

Comparison of the Business Environment Quality in Countries V4 and Serbia*



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ABSTRACT

This paper presents the latest results for indices measuring the business environment quality in countries V4 (the Czech Republic, Hungary, Poland and Slovakia) and Serbia. We use for mutual comparison four indices - Corruption Perception Index (CPI), Aggregate Governance Indicators (AGI), Capture Index, Opacity index. All indicators are based on subjective data obtained through surveys. According to these results, the quality of business environment in Hungary is perceived as the best, followed by Czech Republic and Poland with almost the same results. We have found little lagging in Slovakia, but the larger lagging in Serbia.

KEW WORDS: *business environment quality, corruption perception index (CPI), aggregate governance indicators (AGI), capture index, opacity index*

Introduction

The quality of business environment is a crucial element for the enterprise development. A favourable business environment is an essential prerequisite for long-term competitiveness and growth of any market economy. It's an environment in which the State encourages and protects

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competition, creates clear and stable rules, effectively ensures compliance for all market participants, minimizing administrative burdens and requirements to entrepreneurs. Small and medium-sized enterprises play a significant and essential role in all countries with a market economy. They also have extraordinary significance in the development of the economy in countries V4 and Serbia, for creating new jobs and in regional development. However, small and medium-sized enterprises are to an increased extent sensitive to the quality of the business environment. ([2], [4], [8])

In last few years the numbers of organizations that are carrying out the measurement of quality of the business environment construct various indexes to measure quality of the business environment. In this paper we would like to make a comparison of the four indices – Corruption Perception Index (CPI), Aggregate Governance Indicators (AGI), Capture Index, Opacity index.

Corruption Perception Index (CPI)

The Corruption Perception Index (CPI) measures the perceived level of public-sector corruption in 180 countries and territories around the world. Transparency International (TI) has chosen a clear and focused definition of the term: Corruption is operationally defined as the abuse of entrusted power for private gain. TI further differentiates between "according to rule" corruption and "against the rule" corruption. Facilitation payments, where a bribe is paid to receive preferential treatment for something that the bribe receiver is required to do by law, constitute the former. The latter, on the other hand, is a bribe paid to obtain services the bribe receiver is prohibited from providing.

The CPI is a composite index, derived from several existing indicators and surveys. The CPI is a "survey of surveys", based on 13 different expert and business surveys. The indicator included in the CPI must fulfil three criteria: must allow a comparison for the different countries, must measure the overall level of corruption, the data must not be older than three years. The composition of CPI varies every year, therefore is not appropriate to compare indexes over the time. Also we cannot compare indices between countries because each survey uses different methodologies and data of various characters. For further the exact definition of corruption varies in different countries. Despite these

deficiencies, we will move to the presentation of results of CPI in the year 2009 for countries V4 – Slovakia, Czech Republic, Poland and Hungary and Serbia. The Corruption Perceptions Index (CPI) table shows a country's ranking and score, the number of surveys used to determine the score, and the confidence range of the scoring. It ranks countries on a zero to ten scale, with a score of zero representing very high corruption. The higher value of the index is the better.

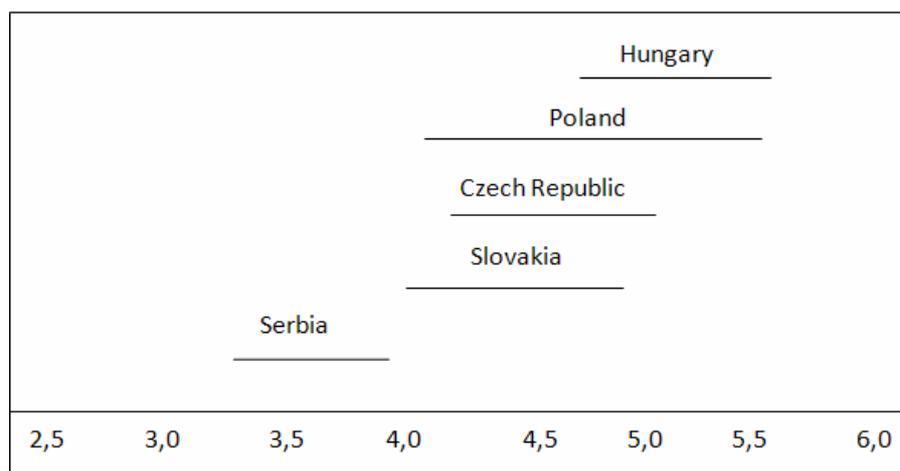
Table 1: The CPI results for the year 2009 for the V4 countries and Serbia

Rank	Country	CPI 2009	Surveys used	Confidence Range
46	Hungary	5,1	8	4,6 - 5,7
49	Poland	5	8	4,5 - 5,5
52	Czech Republic	4,9	8	4,3 - 5,6
56	Slovakia	4,5	8	4,1 - 4,9
83	Serbia	3,5	6	3,3 - 3,9

Source: Transparency International, www.transparency.org

The rank shows how one country compares to others included in the index. The CPI score indicates the perceived level of public-sector corruption in a country/territory. The surveys used column indicates how many surveys were relied upon to determine the score for that country. The confidence range indicates the reliability of the CPI scores and tells us that allowing for a margin of error, we can be 90% confident that the true score for this country lies within this range.

From the Table 1 is evident the rank of the Visegrad countries and Serbia. According to this table, Hungary gives the impression of the lead, but we look to the last column “Confidence Range”, we see that the confidence interval for the Hungary is overlaid by the confidence interval for the Poland. The 90% confidence interval of Poland overlay the confidence interval for the Hungary, Poland and Slovakia. The 90% confidence interval for Serbia lagging behind the others.

Figure 1: 90% confidence intervals for CPI

Source: Author's elaboration from the data in the table 1

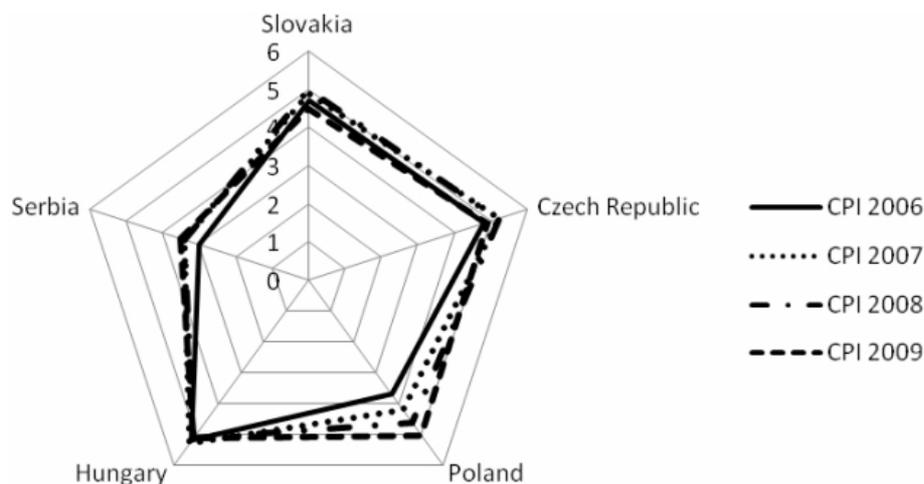
Table 2: CPI results in 1998-2009

Country	CPI1998	CPI1999	CPI2000	CPI2001	CPI2002	CPI2003	CPI2004	CPI2005	CPI2006	CPI2007	CPI2008	CPI2009
Slovakia	3,9	3,7	3,5	3,7	3,7	3,7	4	4,3	4,7	4,9	5	4,5
Czech Republic	4,8	4,6	4,3	3,9	3,7	3,9	4,2	4,3	4,8	5,2	5,2	4,9
Poland	4,6	4,2	4,1	4,1	4	3,6	3,5	3,4	3,7	4,2	4,6	5
Hungary	5	5,2	5,2	5,3	4,9	4,8	4,8	5	5,2	5,3	5,1	5,1
Serbia (before 2006 Serbia and Montenegro)	-	-	-	-	-	-	-	-	3	3,4	3,4	3,5

Source: Transparency International, www.transparency.org

In the Table 2, there are the results for the CPI index from the year 1998 to 2009. Only for Serbia we have CPI for 2006-2009, before it was Serbia and Montenegro. Slovakia achieved the worst score from the year 2006, it seems that the situation in Slovakia is worse, also score in the Czech Republic decrease. The scores have increasing tendency in Poland and Serbia. Hungary reached the same score, so the level of corruption doesn't change to better from the year 2007.

Figure 2: Comparison of the V4 countries and Serbia in 2006-2009



Despite its lack of CPI is very effective at promoting a transparent and open environment. Through this index, *Transparency International* encourages debate on corruption in the media and in governmental and scientific agencies.

The Worldwide Governance Indicators (WGI) Project

In 1999 the World Bank Institute presented the Worldwide Governance (WGI) project, which reports aggregate and individual governance indicators for 212 countries and territories over the period 1996–2008, for six dimensions of governance: Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption. The indicators are based on several hundred individual variables measuring perceptions of governance, drawn from 35 separate data sources constructed by 33 different organizations from around the world.

We define governance broadly as the traditions and institutions by which authority in a country is exercised. This includes the process by which governments are selected, monitored and replaced; the capacity of the government to effectively formulate and implement sound policies; and

the respect of citizens and the state for the institutions that govern economic and social interactions among them. The six dimensions of governance corresponding to this definition that we measure are:

1. *Voice and Accountability (VA)* – capturing perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.

2. *Political Stability and Absence of Violence (PV)* – capturing perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism.

3. *Government Effectiveness (GE)* – capturing perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.

4. *Regulatory Quality (RQ)* – capturing perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

5. *Rule of Law (RL)* – capturing perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.

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

The aggregate governance indicators (AGI) combine the views of a large number of enterprises, citizen and expert survey respondents in industrial and developing countries. The individual data sources underlying the aggregate indicators are drawn from a diverse variety of survey institutes, think tanks, non-governmental organizations, and international organizations. These aggregate indicators are weighted averages of the underlying data, with weights reflecting the precision of the individual data sources. To construct aggregate indicators from individual the statistical methodology known as an unobserved components model is used. Crucially this methodology also generates margins of error for the estimates of governance for each country, which need to be taken into

account when making comparisons of governance across countries and over time.([1] , Kaufmann et al., 2009)

In the Tables 3-8 we summaries the results of AGI for the Visegrad countries and Serbia, for the years 2007 and 2008. The indices are scaled from -2,5 (the worst) to +2,5 (the best). From the results could be concluded, that in the Voice and Accountability, Political Stability, Governance Effectiveness and the Rule of Law the Czech Republic achieved the best results and for the Regulatory quality and the Control of Corruption, Hungary achieved the best results. Very similar results in all dimensions obtained Poland and Slovakia. Also by AGI (like by CPI) Serbia is lagging behind the others countries. These results cannot be regarded as a clear comparison between countries as evidenced by the large standard deviation. The recommendation of the authors of the AGI (see [1]Kaufmann et al., 2009) is to use confidence intervals instead point estimates. To obtain 90% confidence interval, under the assumption of normal distribution we use formula: [point estimate] \pm [1.64.standard deviation].

Table 3: Voice and Accountability, Comparison across selected countries

Country	Sources	Year	Percentile Rank (0-100)	Governance Score (-2.5 to +2.5)	Standard Error
Czech Republic	13	2008	82.2	+1.02	0.13
	12	2007	77.4	+1.00	0.13
Hungary	13	2008	78.4	+1.00	0.13
	11	2007	82.7	+1.06	0.14
Poland	14	2008	72.6	+0.86	0.13
	12	2007	72.1	+0.80	0.13
Serbia	13	2008	54.8	+0.19	0.13
	11	2007	55.3	+0.25	0.13
Slovakia	11	2008	75.0	+0.89	0.14
	10	2007	75.5	+0.93	0.14

Table 4: Political Stability, Comparison across selected countries

Country	Sources	Year	Percentile Rank (0-100)	Governance Score (-2.5 to +2.5)	Standard Error
Czech Republic	11	2008	78.9	+0.93	0.20
	11	2007	78.4	+0.84	0.20
Hungary	11	2008	67.9	+0.59	0.20
	11	2007	68.3	+0.63	0.20
Poland	11	2008	73.7	+0.79	0.20
	11	2007	65.9	+0.56	0.20
Serbia	8	2008	28,2	-0.50	0.23
	8	2007	22,6	-0.71	0.22
Slovakia	10	2008	78.5	+0.92	0.21
	10	2007	79.8	+0.86	0.21

Table 5: Government Effectiveness, Comparison across selected countries

Country	Sources	Year	Percentile Rank (0-100)	Governance Score (-2.5 to +2.5)	Standard Error
Czech Republic	13	2008	82.5	+1.07	0.17
	14	2007	80.6	+0.98	0.17
Hungary	13	2008	73.0	+0.66	0.17
	14	2007	75.4	+0.73	0.17
Poland	13	2008	68.2	+0.48	0.17
	14	2007	67.8	+0.38	0.17
Serbia	10	2008	47.9	-0.28	0.20
	11	2007	45.5	-0.33	0.19
Slovakia	12	2008	77.3	+0.76	0.18
	13	2007	73.0	+0.64	0.17

Table 6: Regulatory Quality, Comparison across selected countries

Country	Sources	Year	Percentile Rank (0-100)	Governance Score (-2.5 to +2.5)	Standard Error
Czech Republic	13	2008	82.1	+1.09	0.16
	13	2007	80.1	+0.97	0.17
Hungary	13	2008	87.9	+1.26	0.16
	13	2007	86.4	+1.15	0.17
Poland	13	2008	73.9	+0.77	0.16
	13	2007	72.3	+0.72	0.17
Serbia	11	2008	47.3	-0.21	0.17
	10	2007	40.8	-0.33	0.18
Slovakia	12	2008	84.5	+1.14	0.16
	12	2007	81.1	+0.98	0.17

Table 7: Rule of Law, Comparison across selected countries

Country	Sources	Year	Percentile Rank (0-100)	Governance Score (-2.5 to +2.5)	Standard Error
Czech Republic	17	2008	77.0	+0.85	0.12
	17	2007	73.3	+0.76	0.13
Hungary	18	2008	76.1	+0.82	0.12
	17	2007	73.8	+0.77	0.13
Poland	18	2008	65.1	+0.49	0.12
	17	2007	59.0	+0.31	0.13
Serbia	15	2008	41.1	-0.46	0.14
	14	2007	39.5	-0.53	0.15
Slovakia	16	2008	67.0	+0.52	0.13
	16	2007	60.5	+0.35	0.13

Table 8: Control of Corruption, Comparison across selected countries

Country	Sources	Year	Percentile Rank (0-100)	Governance Score (-2.5 to +2.5)	Standard Error
Czech Republic	15	2008	66.7	+0.37	0.12
	15	2007	65.2	+0.28	0.11
Hungary	16	2008	72.5	+0.55	0.12
	14	2007	72.5	+0.49	0.11
Poland	16	2008	67.6	+0.38	0.12
	15	2007	61.8	+0.18	0.11
Serbia	13	2008	53.1	-0.16	0.14
	13	2007	47.8	-0.39	0.13
Slovakia	13	2008	68.6	+0.43	0.13
	13	2007	65.7	+0.31	0.12

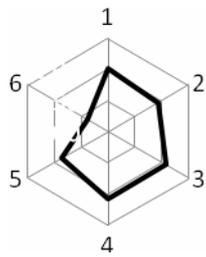
On the basis of point estimates, we could compare the evolution of AGI over time. According to AGI, Czech Republic and Poland achieved the increase of the index in all dimensions. There was a statistically significant decrease of Hungary, Serbia and Slovakia in Voice and Accountability and Political Stability, also there was a decrease of Hungary and Serbia in Governance Effectiveness. Slovakia raise up the scores in all dimensions expect Voice and Accountability and Political Stability. All of the compared countries has increasing tendency in Regulatory Quality, Rule of Law and Control of Corruption.

Summary results for the year 2008 are in the radar charts in Figure 3. Thus further from the centre of the better. So we can summarize the best results achieved Czech Republic and Hungary.

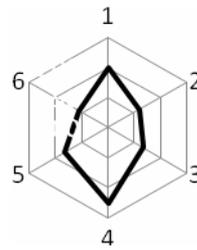
Whereas AGI (like the CPI) is the composite index is accused by the diversity of resources. The authors of AGI also explicitly report the margins of error accompanying each country estimate. These reflect the inherent difficulties in measuring governance using any kind of data. They find that even after taking margins of error into account, the WGI permit meaningful cross-country comparisons as well as monitoring progress over time. Although AGI is suitable for comparing countries with similar characteristics as the Visegrad countries and Serbia. ([1], Kaufmann et al., 2009)

Figure 3: Graphical summary of the results of AGI for the year 2008, where 1- Voice and Accountability, 2- Political Stability and Absence of Violence, 3- Government Effectiveness, 4- Regulatory Quality, 5- Rule of Law, 6- Control of Corruption.

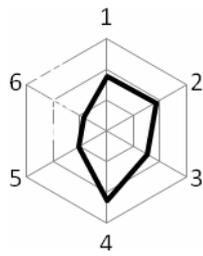
Czech Republic



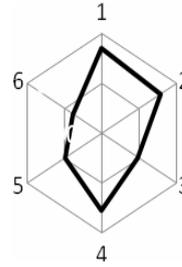
Hungary



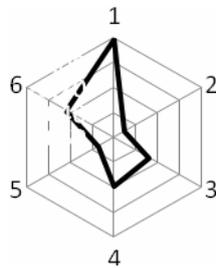
Slovakia



Poland



Serbia



Capture Index

The Capture Index is the result of the cooperation between World Bank and European Bank for Reconstruction and Development. The analysis of capture, corruption and influence is based on data from the business environment and enterprise performance survey which took place in 1999 across 22 transition economies. The survey was conducted on the basis of face-to-face interviews with high level firm managers or owners. The survey included questions to measure three types of interaction between the firm and state:

- Administrative corruption – measure of administrative corruption is based on a survey questions about the amount of bribes paid by enterprises as a share of annual revenues.
- State capture – is composed as a arithmetic average of six components, which represent six types of activities which have direct impact on business of researched firms [7]:
 - The sale of Parliamentary votes on laws to private interests,
 - The sale of Presidential decrees to private interests,
 - Central Bank mishandling of funds,
 - The sale of court decisions in Criminal cases,
 - The sale of court decisions in Commercial cases,
 - Illicit contributions paid by private interests to political parties and election campaigns.
- Influence – the measure of influence is based on the firm's own assessment of their capacity to affect the content of laws, rules, regulations or decrees emanating from various state institutions that would have a substantial impact on their business. [7]

The results from survey in V4 countries (Serbia wasn't involved into the survey) can be seen in following table.

Table 9: Components of Capture index in V4 countries

Country	Administrative Corruption	State capture	Influence
Czech Republic	2,5	11	Low
Hungary	1,7	7	Low
Poland	1,6	12	Low
Slovak Republic	2,5	24	High

Source: prepared by authors under [7]

The column Administrative Corruption presents unweighted country averages of the cumulative bribes paid by firms in administrative corruption. The result suggest difference in level of administrative corruption across V4 countries ranging from 1,6 per cent of annual revenues in Poland to 2,5 per cent in Czech and Slovak Republic.

The next column represents the component „State capture“. As we can see, the low capture group includes: Czech Republic, Hungary and Poland. According the survey Slovak Republic belongs between the high capture economies. In Slovak Republic 24 per cent of surveyed firms reported a significant impact of state on their business.

The last column Influence represents the share of influential firms as a percentage of the sample in each country. As we can see, influential firms make up a small minority of firms in V4 countries, though there is still considerable variation across countries, from 3 per cent in case of Hungary and Poland to 8 in case of Czech Republic.

As we can see, the results aren't very favorable in all V4 countries, but we assume better results if the same survey takes place today.

Opacity Index

According the material published by Milken Institute in cooperation with PricewaterhouseCooper (PwC) the opacity is defined as “lack of clear, accurate, formal, easily discernible, and widely accepted business practices. “

PwC launches first global index that measures the impact of business, economic, legal and ethical opacity on the cost of capital in 35 countries around the world. This index focuses on business and economic risks. Compared to other analyses that examine country risks by

summarizing the opinion of academics, analysts, former governmental officials, and media, the Opacity index is based fully on empirical observations.

The Opacity index is a measure of a five components, which can be together spell as CLEAR. There are: Corruption, Legal system inadequacies, economic Enforcement policies, Accounting standards and corporate governance, and Regulation. A high score on the Opacity index indicates higher level of opacity in each of these areas.

Information from the index can be useful for companies and businesses as they make decisions, compute future costs, and forecast risk. Knowing the risks in the country can be helpful for firms making direct and portfolio investment decisions. From a governmental perspective the index provides useful information too. For government leaders make it easier to tailor policies that will make their country a more appealing place to do business. This way the country can better understand how they can become more competitive by becoming more transparent and by making their institutions more effective.

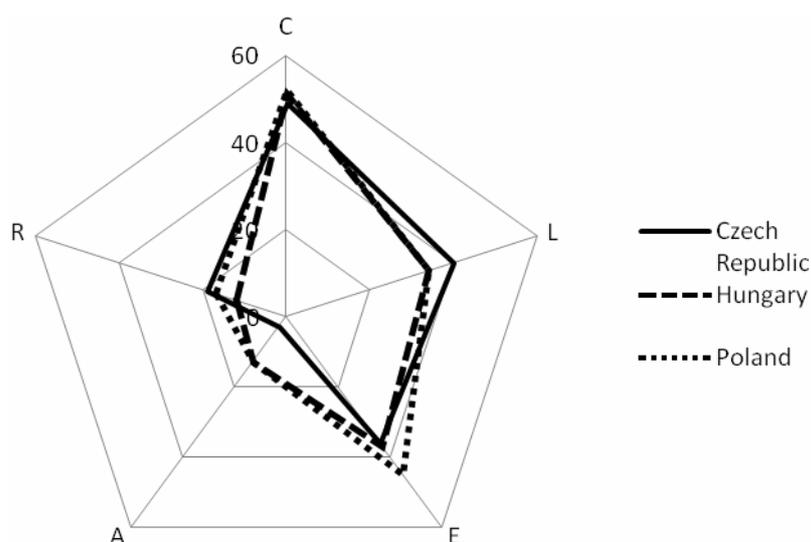
The latest data about the obtained level of index can be seen in following table:

Table10: Opacity index in selected countries

Country	C		L		E		A		R		Opacity score		Country rank	
	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009
Czech Republic	49	49	40	40	47	36	4	3	19	19	32	29	25	22
Hungary	51	51	34	34	38	37	13	13	13	12	30	30	22	25
Poland	54	52	38	34	53	45	13	13	20	17	35	32	29	27

Source: [5], [6]

Figure 4: Components of Opacity Index 2009 in selected countries



The Figure 4 presents components of Opacity Index in selected countries in 2009. As we can see in component Corruption the level of opacity was approximately the same in all evaluated countries. In component Legal system inadequacies the level of opacity was the same in Poland and Hungary, in Czech Republic the level of opacity was higher. Component Economic enforcement policies had the best result in Czech Republic, then in Hungary and the last was Poland. In component Accounting standards and corporate governance the level of opacity was the same in Poland and Hungary, in Czech Republic the level of opacity was lower. The level of opacity in component Regulation was the lowest in Hungary, then in Poland and the highest was in Czech Republic. In overall point of view we can see that the level of opacity was in 2009 the lowest in Czech Republic, higher level of opacity was in Hungary and the worst result was in Poland. In case of Czech Republic we can see the improvement, the positive movement from 25th to 22nd place. Positive movement is also in case of Poland. The negative movement can be seen in case of Hungary, which fallen down from 22nd to 25th place. According the

obtained data we can see, that Slovak Republic and Serbia weren't involved into the research.

Conclusion

In this paper we have reported on the latest results for four indices measuring the business environment quality – Corruption Perception Index (CPI), Aggregate Governance Indicators (AGI), Capture Index, and Opacity Index. We have described what this indicators measure and compare results in the four Visegrad countries (the Czech Republic, Hungary, Poland and Slovakia) and Serbia. All indicators are based on subjective data obtained through surveys. We also try to discuss about some advantages and disadvantages of the respective methodological approaches. Although the indices are known worldwide, by for example CPI and AGI are composite indices; they accused the diversity of resources. Nevertheless, the indices reveal almost the same patterns for all compared countries. The quality of business environment in Hungary is perceived as the best, followed by Czech Republic and Poland with almost the same results. We have found little lagging in Slovakia, but the larger lagging in Serbia. But as we can see from the results there always exist fields, where countries could improve their scores.

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