

APPLICATION OF MAJR AGGREGATE MEASURE IN THE GOVERNANCE QUALITY TESTING IN THE EU-28

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Abstract: The type of governance applied in an economy as well as its quality determines the quality of life. Decisions that result in the improved governance quality should be preceded by operationalisation of this category and by the related research. The purpose of this article is to present the concepts of governance and good governance as well as to propose the application of an aggregate measure of the governance quality constructed on the basis of the World Bank indices in the time cross-sectional analysis of 28 EU member states over the period of 2002-2012.

Keywords: good governance, aggregate measure of governance quality

INTRODUCTION

Institutional solutions in economy are largely conditioned by cultural, historical, geographical, political and social factors. Therefore, adopted in the economy, institutional solutions create specific conditions for the functioning of the entities, allocation of resources and realization of individual and social interests [Miłaszewicz 2011, Miłaszewicz 2013]. Being the area for functioning of two principal mechanisms of human activity, i.e. the state and the market, the type of institutional order influences the local economic performance. Consequently, a high level of social development and quality of life can not be reached without a good quality institutional environment.

While the market mechanism functions more effectively when the state supports it by creating right institutional conditions (e.g. by defining property rights), the state itself can improve or sometimes eliminate its weaknesses by making public institutions and the public sector function better. In other words, the state can act upon the advantage of the governance quality. In view of the good governance concept, proper institutional solutions, that shape the governance and affect its quality, contribute to lower transaction costs, reduced insecurity, more stable business environment as well as to the sustainable, socially acceptable growth and improved quality of life. At the same time they involve the members of society into the process of public decision making [Miłaszewicz 2011, 11]. This is why it is so important for any process of public sector restructuring, which is undertaken in many economies, to operationalise the categories of the governance quality, to run studies on it and compare the results of its assessment.

The purpose of the theoretical part of this article is to present the concepts of *governance* and *good governance*. In the empirical part the authors demonstrate how the aggregate measure of governance quality constructed on the basis of six World Bank indicators can be used in a cross-sectional and temporal analysis. The analysis covers the time period of 2002-2012, while the cross-sectional area of research includes 28 Member States of the European Union.

GOVERNANCE AND ITS QUALITY - THE CONCEPT AND MEASUREMENT

Initially *governance* was the term which referred to the private sphere and businesses operating therein. For the last 30 years, however, it has been a term that is useful in explaining how the public sphere functions.

Governance is defined differently by various international organizations which, while evaluating its quality, build many measures that are used when making ranking lists of world or regional economies. The broadest understanding of *governance* has been proposed by the United Nations Organization according to which it is “the system of values, policies and institutions by which a society manages its economic, political and social affairs through interactions within and among the state, civil society and private sector. It is the way a society organizes itself to make and implement decisions — achieving mutual understanding, agreement and action. It comprises the mechanisms and processes for citizens and groups to articulate their interests, mediate their differences and exercise their legal rights and obligations. It is the rules, institutions and practices that set limits and provide incentives for individuals, organizations and firms. Governance, including its social, political and economic dimensions, operates at every level of human enterprise” [UNDP 2004].

According to the European Commission the way of governance refers to the capacity of the state to serve its citizens, which means that it cannot be regarded as

a specific public value. “*Governance* means rules, processes and behaviour by means of which public interests are expressed, resources managed and powers exercised. The main issues to be discussed in this context are: the way of exercising public functions, of managing public funds and exercising public regulatory powers” [CEC 2001]. Pointing out the openness and complexity of *governance*, the European Commission emphasises the practical importance of this concept which refers to the most principal aspects of functioning of every society and is the elementary measure of its stability and quality because it originates from the ideas of human rights, democratization and democracy, the rule of law, decentralisation and reasonable public administration. When, along the social development, the above ideas gain in importance, we should use the term *good governance* rather than *governance*.

Since the good governance concept is so rich in essence, it requires disambiguation of its basic elements, which are the subject of numerous studies. The World Bank, regarded as the concept precursor that also introduced it into the area of international studies, developed the methodology of evaluating its quality [Rudolf 2010]. This organisation defines the governance from the macro perspective as a set of processes and institutions by which the authority in a country is exercised. This includes the processes by which governments are selected, monitored and replaced, the capacity of the government to create and implement policies, and the respect of citizens and the state for the institutions that govern economic and social interactions among them. [Kaufmann et al. 2007].

Basing on this definition since 1996 the World Bank has studied the quality of governance in an increasing number of countries. Founding the studies on the concept of good governance and on defining its principal element, the World Bank examines the governance quality in six dimensions [Kaufmann et al. 2009]:

1. Voice and Accountability – assessing the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media;
2. Rule of Law – assessing the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights as well as capturing the independence and predictability of law enforcement (the police and the courts);
3. Regulatory Quality – assessing the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development as well as the credibility of the governmental policies;
4. Political Stability and Absence of Violence/Terrorism – assessing the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism;
5. Government Effectiveness – assessing the government's potential and the capacity of the civil service to offer public services, the degree of its independence

from political pressures the effectiveness of the budget and public debt management and the quality of policy formulation and the government credibility;

6. Control of Corruption – assessing the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.

In order to capture the progress of good governance implementation in different countries the World Bank uses the *Worldwide Governance Indicators* (WGI). The studies allow us to compare the changes that have undergone in the six aforementioned governance dimensions. The indicators that refer to each of them are constructed basing on several hundreds of variables capturing the perception of the governance quality. The variables come from 31 data sources created by 32 organisations around the world. Each indicator assesses one of the governance quality domains on a scale from +2.5 to -2.5 [Kaufmann et al. 2008].

Thus obtained indicators, which comprise many elements of actual performance of public institutions, allow to conduct a temporal and spatial comparative analysis of every governance dimension individually. In the course of comparing individual countries a lot of information is revealed concerning the quality of a particular dimension of their governance and the analysis of their success in implementing good governance in each of the dimensions.

Practically speaking, however, individual countries can have at the same time higher, lower or equal governance indicators depending on the country they are compared to. What is more, in case of each country the assessment of six governance quality dimensions can change over time in different directions. The more countries are compared regarding their indicators and the longer is the adopted period of study, the more difficult it is to conduct the analysis and to draw accurate conclusions. In order to eliminate these difficulties, further in this paper the authors use the aggregate measure of governance quality (MAJR) to conduct the analysis the purpose of which is to assess the trends and dynamics of changes in the governance quality in 28 countries over the period of 11 years. Before that, however, they describe the methodology of their study.

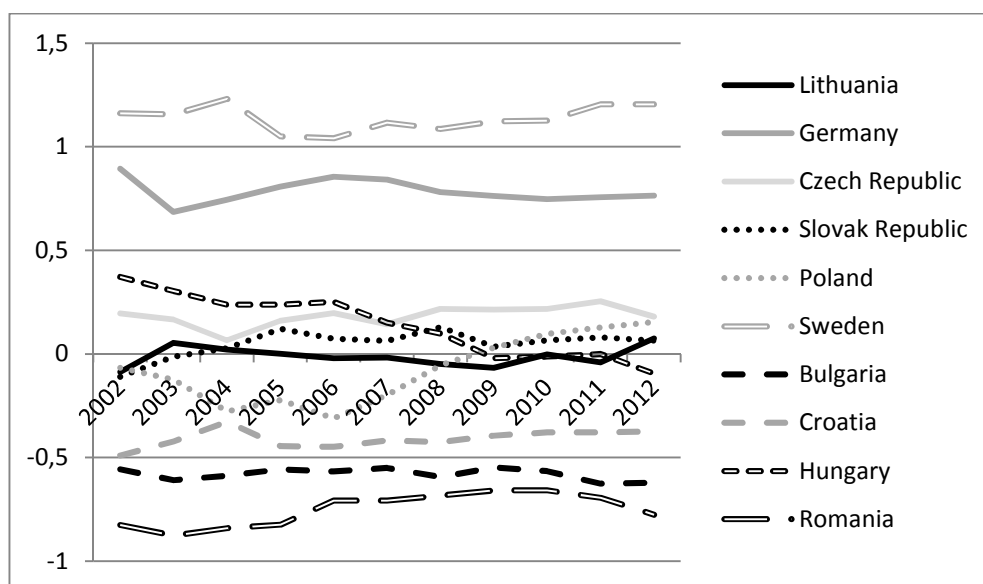
EMPIRICAL STUDIES

The MAJR measure was built by means of the method of the vector aggregate measure [Hellwig 1968, Kolenda 2006, Kukuła 2000, Nermend 2006, Nermend 2007, Nermend 2008a, Nermend 2008b, Nermend 2009]. The research procedure of constructing the measure described in the article was carried out in five stages: selecting, eliminating and standardizing variables, defining a pattern and an antipattern as well as defining a synthetic vectoral measure.

In order to conduct a comparative analysis of the governance quality in the EU-28 in the period of 2002-2012 the authors used six diagnostic variables being the stimulants in the construction of the MAJR aggregate measure:

- X_1 - Control of Corruption,
- X_2 - Government Effectiveness,
- X_3 - Political Stability and Absence of Violence/Terrorism,
- X_4 - Regulatory Quality,
- X_5 - Rule of Law,
- X_6 - Voice and Accountability.

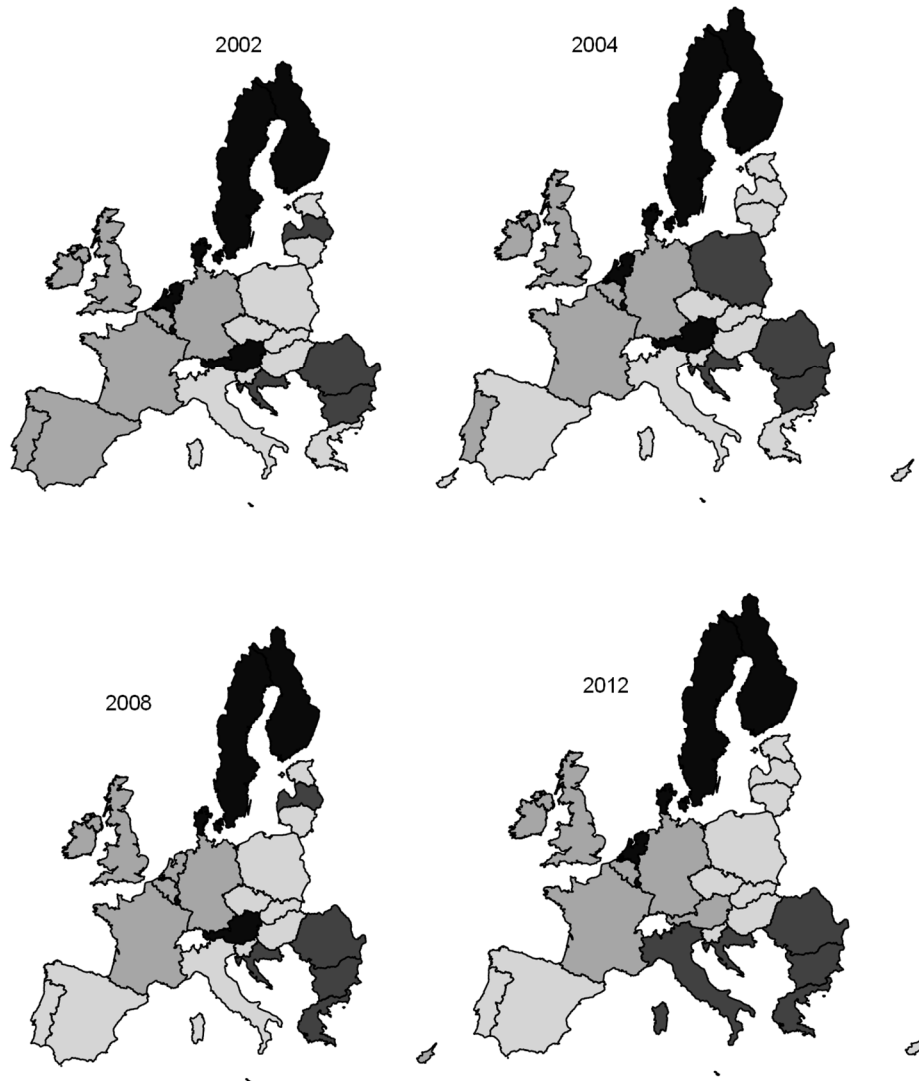
Figure 1. The comparison of MAJR for Poland with its values for the neighbouring countries as well as for the new EU Member States.



Source: developed on the basis of the author's own study results

The obtained values of MAJR indicate that in the period of observation the quality of governance in Poland was relatively low in comparison to other countries. And this is the only conclusion confirmed by other studies on the governance quality based on the WGI or other popular aggregate indicators [Wojciechowski et al. 2008]. Figure 1, however, allows for the assumption that starting from 2006 Poland has improved considerably its governance quality. It not only has caught up, but even surpassed some countries (such as Hungary, Slovakia and Lithuania) that, in almost the same time span, initiated the system transformation and joined the European Union on the same day as Poland. Despite the initial decrease up to 2004 and the period of stagnation in 2004-2005, the aggregate measure MAJR calculated for Poland started rising quickly after 2006. This upward trend slowed down a little in 2011-2012. These fluctuations distinguish Poland from other European countries where the measure values have been relatively stable or falling over the time of observation.

Figure 2. Classification of the EU-28 countries measured by means of MAJR in 2002, 2004, 2008, 2012.



Source: developed on the basis of the author's own study results

It should be noted that there is one more difference between Poland and the majority of other countries. Alike Finland, the Netherlands and Sweden, Poland belongs to this group of countries where governance quality improved after 2008. In the remaining part of Europe the world financial crisis led to the decrease in the governance quality. Hungary is another exception from this trend. After an initially high value of this measure in 2002, a steady downward tendency was observed, reflecting Hungary's transition from the group of countries with a medium level of

governance quality to the group where the governance quality is the worst in the EU-28.

Taking into consideration the countries that have recently joined the EU, in 2012 Poland, as well as the Czech Republic, could be regarded as the leaders in this group. Unfortunately, it lags far behind such developed countries as Germany or Sweden. The classification of the EU-28 countries in the period of observation can be found in Figure 2. The maps clearly show the division into the countries enjoying the high governance quality (classes one and two) and those where the MAJR measure values are average to low (classes three and four). Scandinavian countries are the leaders in this classification, while the new EU members prevail in the classes three and four. The lowest positions in the ranking belong to the most recent newcomers - Bulgaria, Romania and Croatia.

Also Greece is rated low, with its MAJR measure plummeting after 2008. In 2012 Greece, immediately behind Romania, was the country where the quality of governance was the worst among the 28 observed economies. What is more, in the same year the governance quality worsened (i.e. the value of the MAJR decreased) in Austria, Spain, Portugal and Italy, which is clearly demonstrated by their fall in the above classification.

CONCLUSIONS

The multi-aspect concept of *governance* at the national level is transformed, with the view to its operationalisation, into the rules of good governance. Thus created dimensions of the governance quality comprise a wide range of public tasks implemented on behalf of the society. Distinguishing these dimensions facilitates the observation and measurement of changes within each of them. Yet, the observation of changes in the constituent indicators does not make it easier to draw conclusions about the governance quality as a whole. Only the overall view allows to assess the governance and its modifications in the longer perspective, without referring to individual dimensions. In this article the authors carried out the comparative analysis of the governance quality in EU-28 expressed by means of the vector aggregate measure built of six constituent WGI indicators. The analysis allowed to divide the observed countries into four groups according to the level of their governance quality. Moreover, the authors could draw somewhat surprising conclusions from the analysis of the governance quality dynamics in individual countries, as well as from the cross-sectional study in the whole group.

REFERENCES

- Aczel A.D. (2000) *Statystyka w zarządzaniu*, Warszawa, PWN.
CEC (2001) *European Governance. A White Paper*, Commission of the European Communities, Brussels, 25.7.2001, COM(2001) 428 final.

- Hellwig Z. (1968) Zastosowanie metody taksonomicznej do typologicznego podziału krajów ze względu na poziom ich rozwoju oraz zasoby i strukturę wykwalifikowanych kadr, *Przegląd Statystyczny*, 4.
- Kaufmann D., Kraay A. (2007) Governance Indicators: Where Are We, Where Should We Be Going?, *Policy Research Working Paper*, No. 4370.
- Kaufmann D., Kraay A., Mastruzzi M. (2008) Governance Matters VII: Aggregate and Individual Governance Indicators 1996–2007, *Policy Research Working Paper*, No. 4654.
- Kaufmann D., Kraay A., Mastruzzi M. (2009) Governance Matters VIII: Aggregate and Individual Governance Indicators 1996–2008, *Policy Research Working Paper*, No. 4978.
- Miłaszewicz D. (2010) Fundamental Determinants of Economic Growth, [in:] *Economic Challenges of Contemporary World*, PRINT GROUP Daniel Krzanowski, Szczecin, 62-75.
- Miłaszewicz D. (2011) Jakość instytucji a wzrost gospodarczy, [in:] *Problemy teorii i polityki makroekonomicznej*, *Studia i Prace WNEiZ* nr 19, Szczecin, 5-24.
- Miłaszewicz D. (2013) Wolność ekonomiczna i sposób rządzenia jako uwarunkowania zrównoważonego rozwoju, [in:] Wolska G. (ed.), *Współczesne problemy ekonomiczne. Polityka państwa a procesy globalizacji*, *Studia Ekonomiczne Zeszyty Naukowe Uniwersytetu w Katowicach*, 139, Katowice, 103-113.
- Kolenda M. (2006) Taksonomia numeryczna. Klasyfikacja, porządkowanie i analiza obiektów wielocechowych, *Wydawnictwo Akademii Ekonomicznej im. Oskara Langego we Wrocławiu*, Wrocław.
- Kukuła K. (2000) *Metoda unitaryzacji zerowanej*, Warszawa, PWN.
- Nermend K. (2006) A synthetic measure of sea environment pollution, *Polish Journal of Environmental Studies*, Vol. 15, No. 4b, 127-129.
- Nermend K. (2007) Taxonomic Vector Measure of Region Development (TWMRR). *Polish Journal of Environmental Studies*, No. 4A.
- Nermend K. (2008) *Rachunek wektorowy w analizie rozwoju regionalnego*, *Wydawnictwo Naukowe Uniwersytetu Szczecińskiego*, Szczecin.
- Nermend K. (2008) Zastosowanie rzutu wektora do budowy miernika syntetycznego, *Przegląd Statystyczny*, No. 3.
- Nermend K. (2009) *Vector Calculus in Regional Development Analysis*, Series: Contributions to Economics, Springer.
- Rudolf W. (2010) Koncepcja governance i jej zastosowanie – od instytucji międzynarodowych do niższych szczebli władzy, *Acta Universitatis Lodziensis, Folia Oeconomica*, No. 245, 73-83.
- UNDP (2004) *Governance Principles, Institutional Capacity and Quality* [in:] *Towards Human Resilience: Sustaining MDG Progress in an Age of Economic Uncertainty*, http://www.undp.org/content/dam/undp/library/Poverty%20Reduction/Inclusive%20development/Towards%20Human%20Resilience/Towards_SustainingMDGProgress_Ch8.pdf, (last access 12.01.2014).
- Wojciechowski E., Podgórnica-Krzykacz A. (2008) Pomiar jakości rządzenia, *Gospodarka Narodowa*, 3, 19-38.