

## **THE SMART GOVERNANCE INDEX – A NEW ALTERNATIVE TO THE WORLD GOVERNANCE INDEX**

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**Abstract:** *Measuring governance performance, in particular of different countries, is indispensable for increasing its effectiveness, efficiency and quality. There were developed many such indicators, but they are rather unilateral. The WGI, launched in 2008 by the Forum for a new World Governance and covering 179 countries of the world, made up of 5 aggregate indicators, is possibly the first attempt to build such a complex and in the same time practical index. Unfortunately, the WGI wasn't updated since 2011, although it would be very useful both for theoreticians and practitioners. We propose an alternative index – the SGI, calculated for 151 countries in 2010 and 155 countries in 2015, made up of 10 sub-indexes. Both the WGI and SGI aren't perfect, but are good analytical tools for governance actors / players. While the WGI is based on the idea of sustainable development, the SGI suggest smart development focused on knowledge-intensive factors. Considering this paper's limitations, we selected a sample of 6 countries and 7 regions for comparison and exemplified 10 best and 10 worst performers for both indexes. We concluded that top performers are the most developed countries, in particular Scandinavian ones, while the least developed African and Asian states have the poorest ranks. On the other hand, a weak score even of a sub-index may result in losing overall leadership, as in case of the USA or Japan. Moreover, negative phenomena, like wars or crises, can make countries bottom performers, e.g., Afghanistan or Syria.*

**Keywords:** *Administration, effectiveness, efficiency, globalization, governance, human development, knowledge, management, measuring, performance, public sector, quality, Smart Governance Index (SGI), smart development, sustainable development, World Governance Index (WGI).*

### **HOW TO MEASURE GOVERNANCE PERFORMANCE?**

Governance may be considered a synonym for management, but the former refers mostly to the public sector or to the macro level. Administration perhaps is a better synonym for governance. Public administration / management better reveals the essence of governance.

Governance, administration or management have more or less similar functions – planning, organizing, motivating, controlling, etc., which make up the whole process of governing. These functions are fulfilled more or even much more effectively and efficiently if they are measured, i.e. if we use different quantitative indicators for characterizing performance. Numbers are much more precise and objective than vague words.

It is especially useful to compare the governance performance of different countries. There were developed many such indicators (e.g., Human Development Index (HDI) or Doing Business), but they are rather narrow, reflecting only one or several aspects of governance.

## **WORLD GOVERNANCE INDEX (WGI)**

In 2008, the Forum for a new World Governance launched the WGI project. The WGI was envisaged as a tool to detect problems and find solutions to them for governance actors / players. The WGI is a complete, pragmatic, practical index that is also meant as an incentive for action [6, p. 5].

The WGI includes 5 aggregate indicators: peace and security (P&S), rule of law (RoL), human rights and participation (HR&P), sustainable development (SDev), human development (HDev) that measure the most important, critical fields of governance at the global level. These 5 indicators are inspired from the principles of governance specified in the Charter of the United Nations (San Francisco, 1945), the Universal Declaration of Human Rights (Paris, 1948), the Earth Summit Declaration (Rio, 1992), the Millennium Declaration (New York, 2000), the findings of the World Summit on Sustainable Development (Johannesburg, 2002) [6, p. 6].

Each of the 5 indicators is broken down into several sub-indicators (a total of 13). Each sub-indicator is the result of the aggregation of several indexes (41 in all). Finally, nearly 8,500 data items used to calculate the indexes and determine the WGI are taken from databases published annually by the main international organizations and by NGOs specializing in the area of governance [6, p. 6, 13].

The approach used to calculate the WGI is similar to the one used by the UNDP to establish its HDI. For each of the indexes and sub-indicators, all the collected raw data was rescaled into a “closed” scale ranging from 0 (the worst result) to 1 (the best possible score). The WGI is aggregated by means of the mathematical average. [6, p. 13]

However, the WGI was calculated only for 2008 and 2011 and wasn't updated since. It is nevertheless useful to analyze the WGI dynamics for several countries and regions. Given that the author of this paper lives in Moldova, we consider it opportune to compare the WGI of Moldova with the WGI of the selected countries and regions.

In 2011, the WGI of Moldova was 0.619, or with 0.02 (3.13%) less compared to 2008. It is explained by a negative dynamics of RoL (-0.005 or -0.92%), HR&P (-0.065 or -9.97%), and SDev (-0.068 or -10.9%). On the other hand, we observe a weak growth of P&S (+0.02 or +2.34%) and HDev (+0.018 or +3.44%).

In spite of decreasing in the WGI, the rating of Moldova even increased by 1 – from 78 to 77 out of 179 countries (both in 2008 and 2011). In case of the WGI 5 main components, a negative trend transformed in a descending rating, and vice versa: P&S (from 103 to 98 or ↑5); RoL (from 68 to 73 or ↓5); HR&P (from 57 to 76 or ↓19); SDev (from 54 to 97 or ↓43); HDev (from 135 to 114 or ↑21).

Compared to other countries, the WGI of Moldova was higher than that of Russia and Ukraine, but less than the one of Romania, Japan and USA both in 2008 and 2011. In relation to the WGI averages by regions, Moldova performed better than Africa, Arab states, Asia Pacific and CIS, but worse than EU-27, Latin America & the Caribbean (LA&C).

However, the most relevant gauge for comparison is undoubtedly the global average. In 2011, the global WGI had a negative trend vis-à-vis 2008, diminishing from

0.632 to 0.616 (-0.016 or -2.53%), including: P&S (+0.025 or +2.95%); RoL (-0.002 or -0.41%); HR&P (-0.014 or -2.44%); SDev (-0.032 or -5.47%); HDev (-0.05 or -7.99%). Thus, Japan, EU-27, USA, LA&C, Romania and Moldova performed better than the WGI global average, while Ukraine, CIS, Asia Pacific, Russia, Africa and Arab states – worse both in 2008 and 2011 [2; 6].

The global financial crisis of 2007-2008 (but not only) certainly contributed to the WGI decline. Moreover, the WGI 2008 was calculated based on the 2007 or earlier data. The WGI 2008 for the 6 selected countries and 7 regions is represented in Figure 1, while the WGI 2011 for the same sample of countries and regions – in Figure 2. The WGI 2008 and 2011 selected rankings are depicted in Figure 3 and 4 accordingly.

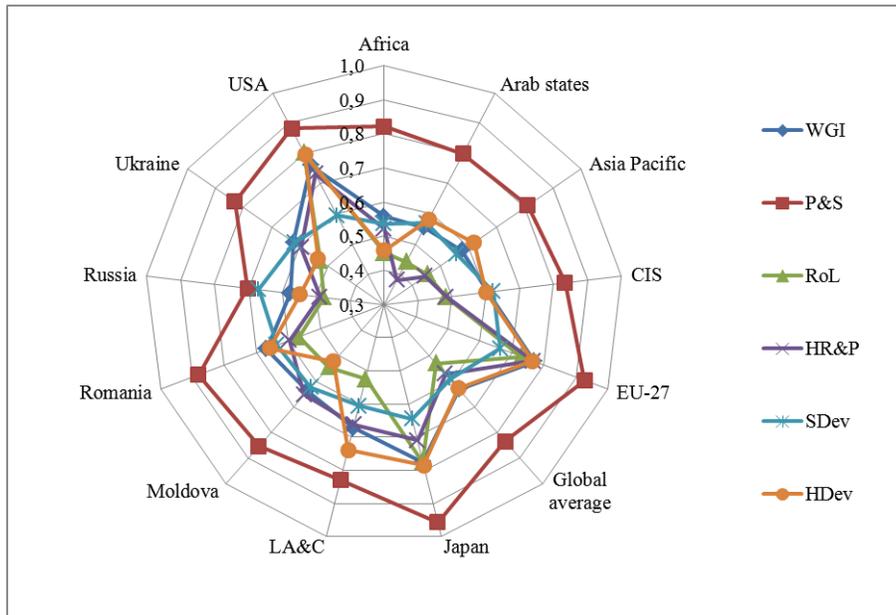


Fig.1. WGI 2008

Source: developed by the author based on [2].

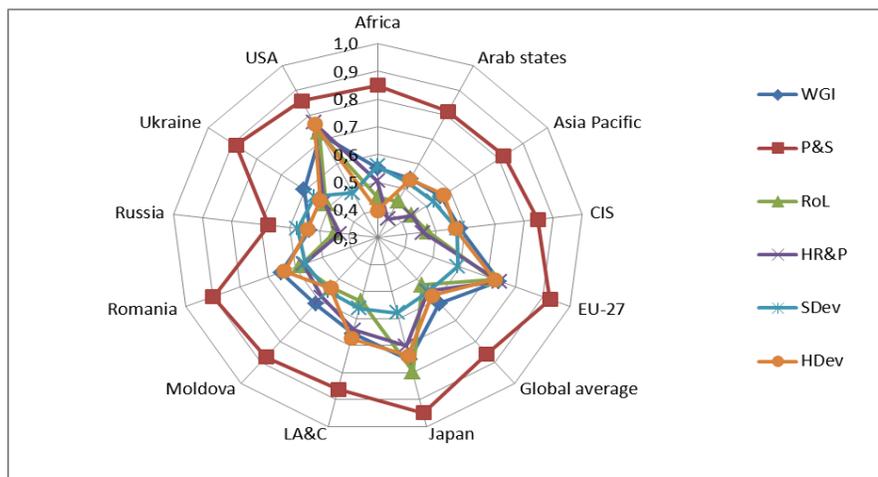
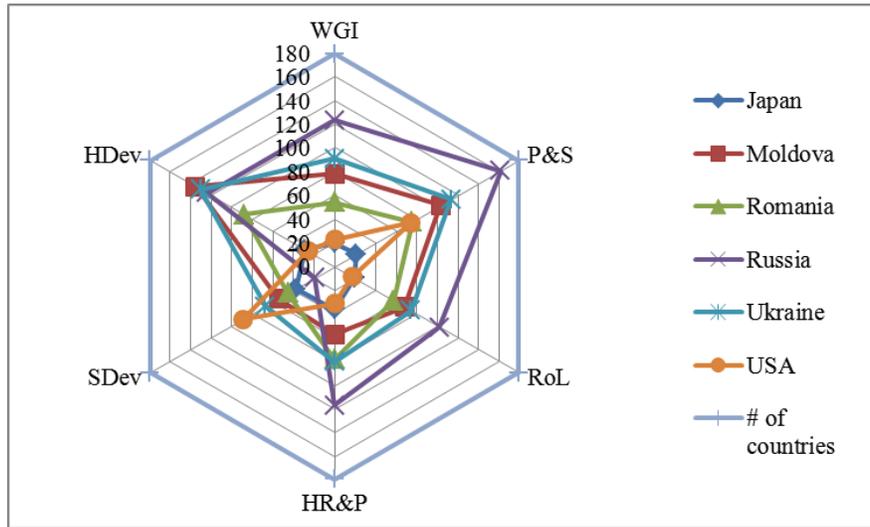


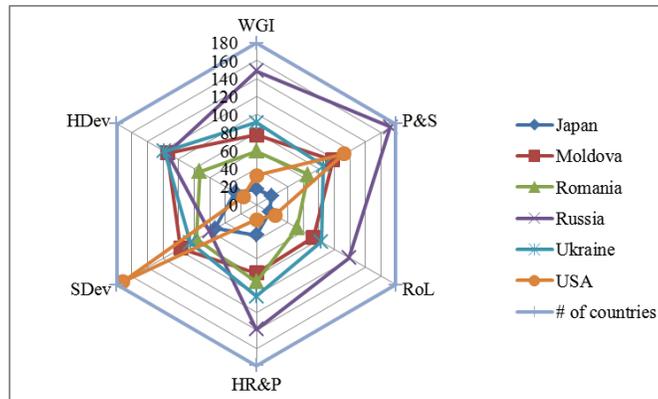
Fig. 2. WGI 2011

Source: developed by the author based on [6].



**Fig.3. WGI 2008 rankings**

Source: developed by the author based on [2].



**Fig.4. WGI 2011 rankings**

Source: developed by the author based on [6].

Top and bottom 10 countries by the WGI are sorted in Table 1. As we observe, 10 top-performing countries are the most developed ones. 8 of them are European, in particular, Scandinavian ones. Bottom 10 countries are the least developed ones from Africa and Asia.

**Table 1. Top and bottom 10 countries by the WGI in 2008 and 2011**

2008			2011		
WGI rank	Top 10 countries	WGI	WGI rank	Top 10 countries	WGI
1	Iceland	0.875	1	Norway	0.844
2	Norway	0.871	2	Sweden	0.843
3	Sweden	0.870	3	Finland	0.832
4	Finland	0.864	4	Iceland	0.830

5	Denmark	0.856	5	Denmark	0.826
6	Luxemburg	0.846	6	New Zealand	0.825
7	New Zealand	0.846	7	Netherlands	0.813
8	Netherlands	0.845	8	Switzerland	0.807
9	Austria	0.839	9	Australia	0.806
10	Australia	0.830	10	Germany	0.801
WGI rank	Bottom 10 countries	WGI	WGI rank	Bottom 10 countries	WGI
179	Somalia	0.290	179	Somalia	0.293
178	Iraq	0.402	178	DRC	0.408
177	Sudan	0.417	177	Sudan	0.408
176	Democratic Republic of the Congo (DRC)	0.419	176	Myanmar	0.413
175	Gaza / West Bank	0.421	175	Afghanistan	0.424
174	North Korea	0.423	174	Iraq	0.425
173	Chad	0.436	173	Zimbabwe	0.432
172	Myanmar (Burma)	0.446	172	North Korea	0.433
171	Zimbabwe	0.461	171	Gaza / West Bank	0.438
170	Central African Republic (CAR)	0.461	170	Chad	0.445

Source: developed by the author based on [2; 6].

It is mentionable that only Germany in 2011 (the 10<sup>th</sup>) and none of the G8 countries in 2008 was represented in top 10, while Russia was ranked only 123<sup>rd</sup> in 2008 and 148<sup>th</sup> in 2011. One further comment would be that Czech Republic (22<sup>nd</sup>) outpaced the USA (32<sup>nd</sup>) in 2011, although it was vice versa in 2008 (32<sup>nd</sup> vs. 23<sup>rd</sup>).

## SMART GOVERNANCE INDEX (SGI)

### Methodology

Smart governance is the future of public services, meaning greater efficiency, community leadership, mobile working and continuous improvement through innovation. It implies using technology to facilitate and support better planning and decision making, improving democratic processes and transforming the ways that public services are delivered. Smart governance includes e-government, the efficiency agenda and mobile working [3].

Unfortunately, the WGI wasn't updated since 2011, although it would be very useful both for theoreticians and practitioners. The author hasn't necessary resources and authority to update the WGI, but he developed an alternative indicator – the SGI. We hope that it will become food for thought and then for action for governance actors worldwide, especially in Moldova and Romania.

Like the WGI, the SGI is a complex index and includes almost all important aspects of governance. The SGI, as every other indicator, isn't perfect, but is rather representative for each country.

The SGI includes 10 sub-indexes: economy (Econ), environment (Env), freedom (Free), globalization (Glob), human and social development (H&SD), peace and security (P&S), politics and statehood (Pol), rule of law (RoL), science and technology (S&T), well-being (W-B). Each of these 10 sub-indexes is broken down into 2-8 component sub-

indexes (a total of 43 in 2010 and 48 in 2015). The SGI was calculated only for 2010 and 2015 given the large amount of work, time and data availability.

The SGI 2010 covers 151 countries and the SGI 2015 – 155 states. The condition of including of countries into the SGI was the presence of data for at least 1 sub-index of each of the 10 main SGI components.

Initially, the SGI could vary from 0 to 1000 points and was calculated as a sum of its 10 main sub-indexes. Each of them could vary from 0 to 100 points and was calculated as the arithmetic average of its own sub-indexes. Since most of the selected sub-indexes provided by different international organizations (such as the UN, WB or IMF), which were used for calculating the SGI 10 aggregate indicators, don't necessarily use a 0-100 scale, they were respectively recalculated.

Inasmuch as the WGI is measured on a 0-1 scale based on the UN tradition, we considered it rational to recalculate the SGI and its 10 aggregate sub-indexes on the same scale, simply dividing by 1000 or 100, where appropriate. In this way, the SGI and WGI, as well as their components, can be directly compared.

### **SGI vs. WGI**

As we observe, the SGI and WGI have 2 common sub-indexes – P&S and RoL. Other 3 WGI main indicators are more aggregate than the rest 8 SGI sub-indexes. For instance, HR&P is partially compatible with Free (only of press), Pol, and H&SD (only gender aspects); SDev covers Econ, Env and partially H&SD (social component); HDev comprises partially H&SD (human component) and W-B. Regrettably, Glob and S&T aren't explicitly presented in the WGI. This fact may be considered as a drawback.

On the other hand, the WGI covers some aspects that are not explicitly found in the SGI: judicial system, quality of life, etc. Also, the WGI covers more countries than the SGI and the same number of countries for both years.

If the WGI leitmotif is *sustainable development* – a process for meeting human development goals while sustaining the ability of natural systems to continue to provide the natural resources and ecosystem services upon which the economy and society depend [4], the SGI promotes the idea of *smart development* understood as sustainable development + knowledge(-based) society, which generates, shares and makes available to all members of the society knowledge that may be used to improve the human condition [1].

Therefore, both the SGI and WGI are imperfect, but are mutually compatible and complementary.

### **SGI results**

In order to be else more comparable, we used the same sample of countries and regions for presenting the SGI results as in case of the WGI.

In 2010, Moldova's SGI was 0.509, while in 2015 – 0.546. So, Moldova improved its result by 0.037 or by 7.24%. It is explained by a positive trend of Econ (+0.098 or +21.69%), Free (+0.011 or +1.95%), Glob (+0.018 or +3.33%), H&SD

(+0.006 or +0.97%), P&S (+0.1 or +14.47%), Pol (+0.098 or +22.25%), RoL (+0.024 or +5.79%), and S&T (+0.043 or +11.95%). However, Env (-0.012 or -2.31%) and W-B (-0.016 or -3.62%) had a negative dynamics.

Given that the number of countries compared varies depending on the year and sub-index, we used the percentile rank for attributing ranks to each country. Thus, we once more use a 0-1 scale.

Moldova improved its SGI percentile rank from 0.437 in 2010 to 0.419 in 2015 (-0.018 or -4.06%). In any case, Moldova remained in the first half of the list.

If we calculate Moldova's WGI percentile rank, than we also observe a positive trend: from 0.436 in 2008 to 0.43 in 2011 (-0.006 or -1.28%). In 2010 and 2011 we state almost the same percentile rank for Moldova. It means that both the SGI and WGI are rather representative.

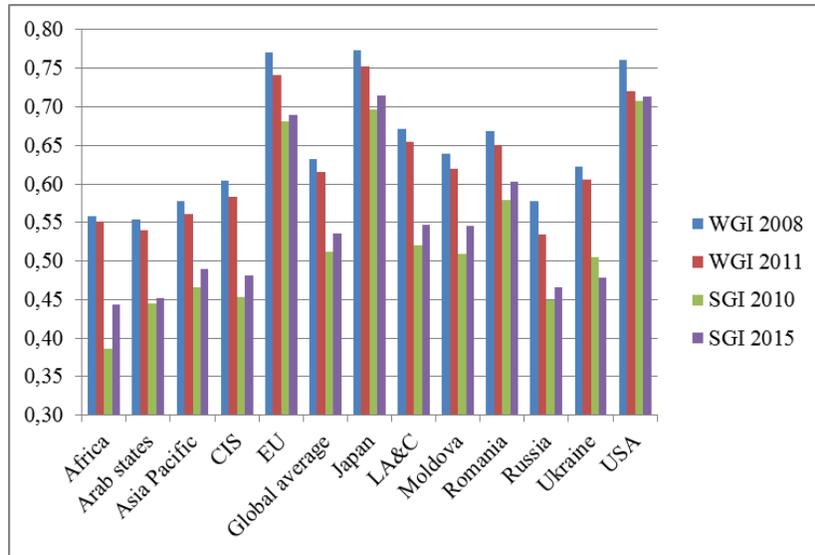
In relation to other countries, the SGI of Moldova was higher than that of Russia and Ukraine, but less than the one of Romania, Japan and USA both in 2010 and 2015, as in case of the WGI.

In 2015, the global SGI was 0.535 (+0.024 or +4.66% as against 2010). 7 of 10 SGI components had a positive dynamics, including: Econ (+0.032 or +6.23%); Glob (+0.019 or +3.72%); H&SD (+0.045 or +7.4%); P&S (+0.071 or +10.86%); Pol (+0.019 or +3.69%); RoL (+0.004 or +0.74%); W-B (+0.037 or +8.69%). Other 3 SGI aggregate indicators declined in value: Env (-0.007 or -1.31%); Free (-0.012 or -2.14%); S&T (-0.004 or -1.29%).

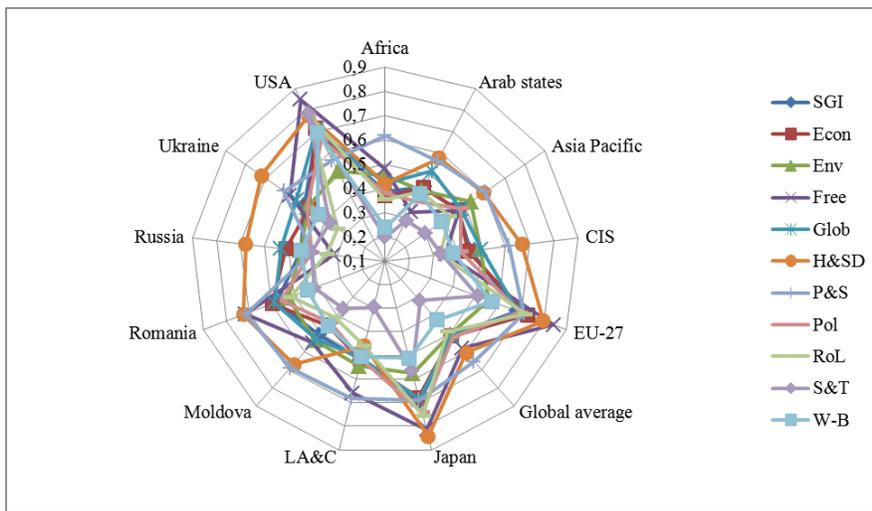
Japan, USA, EU (27 member states in 2010 and 28 in 2015), Romania, and LA&C performed better than the SGI global average, while Ukraine, Asia Pacific, CIS, Russia, Arab states, and Africa – worse both in 2010 and 2015. Moldova was below the global SGI in 2010, but above it in 2015.

One can ascertain that the WGI values are mostly higher than the SGI ones. It is probably of methodological nature. For ex., the USA S&T sub-index is noticeably higher than even that of Japan and the EU due to including the Global Think Tanks Index and Webometrics, where the USA is the undisputed leader. It means that even the SGI and WGI can be directly compared, but it's only formally, because the methodology of their calculation is rather different and any comparisons should be made very carefully. The WGI and SGI for the selected countries and regions are represented in Figure 5.

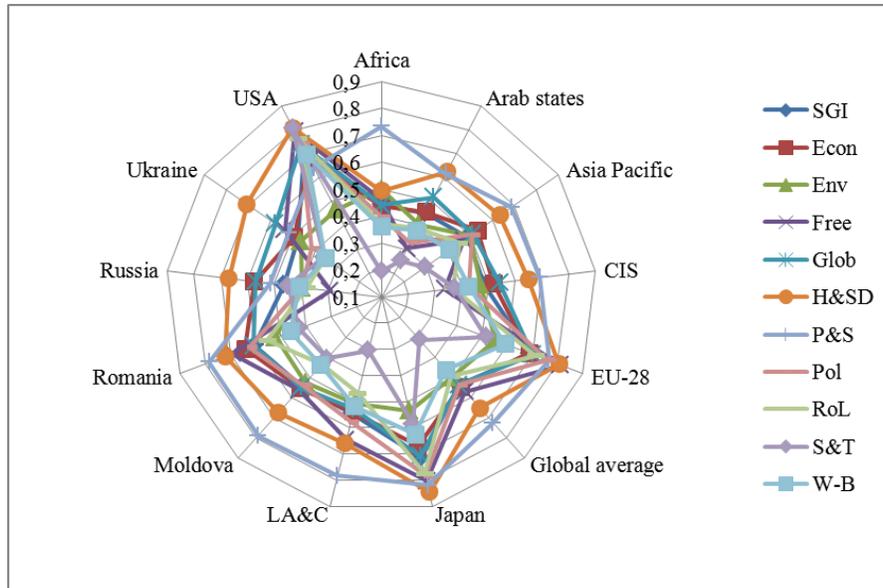
The SGI 2010 for the selected sample of 6 countries and 7 regions is depicted in Figure 6, while the SGI 2015 – in Figure 7. The SGI 2010 and 2015 selected rankings are given in Figure 8 and 9 correspondingly.



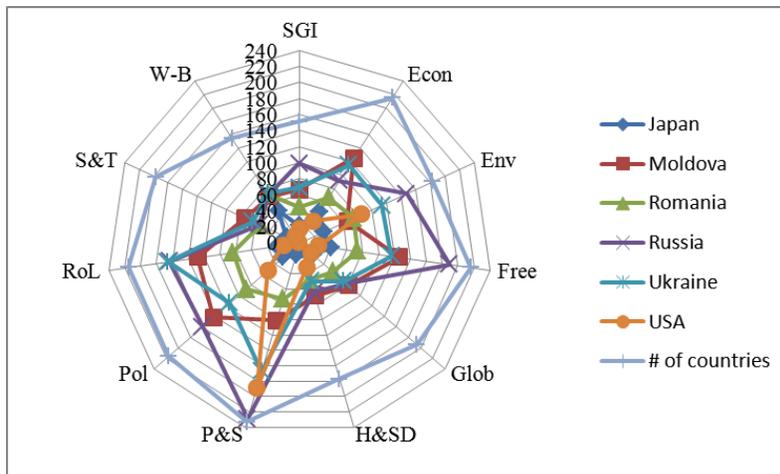
**Fig.5. WGI and SGI for the selected countries and regions**  
 Source: developed by the author based on [2; 6].



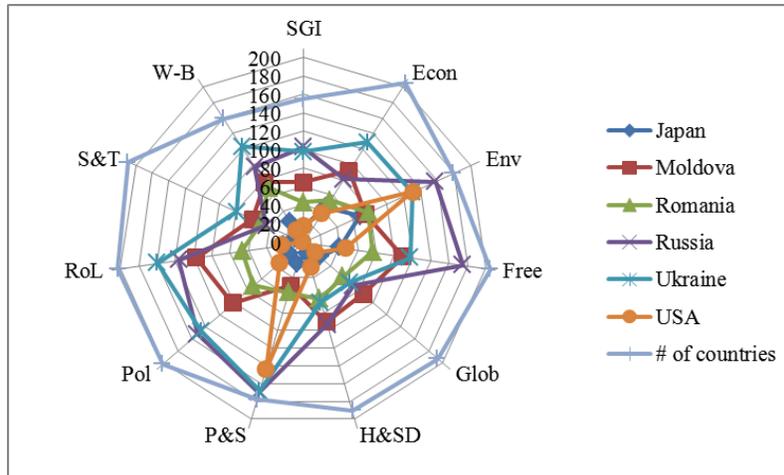
**Fig.6. SGI 2010**  
 Source: developed by the author.



**Fig.7. SGI 2015**  
 Source: developed by the author.



**Fig.8. SGI 2010 rankings**  
 Source: developed by the author.



**Fig.9. SGI 2015 rankings**  
 Source: developed by the author.

Top and bottom 10 countries by the SGI are sorted in Table 2. As in case of the WGI, top 10 performers are the most developed countries, in particular Scandinavian ones, while the least developed African and Asian states have the poorest ranks.

Nonetheless, there are some differences. For instance, Canada, one of the G8 countries, entered top 10 both in 2010 and 2015. In 2015, Singapore, one of the 4 Asian Tigers, was ranked 8<sup>th</sup>. Because of the recent wars in Arab countries, Syria, Yemen, and Libya were ranked in bottom 10 in 2015. Although, Turkmenistan had estimated \$17,072 GDP (PPP) per capita, it was ranked only 146<sup>th</sup> in 2015 mainly due to its isolation from the world and violation of human rights [5]. Another tendency is that several ex-socialist countries, like Estonia, Czech Republic, and Slovenia, i.e. new EU members (since 2004), entered top 30 in 2015, while traditionally considered more developed Italy and Israel were ranked worse (37<sup>th</sup> and 41<sup>st</sup> respectively).

**Table 2 Top and bottom 10 countries by the SGI in 2010 and 2015**

2010			2015		
SGI rank	Top 10 countries	SGI	SGI rank	Top 10 countries	SGI
1	Denmark	0.784	1	Switzerland	0.801
2	Sweden	0.784	2	Norway	0.789
3	Finland	0.781	3	Denmark	0.779
4	Switzerland	0.775	4	Sweden	0.775
5	Norway	0.773	5	Finland	0.774
6	New Zealand	0.764	6	New Zealand	0.774
7	Netherlands	0.761	7	Netherlands	0.766
8	Canada	0.752	8	Singapore	0.756
9	Australia	0.747	9	Canada	0.748
10	Austria	0.741	10	Austria	0.746
SGI rank	Bottom 10 countries	SGI	SGI rank	Bottom 10 countries	SGI
151	Afghanistan	0.246	155	Afghanistan	0.272
150	DRC	0.252	154	Sudan	0.304

149	Sudan	0.279	153	Iraq	0.314
148	Chad	0.283	152	Syria	0.315
147	Myanmar	0.290	151	CAR	0.317
146	Iraq	0.303	150	Yemen	0.318
145	Burundi	0.303	149	DRC	0.322
144	Guinea	0.311	148	Chad	0.333
143	Zimbabwe	0.317	147	Libya	0.358
142	CAR	0.318	146	Turkmenistan	0.368

Source: developed by the author.

## CONCLUSIONS

The success of governance depends on many factors. A poor score even of a sub-index may result in losing overall leadership. E.g., the USA and Japan are traditionally considered the most developed countries, but they aren't in top 10, because of underperformance in such areas as Env or P&S.

Although the WGI is a complex and useful indicator, it wasn't updated since 2011. An alternative to it would be the SGI. Both indexes have their strengths and weaknesses, but we consider them mutually complementary rather than substitutable or competitors. At least, we haven't found more complex and recent indexes yet. The evolution of both the WGI (-2.53%) and SGI (+4.66%) reflect global changes, trends and major events, such as crises and wars. The dynamics of the WGI and SGI components reveal particular governance tendencies worldwide. The comparison of both indexes by regions and countries identifies the best and worst performers. Maybe the most useful is to analyze the change of indexes and sub-indexes over time at the level of a particular country or region.

The Republic of Moldova had a slightly negative (-3.13%) WGI dynamics in the period 2008-2011, including a negative trend of 3 of 5 sub-indexes. In return, Moldova improved its SGI result by 7.24% in 2010-2015, including 8 of 10 aggregate indicators, and even overpassed the global average by 2.04%.

In case of Moldova, it is especially useful to compare its governance performance with that of neighbor countries, i.e., Romania and Ukraine, as well with the EU, CIS and Russia. Moldova performed better than its eastern partners, but worse than western ones. It's especially important in the context of signing the Association Agreement between Moldova and the EU in 2014. Scrupulous implementation of this Agreement and of the European standards as a whole should reduce Moldova's gap in governance performance, even despite Brexit or Grexit. Taking over the Romanian experience, in particular, in fighting corruption (probably the greatest vulnerability of Moldova), can considerably increase the effectiveness, efficiency and quality of Moldovan governance, provided that there is a certain level of political, economic and social stability.

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