in the hyper-

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<sup>4</sup> Internet, as a publicly accessible computer networks, characterized by Dave Barry (1996) as the most important invention in the history of human communication since the appearance of the telephone, is a cognitive, information and communication tool, sales and marketing channel, but also the most powerful and fastest growing medium, the size of which the audience is best reflected by data of the International Telecommunication Union (2019) of an impressive 3.9 billion users, ie. Internet subscribers, at the end of year 2018 (about 51.2% of the total human population).

<sup>5</sup> In addition to the dynamic development of network infrastructure, which enables broadband Internet connection and a high rate of penetration in the global society, a „built-in“ role of this factor in the expansion of international country rankings is the built image of the Internet as a source of information in the eyes of its users.

production of data in electronic form, which in turn created one specific „problem“ of modern society – information overload. The abundance of information and pluralism of their sources on the one hand, the need for their rapid processing and differences in cognitive skills of people on the other, have made rankings a suitable format for presenting simple and comprehensible information, modified to the cognitive needs of heterogeneous user groups. Also, the importance of high-level data links between the Internet and the classical communication media should not be forgotten, where, due to requests for up-to-date and fast publishing of information, journalists and editors-in-chief of newspapers, radio and television, are increasingly relying on mere quoting of the press release. This is presented by different internet sources, without distinguishing whether the creator of that particular content is an eminent scientific institution and research centre or someone who approaches this type of research extremely superficially.<sup>6</sup> Furthermore, the development of the international statistical system (expanding the domain of official statistics, introducing and respecting fundamental principles of statistical activity and international statistical standards, interoperability of the international statistical system, etc) played also an indisputably important role in the expansion of the international country rankings. Talking about the driving forces of the development of the international ranking industry, it is important to mention the reasons for country comparison, as international rankings have a very important applicative value in the field of comparative policy research and generally international benchmarking.<sup>7</sup> Namely, in „Issues and Methods in Comparative Politics: An Introduction“, Landman (2003, 4) points out that the innate human need for comparison and the desire of people to understand the world around them as a contemplative and social human beings, resulted in having countries as the objects of comparison.

In order to understand the phenomenon of international country rankings fully, it is necessary, apart from identifying immediate causes of its rapid expansion, to recognize the directions, ie. dimensions of this expansion. In the first place, what is emphasised is the continuous increase in the quantity of „macro“ statistical indicators that enable the

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The results of a growing number of research studies indicate that the Internet has no longer the status of an „alternative“ tool for formulation of public opinion, which should certainly be linked to the attitude of the global public on the credibility of the information provided through this media channel. Despite the fact that much of this information is uncensored and of questionable quality, reliability and accuracy, by reviewing some of the recent research (e.g. Johnson and Kaye 1998; Forbes 2009; Center for the Digital Future 2013), it can be concluded that there is a relatively high level of trust in it. This is certainly in favour of the authors of international country rankings, which using their image, ie already acquired reputation capital, seek to influence the public's perception of the credibility of their ratings.

<sup>6</sup> The gap between the journalists and scientific community was highlighted by the European Commission (2007) in a report called Survey of Researchers and Media Professionals, pointing out that only 20% of scientific workers have direct and continual contact with journalists. Insufficient interaction between these communities was confirmed by a research study done by Peters (2013), according to which the majority of scientists (60-79%) from the 5 countries taken as a sample stated that they conducted only one professional interview with journalists, in the interval from 2010 to 2013.

<sup>7</sup> Comparative politics, as a relatively new sub-discipline of international politics and one of the key sub-fields of political science, deals with the comparison of countries, and above all their political systems. More about comparative politics read in „Comparative Politics: Interest, identities, and institutions in a changing global order“ (Kopstein and Lichbach 2005).

Modifying the definition by Harrington (1996), international benchmarking could be explained easily as a systematic and continuous process of measuring and comparing performances of selected country to performances of country that is characterized as a leader and serves as a benchmark, all with the aim of achieving excellence, i.e. obtaining information about best model (recipe) to improving the performance of a given country.

creators of these lists to conduct many different comparative analyses of the countries, through various combinations of national indicators by their aggregation into composite indices.<sup>8</sup> Further, the number of subjects that create and publish international country rankings is also increasing steadily. The creators of those ranking lists can be classified into several basic groups (Bandura 2005, 10): *public (government) institutions* as WB, UNDP, WHO, Transparency International, European Commission, etc., *private, ie. non-governmental (for-profit) institutions* as Moody's Investor Service (Moody's), Standard & Poor's (S&P) and Fitch Ratings (Fitch), *private, ie. non-governmental (nonprofit) institutions* as numerous institutes and research centers (especially those organized as „think tank”), *higher education institutions* as Columbia University, Yale University, London Business School etc, and *individuals* (for example Robert Prescott-Allen, James Gwartney and Robert Lawson, Raghbendra Jha and K.V. Bhanu Murthy, Anthony Annett, etc). The exact number of those who publish ranking lists of this type cannot be established with certainty at this time, especially with the dynamics of „production“ of new indeces in mind. In addition, it is not unusual for one author to publish several different rank lists (WEF, WB, WMRC, European Commission, etc). However, what can be certainly accepted as true is that this industry branch can be characterized as „highly concentrated“, when it comes to the number of participants on the supply side. Talking about the basic dimensions of expansion of this social phenomenon, it is necessary to point out so-called network coverage of different areas of social reality with international country rankings. Namely, the range of issues related to country rankings is constantly expanding, thus nowadays there is virtually no sphere of social life that is not covered by them. Kelley and Simmons (2015) have proved that most elements of the set on these lists „deal“ with economic issues, while some other social spheres, such as human rights, health, education, etc, are represented to a much lesser extent. This points further to the conclusion that the creators of international country rankings put the focus of their interests on economic processes and relations in society to the greatest extent, all with the aim of shaping them according to their own interests and goals.

## 2. THE ECONOMIC ASPECT OF THE INTERNATIONAL COUNTRY RANGINGS PHENOMENON

Since acquiring leadership position is the target of any subject that does business in the market economy system, and as numerous studies have demonstrated a positive correlation between increasing market share and increasing profitability (Jacobson and Aaker 1985; Mueller 1986; McGahan and Porter 1997; Buzzell 2004; Simon 2010; Etale, Bingilar and Ifurueze 2016), the main goal of all the creators of the country ranking lists

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<sup>8</sup> Paruolo, Saisana and Saltelli (2010, 609) in book „Ratings and rankings: voodoo or science?“, quintuple increase in search results on Google Scholar by keyword „composite index“, over a five-year period, taken as a clear sign of the increasing popularity worldwide. Namely, according to this non-scientific research, the number of results that Google Scholar listed for a given phrase in October 2005 was 992, while in December 2010 that number was increased to 5,340. If search by the same tool is limited to a period from 2010 to 2019, an impressive 1.62 million results will be obtained, which clearly indicates a more than dynamic continuation of the growth of the use of aggregate indices in the research community, but also a high level of acceptance by the general audience.

is to achieve the status of a monopolist in the „market” of information about global economic processes and relations. In their case, higher market share means more power, ie. greater opportunity in landscaping the development of the world economy.<sup>9</sup> Since the commercial value of information published through ranking lists lies not in their possession but in their use, for their creators it is crucial to use it in accordance with a well-defined intent. For this reason, it is necessary to keep in mind that the ranking system is not only a simple list of countries sorted in a specific order according to a predefined methodological framework, but a carefully designed and generously funded project, targeted activity on the object of the operation and consequently non-materialised product that the customers should use according to the exact instructions given by its creator.

In an effort to point out a plenty of different options for applying ranking lists that take the economic system of countries as the basic unit of analysis, Bandura (2005, 10) emphasizes the following as their basic purpose:

- Simplification of complex economic phenomena and processes, looking at the economic performance of countries and pointing out to their changes across the spatial and temporal horizons;
- Assessment of a country's progress towards international commitments (such as the Millennium Development Goals (MDGs), Official Development Assistance (ODA) and Social goals), the degree of implementation of Europe 2020: A strategy for smart, sustainable and inclusive growth, etc.);
- Informing national policy makers about the state and prospects of countries' development, but also pointing out the existence of certain gaps, which should be mitigated and bridged through the implementation of certain reform measures;
- Informing domestic and foreign investors about the economic potential of countries and the conditions of business and investment in them;
- Using given ranking lists as practical tools by decision makers, ie. national and supranational actors (governments of countries, international and other organizations), in defining priorities in the development trajectory of economic systems, but also as a means of analysing domestic and foreign investors when considering the location of an investment venture; and
- Providing additional tools to the academic community for conducting various research studies aimed at validating existing and acquiring new theoretical knowledge.

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<sup>9</sup> Talking about the distribution of market share among individual rankings that focus on the business environment of countries, in the absence of other, more complete and credible research, the results obtained in their analyses by Kelley and Simmons (2015) are mentioned. A study by the two authors, based on 10 related composite indicators for evaluating the quality of a country's business environment, a five-year time series, and searching for more than 50,000 different Internet sources, showed that market share between the country rankings surveyed was not evenly distributed and that the brand „Easy of Doing Business” dominates in regards to the other 9 indices (from 2010 to 2015, it was more present in the media than all other related indicators, together). Taking into account that World Bank put signature on this indicator, and that the author of the runner-up „Global Competitiveness Index” is also one of the „main players” in the world financial and economic scene, more precisely the World Economic Forum, it becomes clear to whom they owe it popularity and excellent reception among the global audience. Compared to the rankings published by international (governmental and non-governmental) organizations (mentioned by WB and WEF), the significantly lower market coverage of the economic systems of the countries of the world is characteristic of the lists created and published by higher education institutions, followed by various for-profit and nonprofit institutions and centers who act as „think tanks” and individuals (Index of Economic Freedom, Global Entrepreneurship Monitor, The Enabling Trade Index, etc.).



Considering the multiple possibilities of applying international country rankings makes it easier to identify all those subjects that play the key role in building their legitimacy among the global auditorium. More precisely, in order to affirm the creators of these lists as centers of political and economic influence, they need to be accepted by the general audience, i.e. by a large number of different types of users, who essentially represent the infrastructure necessary to establish a functional mechanism for coordinating pressure across different segments of global civil society. In this context, the primary consumers of international country rankings, relevant to the economic point of view are: 1) decision makers at the national level, above all creators of economic and development/stabilization policies 2) international (governmental and non-governmental) organizations and various other institutions of supranational character 3) aid donors 4) investors 5) scientific community 6) experts, journalists and other media actors, etc.

The tendency of every creator of the international country ranking list is to build as large user network as possible. Increasing the dispersion of information content, embodied in the form of these indicators, through different groups of subjects as subsets of the global public, creates greater social pressure on key actors in countries, with a view to reorienting their actions in a way that is acceptable and desirable from the perspective of publisher of those lists. In other words, the lists published by them represent what Nye (2011) calls the source of „soft power“, ie. a factor of informal influence that can significantly dictate the behavior of countries in international relations and model/exploit their economic space.

Despite the considerable number of scientific studies that prove that such rating/rating systems exhibit a significant amount of uncertainty about obtained results (Hoyland, Moene, and Willumsen 2009; Foster, McGillivray, and Seth 2009; Zampetakis and Moustakis 2010; Permanyer 2012), the fact is that these ranking lists cannot be ignored and that they have tacitly become an increasingly accepted standard of appreciation for the world's economic systems. According to Hoyland, Moene, and Willumsen (2009), it is undisputed that countries can lose a great deal in terms of their position and importance in the international relationships if they deny their assigned position on the list and do not react in the same way as predicted by its creator. Arndt (2009) also agrees with the cited authors, referring to the statements of leading international governmental and non-governmental organisations experts such as the World Bank, UNDP, etc. Speaking of contesting and publicly displaying distrust in the country ranking lists that cover different segments of economic processes in society, it is important to emphasise that the same goes for the developing economies of the world, which are usually positioned at the back of these lists. Namely, ranking lists that cover components of the business environment are perceived as a continuation of the „Washington Consensus“ (Girvan 2002, 23), an instrument for imposing the Anglo-Saxon model of the market economy as an ideal to the whole world. Thus, the pro-liberal course and the promotion of pro-market reforms are the key components of criticism that these countries refer to.

### 3. INTERNATIONAL COUNTRY RANKINGS AND EUROPEAN TRANSITION COUNTRIES — A RECIPE FOR FASTER ECONOMIC GROWTH OR AN EXAMPLE OF GOODHART'S LAW IN ACTION?

It is an indisputable fact that economic growth and macroeconomic stability are the key government priority. Guided by the fact that better positioning of a country on a ranking list, compared to other countries, ultimately contributes to its faster economic progress, country authorities often put economic and development national policy in the function of improving the rank, without taking into account the specifics of the economic system itself, and thus risking to neglect some other development goals, which might result in a more efficient allocation and utilization of available resources.<sup>10</sup> How important the country ranking is to governments is further confirmed by the fact that it has become a common practice to set up permanent and/or occasional government agencies and public bodies with the task of designing and systematically implementing measures to improve a country's position on these lists.<sup>11</sup>

With all of the above in mind, while taking into account the „historical truth“ of the results, or rather trials and failures of „Washington Consensus“ in post-communist countries, the following question arises as a logical question: Can a universal set of reform measures, which according to the recommendations of the creators of the international country rankings lead to a better positioning of one transition country, be really taken as a valid pattern of generating their economic growth and social well-being, or is it another example of Goodhart's laws in action?<sup>12</sup>

Speaking of the methodological approach in the research, due to the nature of the phenomena that are brought into the causal relationship, the study is relied on quantitative methodology, while simple linear regression analysis was applied as the basic statistical method. International country ranking lists, significant from the economic point of view, have been identified as independent (explanatory) variable (X), while foreign direct investment and economic growth were used as a measure of the development of a transition

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<sup>10</sup> This statement is supported by numerous speeches made by famous and well-known political leaders. As this paper focuses on countries in transition, the following is an example: Vladimir Putin, Russia's president, in 2012 ordered the Government of the Russian Federation to improve this country ranking on the Easy of Doing Business list for 70 places by 2015 and 100 places by 2018 (The Financial Times 2017); „The Government of the Republic of Serbia is fully committed to its fight against shadow economy and continues its work on improving Serbia's ranking on the Doing Business list, said Serbia's president Aleksandar Vucic (CorD Magazine 2019);

<sup>11</sup> For example, the Serbian Government and NALED established, at the end of 2014, two joint bodies-The Expert Group for the National Program for Countering the Shadow Economy and the Joint Group for Improving Serbia's Position on the World Bank's Doing Business List.

<sup>12</sup> University professor and former member of the Bank of England's Monetary Policy Committee, Charles Goodhart (1975), established in 1975 a law whose original formulation was: „Any observed statistical regularity will tend to collapse once pressure is placed upon it for control purposes.“. Putting this definition in context with the economic sphere of society, or more precisely the theory of rational expectations, it can be reformulated into the assertion that a particular economic entity whose output/goal is measurable by a certain quantitative indicator will seek to optimise its behavior in accordance with a given measure regardless of whether it will ultimately produce a positive or negative outcome. Namely, being aware of the possible implications of its behavior that is subject to monitoring and measurement, the observed entity begins to identify the measure as the goal, and according to Goodhart such a measure can no longer be considered a „meaningful indicator“ due to the loss of information content it initially had. The action of this law is most clearly and simply described in the following sentences: „When a measure becomes a target, it ceases to be a good measure.“ (Strathern 1997) and „Any observed statistical regularity will tend to collapse once pressure is placed upon it for control purposes.“ (Daniselsson 2002).

economy, i.e. dependent variables ( $Y_1$  and  $Y_2$ ).<sup>13</sup> „Easy of Doing Business Index“, „Global Competitiveness Index“, „Index of Economic Freedom“ and „Human Development Index“ were selected for independent representatives, ie. explanatory variable, while foreign direct investment, net inflows (BoP, current US\$) and gross domestic product (GDP, current US\$) were used as the indicators of dependent variable  $Y_1/Y_2$ . When it comes to the indicators of an independent variable, it is important to note that the statistical analysis uses scalar values of indices instead of ranks, for the simple reason that the values of the index provide more relevant insight into the ratings of economies by given criteria, as well as their progression and stagnation on given scales over time.<sup>14</sup> An additional reason for using scalar values is the fact that in the case of using ranks, only the correlation could be calculated, but not a simple regression.

The research framework, including 16 economies (all countries in transition from Europe), covered the period from 2009 to 2017. With respect to the given period, this research study took into account the fact that changes in the foreign direct investment inflows and gross domestic product, on the one hand, and changes in a given economic entity registered by the above composite indices, on the other hand, are not simultaneous and there is a certain time lag between them. Namely, the effects of progression/regression on international country ranking lists in period  $t$  cannot be instantaneously reflected in foreign direct investment, net inflows and gross domestic product. That takes some time (a year or longer). If this fact were neglected, that is, if only an econometric model were used, in which the values of both dependent and independent variables are from the same time period ( $t$ ), many important information could be lost from the analysed data and inaccurate results could be obtained, so it could lead the research to the wrong path and its conclusions and recommendations could be wrong. For this reason, the dynamic nature of these processes is not neglected in the analysis, so the independent variable from period  $t$  was treated symmetrically and with „time-lagged“ dependent variables. Although the dependent variables can be „moved forward“ for different time periods ( $t + 1, 2, 3...$ ) because of large dataset used in the statistical analysis, this study is limited to one year. It means this research examined whether the values of the dependent variables in period  $t$  and  $t+1$  change depending on the change in the value of the independent variable from period  $t$ , and if so, to what extent.

### 3.1. Discussion

In order to facilitate the interpretation of the cause-and-effect relationship between the scalar values of „Easy of Doing Business Index“, „Global Competitiveness Index“, „Economic Freedom Index“, „Human Development Index“ and FDI, net inflows/ FDI, net inflows <sub>$t+1$</sub>  selected 16 economies, table presentation of analysis results is used (Table 1, author's calculation).

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<sup>13</sup> The control variables were not used in research.

<sup>14</sup> An economy can improve its position in the rankings without achieving a better overall result if some other economies, better ranked than in the previous period, have shown a setback in the given year. Different scenarios are possible too. Specifically, a ranked economy may show a decline or absence of prosperity, despite the fact that the index reached higher index values in a given year than in the previous period if other economies of that year were assigned significantly higher index values, etc.

**Table 1.** Results of the regression analysis on the impact of international country rankings, relevant for the economic point of view, on foreign direct investment, net inflows/foreign direct investment, net inflows<sub>t+1</sub> 16 European countries in transition: 2009–2017

		„Easy of Doing Business Index“ <sub>t</sub>	„Global Competitiveness Index“ <sub>t</sub>	„Index of Economic Freedom“ <sub>t</sub>	„Human Development Index“ <sub>t</sub>
FDI <sub>t</sub> (net inflows)	Presence of a linear relationship between two variables	-Romania (direction of the linear relationship: positive (+); strength of the linear relationship: $r^2=0.8291$ )	-Albania (direction of the linear relationship: positive (+); strength of the linear relationship: $r^2=0.5188$ )	/	-Romania/ Slovenia and Montenegro (direction of the linear relationship: positive (+); strength of the linear relationship: $r^2=0.5435$ / $r^2=0.6437$ and $r^2=0.5254$ )
	Absence of a linear relationship between two variables	-15 countries	-15 countries	-16 countries	-13 countries
FDI <sub>t+1</sub> (net inflows)	Presence of a linear relationship between two quantitative variables	/	-Romania (direction of the linear relationship: positive (+); strength of the linear relationship: $r^2=0.5414$ )	-Romania (direction of the linear relationship: positive (+); strength of the linear relationship: $r^2=0.7142$ ) -Montenegro (direction of the linear relationship: negative (-); strength of the linear relationship: $r^2=0.341$ )	-Romania (direction of the linear relationship: positive (+); strength of the linear relationship: $r^2=0.6224$ )
	Absence of a linear relationship between two quantitative variables	-16 countries	-15 countries	-14 countries	-15 countries

Based on the results presented, it can be concluded that changes in the FDI, net inflows of a country in transition are not positively correlated with a change in its position on international country ranking lists, significant from the economic point of view. The existence of a positive linear relationship between the dependent and the independent variables of the observed phenomena was found in a very small number of countries from the study of the population covered. Therefore, it is justified to say that the leading international country rankings, relevant from an economic point of view, do not represent a reliable instrument for creating a national strategy of attracting and stimulating foreign direct investment in countries in transition. Viewed from the perspective of foreign investors, this also means that these lists cannot be viewed as a reliable tool when considering a particular transition country as an investment location.

In order to facilitate the interpretation of the cause-and-effect relationship between the scalar values of „Easy of Doing Business Index“, „Global Competitiveness Index“, „Economic Freedom Index“, „Human Development Index“<sub>t</sub> and gross domestic product/gross domestic product<sub>t+1</sub> selected 16 countries, table presentation of analysis results is used (Table 2, author's calculation).

**Table 2.** Results of the regression analysis on the impact of international country rankings, relevant for the economic point of view, on gross domestic product/gross domestic product<sub>t+1</sub> 16 European countries in transition: 2009–2017

		„Easy of Doing Business Index“ <sub>t</sub>	„Global Competitiveness Index“ <sub>t</sub>	„Index of Economic Freedom“ <sub>t</sub>	„Human Development Index“ <sub>t</sub>
GDP per capita <sub>t</sub> (current US\$)	Presence of a linear relationship between two quantitative variables	- Latvia (direction of the linear relationship: positive (+); strength of the linear relationship: $r^2=0.5861$ )	-Bosnia and Herzegovina/ Latvia and Poland (direction of the linear relationship: positive (+); strength of the linear relationship: $r^2=0.5438/ r^2=0.4505$ and $r^2=0.4523$ )	-Lithuania/ North Macedonia and Romania (direction of the linear relationship: positive (+); strength of the linear relationship: $r^2=0.0708/ r^2=0.3178$ and $r^2=0.2289$ )	-Estonia/ Latvia and Lithuania (direction of the linear relationship: positive (+); strength of the linear relationship: $r^2=0.702/ r^2=0.5739$ and $r^2=0.5881$ )
	Absence of a linear relationship between two quantitative variables	-15 countries	-13 countries	-13 countries	-13 countries
GDP per capita <sub>t+1</sub> (current US\$)	Presence of a linear relationship between two quantitative variables	/	-Czech Republic (direction of the linear relationship: positive (+); strength of the linear relationship: $r^2=0.6653$ )	/	-Estonia (direction of the linear relationship: positive (+); strength of the linear relationship: $r^2=0.5379$ )
	Absence of a linear relationship between two quantitative variables	-16 countries	-15 countries	-16 countries	-15 countries

Based on the results presented, it can be concluded that the trend of change of gross domestic product in a country in transition is not positively correlated with the changes in its position on international country ranking lists, significant from the economic point of view. The existence of a positive linear relationship between the dependent and the independent variables was found in a small number of countries within the defined spatial framework of the research. This leads to the conclusion that the leading international country ranking lists, covered in this paper, do not represent a reliable model for creating national strategy and policy of economic development for countries in transition.

On the basis of all previously implemented testing steps, a general conclusion can be drawn about the unreliability and questionable practical applicability of these measures/indicators from the perspective of their primary users, and it can be concluded that, due to the manifestation of the so-called Goodhart's law, the economic dimension of the phenomenon of international country ranking can be put in context with a number of economic and social anomalies that have arisen from or are (indirectly) related to this form of social activity.

## CONCLUSION

What the strongest proponents and fiercest critics of economic reforms inspired by the „Washington Consensus“ agree on is that this set of neoliberal strategies have failed in the transition processes of post-communist societies. Giving a critical review of the World Bank study „Economic Growth in the 1990s: Learning from a Decade of Reform,“ Harvard University professor Danny Rodrick (2006) notes that no one really believes in this „model for accelerated economic development in transition countries“, therefore, the question that must now be asked is not: „Is the Washington consensus dead or alive?“ but rather, „What will replace it?“ The answer to this question is related to the international country ranking lists.

This relatively new socio-economic phenomenon presents a continuation of the standard economic policy reform package propagated by the doctrine of neoliberalism. It is a well-designed marketing project led by certain interest groups and centres of power that seek to remold the economic and political map of the world and shape the image of countries by creating „distorted mirror images“ for the global audience. Numerous advantages of the concept of country ranking (summarizing multidimensional economic processes and relations, providing a comprehensive but simplified picture of economic systems and facilitating comparisons of them, easier monitoring of changes in the performance of countries across space and time, etc) have resulted in an extremely compelling theoretical concept which, judging by the results of this research study, does not have sufficient explanatory power in practice.

This research has led to the realization that, in the defined spatial and temporal context, international country rankings cannot be considered as a new autonomous factor of economic development (i.e. it is wrong to use them as an instrument for forecasting macroeconomic and economic trends, and that creating national development policies and strategies by blindly following the guidelines of the authors of these lists cannot be a guarantee of greater economic well-being for a society in transition). This is why the sentence: „Why is it worth rushing if we are going in the wrong direction“, authored by the English writer Kipling (1894, 29), is metaphorically best and can reflect the absurdity of the increasingly pronounced practice among transition countries that strategies and plans for the development trajectory of their own economies are put into service, not by objective and necessary economic processes and relationships, but by blindly following the recommendations of the creators of these international rankings. Instead of adopting the „one size fits all“ reform model, it is necessary to take the specifics of each individual economic system into account when designing a package of reform measures to improve it! The same conclusion can be drawn when it comes to the reliability of international country rankings as criteria and tools in the decision-making process regarding the direction and management of investment and business activities of participants in economic life. However, if we look at the results of the research in a slightly broader context and link it with the existing body of scientific knowledge about this social (economic) phenomenon, it can still be said with a certain amount of certainty that international country rankings are slowly, and tacitly, becoming a more accepted standard for evaluating the performance of the world's economic systems, thus paving the way to them becoming a „temple of the basic determinants of neoliberal capitalism“

and gaining the status of an autonomous factor of the economic development of countries, ie. new developmental determinants of modern society.

## REFERENCES

- Arndt, Christiane. 2009. Governance indicators. PhD diss., Maastricht University, Maastricht. <http://digitalarchive.maastrichtuniversity.nl/fedora/get/guid:aab7a7d4-7c97-4299-941b-be8c692a58bb/ASSET1> (accessed June 26, 2019).
- Bandura, Romina. 2005. Measuring Country Performance and State Behavior: A Survey of Composite Indices. UNDP/ODS Background Paper, Office of Development Studies United Nations Development Programme (UNDP), New York. [http://www.undp.org/content/dam/undp/library/corporate/Development%20Studies/measuring\\_country\\_performance\\_2005.pdf](http://www.undp.org/content/dam/undp/library/corporate/Development%20Studies/measuring_country_performance_2005.pdf) (accessed June 20, 2019).
- . 2008. A Survey of Composite Indices Measuring Country Performance: 2008 Update. UNDP/ODS Working Paper, Office of Development Studies United Nations Development Programme (UNDP), New York. [http://old.usc.ac.ir/IPWebV1C035/TemplateFileFolder/10-8-2013/OriginalFolder/0a6e29c4-1fa6-4496-a362-000f0851d4fc\\_indices\\_2008\\_bandura.pdf](http://old.usc.ac.ir/IPWebV1C035/TemplateFileFolder/10-8-2013/OriginalFolder/0a6e29c4-1fa6-4496-a362-000f0851d4fc_indices_2008_bandura.pdf) (accessed June 20, 2019).
- Barry, Dave. 1996. In *Cyberspace*. New York: Crown Publishing Group.
- Buzzell, Robert D. 2004. The PIMS program of strategic research: A retrospective appraisal. *Journal of Business Research* 57 (May): 478–483.
- Center for the Digital Future. 2013. The 2013 Digital Future Report. *Surveying The Digital Future*. <http://www.digitalcenter.org/wp-content/uploads/2013/06/2013-Report.pdf> (accessed June 10, 2019).
- Cord Magazine (2019). Working With NALED Opens Doors To The Civil Sector. <https://cordmagazine.com/interviews/aleksandar-vucic-prime-minister-republic-serbia-working-with-naled-opens-doors-to-the-civil-sector/> (accessed June 20, 2019).
- Danielsson, John. 2002. The Emperor Has No Clothes: Limits to Risk Modelling. *Journal of Banking & Finance* 26 (7): 1273–1296.
- Etale, Lyndon M., Paymaster F. Bingilar, and Meshack S. Ifurueze. 2016. Market share and profitability relationship: A study of the banking sector in Nigeria. *International Journal of Business, Economics and Management* 3 (8): 103–112.
- European Commission. 2007. *Survey of Researchers and Media Professionals*. [http://ec.europa.eu/research/conferences/2007/bcn2007/executive\\_summary\\_en.pdf](http://ec.europa.eu/research/conferences/2007/bcn2007/executive_summary_en.pdf) (accessed June 11, 2019).
- Forbes. 2009. Why Do People Trust The Internet More? <http://www.forbes.com/2009/06/17/media-newspapers-radio-television-opinions-columnists-john-zogby-internet.html> (accessed June 21, 2019).
- Foster, James, Mark McGillivray, and Suman Seth. 2009. Rank Robustness of Composite Indices. OPHI Working Paper 26, Oxford Poverty & Human Development Initiative, University of Oxford. [https://www.ophi.org.uk/wp-content/uploads/OPHI-wp26\\_vs5.pdf](https://www.ophi.org.uk/wp-content/uploads/OPHI-wp26_vs5.pdf) (accessed June 26, 2019).
- Girvan, Norman. 2002. Problems with UNDP governance indicators: Political and cultural bias in governance indicators. Eldis Programme. [http://www.eldis.org/go/home&id=44002&type=Document#.V2BQ\\_eQt3qV](http://www.eldis.org/go/home&id=44002&type=Document#.V2BQ_eQt3qV) (accessed June 26, 2019).
- Goodhart, Charles A. E. 1975. Problems of Monetary Management: The UK experience. In: *Monetary Theory and Practice*. London: Palgrave.
- Harrington, James. H. 1996. *The Complete Benchmarking Implementation Guide: Total Benchmarking Management*. New York City: McGraw-Hill.
- Hoyland, Bjorn, Karl Moene, and Fredrik Willumsen. 2009. The Tyranny of International Index Rankings. *Journal of Development Economics* 97 (1): 1–14. <http://folk.uio.no/carlhk/tirsdayssem/TyrannyIndexRankings.pdf> (accessed June 27, 2019).
- International Telecommunication Union. 2019. ITU releases 2018 global and regional ICT estimates. *For the first time, more than half of the world's population is using the Internet*. <https://www.itu.int/en/mediacentre/Pages/2018-PR40.aspx> (accessed June 10, 2019).
- Jacobson, Robert, and David. A. Aaker. 1985. Is market share all that it's cracked up to be? *Journal of Marketing* 49 (4): 11–22.

- J. F. Kennedy Presidential Library and Museum. 2016. *JFK in History: JFK on the Economy and Taxes*. <http://www.jfklibrary.org/JFK/JFK-in-History/JFK-on-the-Economy-and-Taxes.aspx> (accessed May 21, 2019).
- Johnson, Thomas J., and Barbara K. Kaye. 1998. Cruising Is Believing? Comparing Internet and Traditional Sources on Media Credibility Measures. *Journalism & Mass Communication* 75 (2): 325–340.
- Kelley, Judith G., and Beth A. Simmons. 2015. The Power of Ranking? The Ease of Doing Business as Soft Power. *Princeton Workshop on Ideas, Institutions, and Political Economy*. [https://www.sss.ias.edu/files/pdfs/Rodrik/workshop%2014-15/Kelley\\_Simmons\\_EDB\\_22Mar15v2.pdf](https://www.sss.ias.edu/files/pdfs/Rodrik/workshop%2014-15/Kelley_Simmons_EDB_22Mar15v2.pdf) (accessed June 22, 2019).
- Kipling, Rudyard. 1894. *The Jungle Book*. London: Macmillan.
- Kopstein, Jeffrey, and Mark Lichbach. 2005. *Comparative Politics: Interest, identities, and institutions in a changing global order*. Cambridge: Cambridge University Press.
- Landman, Todd. 2003. *Issues and Methods in Comparative Politics: An Introduction*. 3rd Edition. Abingdon: Routledge.
- Langville, Amy N., and Carl D. D. Meyer. 2012. *Who's #1?: The Science of Rating and Ranking*. New Jersey: Princeton University Press.
- McGahan, Anita M., and Michael E. Porter. 1997. How much does industry matter, really? Special issue, *Strategic Management Journal* 18(S1): 15–30.
- Mueller, Denis C. 1986. *Profits in the long run*. Cambridge: Cambridge University Press.
- Nikolic, Marijana. 2019. In press. International country rankings as a socio-economic phenomenon and a new instrument of a global government soft power. *Acta Economica*.
- Nye, Joseph S. 2011. *The Future of Power*. New York: Public Affairs.
- Paruolo, Paolo, Michaela Saisana, and Andrea Saltelli. 2013. Ratings and rankings: Voodoo or science? *Journal of the Royal Statistical Society* 176 (3): 609–634.
- Permanyer, Inaki. 2011. Uncertainty and robustness in composite indices rankings. *Oxford Economic Papers* 64 (1): 57–79.
- Peters, Hans Peter. 2013. Gap between science and media revisited: Scientists as public communicators. *Proceedings of the National Academy of Sciences of the United States of America* 110 (Suppl. 3): 14102–14109. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3752168/> (accessed June 21, 2019).
- Rodrik, Dani. 2006. Goodbye Washington Consensus, Hello Washington Confusion? A review of the World Bank's Economic Growth in the 1990s: Learning from a Decade of Reform. *Journal of Economic Literature* 44 (4): 973–987.
- Simon, Hermann. 2010. *Hidden Champions of the 21st Century*. New York: Springer Science&Business Media.
- Strathern, Marilyn. 1997. Improving Ratings: Audit in the British University System. *European Review* 5 (3): 305–321.
- The Financial Times. 2017. Russia and India climb World Bank's Doing Business rankings. <https://www.ft.com/content/9eacc6e-bddc-11e7-b8a3-38a6e068f464> (accessed June 28, 2019).
- Zampetakis, Leonidas A., and Vassilis S. Moustaks. 2009. Quantifying uncertainty in ranking problems with composite indicators: a Bayesian approach. *Journal of Modelling in Management* 5 (1): 63–80.