Corruption in Relation to Poverty and Inequality Indicators at a Global Level

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Abstract

During 2017, for the third consecutive year, the corruption perceptions index highlights the fact that most countries are making little or no progress at all in eliminating corruption. Corruption is a major problem faced by all countries of the world, a widespread phenomenon, and the low number of cases where corruption has been eradicated leads to the conclusion that this scourge is persistent one, and difficult to eliminate. This paper aims to determine how the Corruption Perception Index (CPI) has evolved at a regional and global level, as well as to analyze the level of corruption in relation to a country's development level, and also the level of poverty and inequality as predictors of corruption.

Introduction

Corruption affects the states' efforts to recover from a bad financial situation and the fight against poverty. Equally, corruption erodes democracy, leads to the degradation of society, and to contrasting distributions of wealth or power. (Johnston, 2007)

Broadly speaking, corruption is a departure from morality, honor, and duty. As an expression of the relationship between authorities and citizens, corruption is the discretionary use of position or function by resorting to illicit or illegal means in order to obtain personal or group interests.

Specialist literature on integrity takes into account aspects that create a favorable context for unethical behaviors, identifying different causes that favor the phenomenon of corruption and explaining the differences that exist between different states from this point of view. Thus, transition countries that face the lack of resources and inappropriate pay of officials involved in fighting corruption are more exposed to corruption than rich countries that can allocate resources to anti-corruption and anti-corruption systems and to attracting and retain competent people or to motivate existing ones to be immune to temptation.

Friedrich said that "we are talking about corruption whenever a power holder, a public servant or any public official is determined by financial or other rewards, such as the promise of promotion, which is not prescribed by law, to take action that favors the reward, thereby causing damage to the public and its interests "(Friedrich, 1999). Nye regards corruption as "activities that deviate from the formal duties of a public function in favor of private, pecuniary or status gains obtained by individuals or groups" (Nye, 1961).

Also, the political regime strongly influences the phenomenon of corruption, with presidential regimes being more affected by corruption than parliamentary ones. In this respect, Fred Riggs notes that all presidential regimes, except for the United States, have suffered major crises (coup, civil wars) between 1900 and 1985. On the other hand, only 13 of the parliamentary regimes experienced similar experiences during this period, most of which took place in the interwar period (Germany, Italy, Spain, etc.) (Riggs, 1997)

The economic outlook for defining corruption provides an explanation for the much higher incidence and the much higher level of violation of public integrity rules in poor countries or in the ones transitioning towards democracy and a market economy, where resources are fewer, the salaries of civil servants are low and law enforcement systems are less effective, the probability of the offender getting punished being less likely. (Radu, L. and Gyula, G., 2010)

"Poverty" is defined as an economic condition generated by both the lack of money and basic living needs such as food, water, utilities and housing. There are different approaches and countless debates on poverty definition, but lack of safe and stable income, able to provide predictability of the continuous meeting of one's basic needs, are the key elements of absolute poverty indicators. Poverty can therefore also be defined as the economic condition of a lack of predictable and stable means to meet the basic needs of living.

The definition and the limits of poverty vary considerably between countries and nations. For example, wealthy countries generally use more generous poverty standards than poor nations. Even among the rich nations, standards are very different. Thus, there is a risk that figures will not ensure comparability between countries, even when the same method is used. (European Commission, 2010)

The Corruption Perceptions Index (CPI) is an instrument launched in 1995 by Transparency International that addresses corruption as a social phenomenon. The CPI is analyzed annually at the level of 180 countries monitored, indicating their position on corruption perceptions. The countries' ranking in the Transparency International ranking is based on a score of 0 to 100, where 100 is the lowest level of corruption.

The Transparency International Report for 2017 reveals corruption as a burden in more than two-thirds of states, despite attempts to combat global corruption. Reducing corruption is a lengthy process, but in recent years many countries have progressed too little or not at all. Over the past six years, the CPI score has improved significantly in several states, including Côte d'Ivoire, Senegal and the United Kingdom, while in other countries it has fallen, including Syria, Yemen and Australia.

In 2017, New Zealand and Denmark are in the top rankings with a score of 89 and 88 respectively. Syria, South Sudan and Somalia are ranked 14, 12 and 9 points respectively. The region with the best results is Western Europe with an average score of 66 points. The regions with the lowest results are Sub-Saharan Africa (average score 32), Eastern Europe and Central Asia (average score 34). (Transparency International, 2017)

As shown in the annex table no. 1, in terms of the Corruption Perceptions Index 2017, more than two-thirds of the 180 countries and territories are below the average from 0 (very corrupt) to 100 (without corruption).

Research Methodology

The paper addresses a quantitative research of information collection (descriptive and experimental studies, surveys) and data analysis (statistics, content analysis).

The survey aims to detect how the Corruption Perceptions Index (CPI) has evolved over the period 2010-2017 globally, analyzing the perceptions of corruption per capita GDP and poverty and inequality as predictors of corruption.

The methodology of scientific research is predominantly qualitative and theoretical, and in order to achieve the proposed objectives, we have used specific methods to analyze the content of reports and studies, statistical records, analyzes and publications of various bodies, organizations and institutions such as Transparency International, World Bank, Eurostat. In this regard, we have collected data from Transparency International Global Corruption Barometer, Global Integrity and the European Commission, the European Anti-Fraud Office and the World Bank, with the aim of analyzing corruption-related variables in the world. Variables have been used regarding the dynamics of the corruption phenomenon, such as corruption perceptions index, GDP per capita and poverty as a predictor of corruption, and the indicator of inequality in countries of the world (GINI).
GINI represents "Multi-dimensional set of measures and actions in the fields of social protection, employment, housing, education, health, information and communication, mobility, security, justice and culture, aimed at combating social exclusion" (INSERT, 2014)

Research analysis

The research starts from the premise that the analysis of the CPI's global evolution is important in the present context from the perspective of understanding and combating this phenomenon.

Transparency International reports highlight the link between corruption and inequality, creating a vicious circle of corruption, unequal distribution of power in society, and unequal distribution of wealth. (Transparency International, 2017)

Considering that wealthy countries can allocate more resources to put in place preventive measures and, in general, to the anti-corruption systems, we have analyzed the corruption perception index against the level of country development, i.e. Gross Domestic Product (GDP) per capita. Chart no. 1 highlights the perceptions of corruption (CPI) per capita GDP, at the level of sample countries in the analysis, on all continents of the globe - according to table no. 1. As we can see, there is a close link between the level of development and the perception of corruption.

Chart no. 1 - Evolution of the Global Perceptions of Corruption Index in relation to GDP per capita
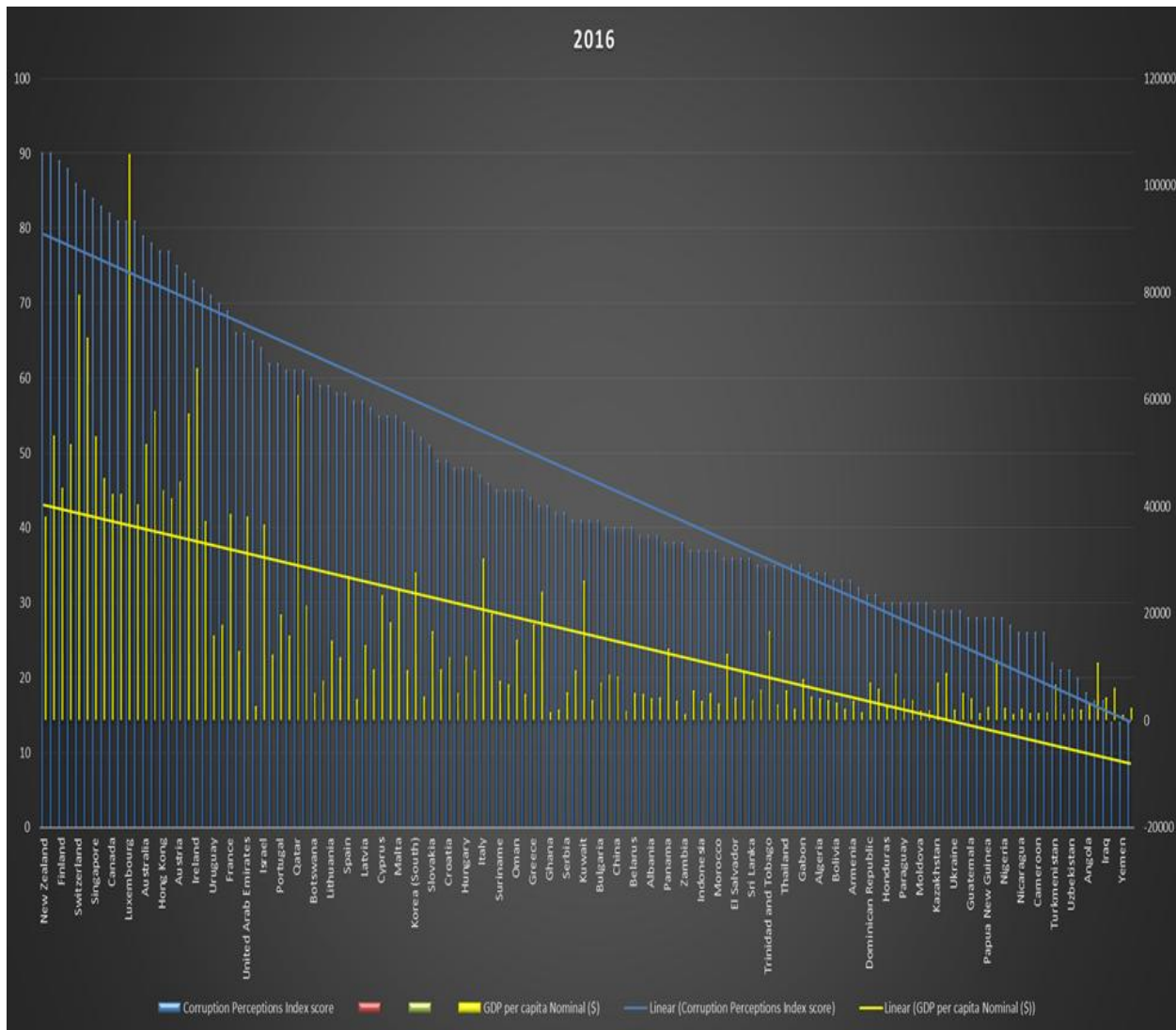

Chart no. 1- made by authors, data source World Bank, Transparency International

Table no. 1: Countries in CPI vs. GDP analysis

Nr. Crt	Country	Corruption Perceptions Index score	GDP per capita Nominal ($)	Nr. Crt	Country	Corruption Perceptions Index score	GDP per capita Nominal ($)	Nr. Crt	Country	Corruption Perceptions Index score	GDP per capita Nominal ($)	Nr. Crt	Country	Corruption Perceptions Index score	GDP per capita Nominal ($)	Nr. Crt	Country	Corruption Perceptions Index score	GDP per capita Nominal ($)	Nr. Crt	Country	Corruption Perceptions Index score	GDP per capita Nominal ($)
1	New Zeala	90	38066	26	Bhutan	65	2635	51	Hungary	48	11903	76	Mongolia	38	3704	101	Honduras	30	2551	126	Venezuela	17	10755
2	Denmark	90	53243	27	Israel	64	36557	52	Romania	48	9439	77	Zambia	38	1231	102	Mexico	30	8699	127	Iraq	17	4334
3	Finland	89	43492	28	Poland	62	12309	53	Italy	47	30294	78	Colombia	37	5623	103	Paraguay	30	3986	128	Libya	14	6169
4	Sweden	88	51604	29	Portugal	62	19759	54	Saudi Arab	46	19922	79	Indonesia	37	3636	104	Azerbaijan	30	3759	129	Yemen	14	1075
5	Switzerlan	86	79578	30	Barbados	61	15955	55	Suriname	45	7347	80	The FYR o	37	5060	105	Moldova	30	1872	130	Sudan	14	2381
6	Norway	85	71497	31	Qatar	61	60733	56	Montenegr	45	6809	81	Morocco	37	3101	106	Djibouti	30	1908				
7	Singapore	84	53053	32	Slovenia	61	21370	57	Oman	45	15080	82	Argentina	36	12425	107	Kazakhsta	29	7138				
8	Netherland	83	45210	33	Botswana	60	5082	58	South Afric	45	5018	83	El Salvado	36	4330	108	Russia	29	8838				
9	Canada	82	42319	34	Dominica	59	7412	59	Greece	44	18078	84	Maldives	36	9247	109	Ukraine	29	2052				
10	Germany	81	42326	35	Lithuania	59	14899	60	Bahrain	43	24119	85	Sri Lanka	36	3870	110	Iran	29	5124				
11	Luxembou	81	105829	36	Costa Rica	58	11749	61	Ghana	43	1551	86	Peru	35	5727	111	Guatemala	28	4102				
12	United Kin	81	40412	37	Spain	58	27012	62	Solomon I	42	2028	87	Trinidad an	35	16717	112	Myanmar	28	1307				
13	Australia	79	51593	38	Georgia	57	3908	63	Serbia	42	5294	88	Philippines	35	2991	113	Papua New	28	2517				
14	Iceland	78	57889	39	Latvia	57	14141	64	Turkey	41	9317	89	Thailand	35	5662	114	Lebanon	28	11271				
15	Hong Kong	77	42963	40	Grenada	56	9600	65	Kuwait	41	26146	90	Timor-Lest	35	2104	115	Nigeria	28	2260				
16	Belgium	77	41491	41	Cyprus	55	23425	66	Tunisia	41	3777	91	Gabon	35	7741	116	Mauritania	27	1244				
17	Austria	75	44561	42	Czech Rep	55	18326	67	Bulgaria	41	7091	92	Guyana	34	4492	117	Nicaragua	26	2115				
18	The United	74	57294	43	Malta	55	24298	68	Brazil	40	8587	93	Algeria	34	4129	118	Banglades	26	1404				
19	Ireland	73	65871	44	Mauritius	54	9322	69	China	40	8261	94	Egypt	34	3806	119	Cameroon	26	1303				
20	Japan	72	37304	45	Korea (So	53	27633	70	India	40	1719	95	Bolivia	33	3276	120	Kenya	26	1522				
21	Uruguay	71	15864	46	Namibia	52	4428	71	Belarus	40	5092	96	Vietnam	33	2164	121	Turkmenis	22	6694				
22	Estonia	70	17896	47	Slovakia	51	16648	72	Jamaica	39	4870	97	Armenia	33	3596	122	Cambodia	21	1228				
23	France	69	38537	48	Malaysia	49	9546	73	Albania	39	4210	98	Pakistan	32	1474	123	Uzbekista	21	2131				
24	Chile	66	12910	49	Croatia	49	11858	74	Bosnia and	39	4289	99	Dominican	31	7083	124	Republic o	20	1981				
25	United Ara	66	38050	50	Jordan	48	5092	75	Panama	38	13515	100	Ecuador	31	5997	125	Angola	18	3360				

Reporting the corruption perception index to the population's poverty level is relevant. Poverty is often defined by economic standards based on income levels and access to basic human needs such as food, water and housing. Poverty is often described as ranging from extreme to moderate. The World Bank is the main source of global information on extreme poverty and sets the international poverty line. The poverty line was revised in 2015 - since then, a person is considered to be in extreme poverty if he lives with less than $ 1.90 per day.

This measure of poverty is based on the monetary value of a person's daily consumption. (Roser and Ortiz-Ospina, 2018) Taking into consideration the World Bank's ranking of countries, according to the percentage of their population, with an income less than $ 1.90 purchasing power parity, and analyzing globally, according to chart no. 2 and 3 it can be seen that the Corruption Perceptions Index (CPI) decreases linearly as the poverty level increases.

Chart no. 2 - Indicators of corruption perception in relation to the population's poverty level
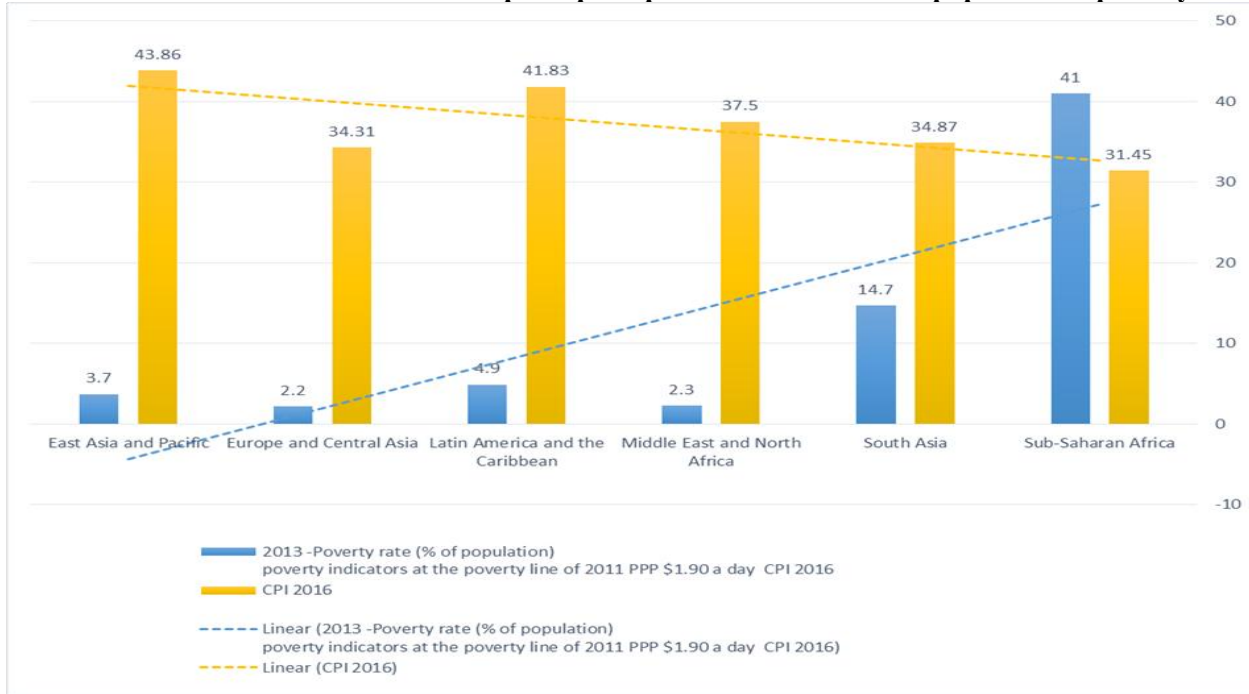
Chart no. 2 made by the authors, data source World Bank, Transparency International

Chart no. 3 - Corruption Perceptions Index in relation with the Extreme Poverty Indicator (Percentage of population living with less than 1.90 USD per day)

Chart no. 3 made by the authors, data source World Bank, Transparency International

The rankings describing the global corruption situation, the analysis made in the present paper (graphs 2 and 3 above), reporting the CPI to gross domestic product per capita (GDP), the population poverty level and the indicator of inequality indicates a higher degree of corruption in poor countries and a lower degree in rich ones.

Conclusions

Studies and polls conducted to quantify corruption perception increase corruption awareness and create the necessary premises to combat this scourge. Also, tools for assessing the effectiveness of the fight against corruption as well as the methods used in this respect are created.
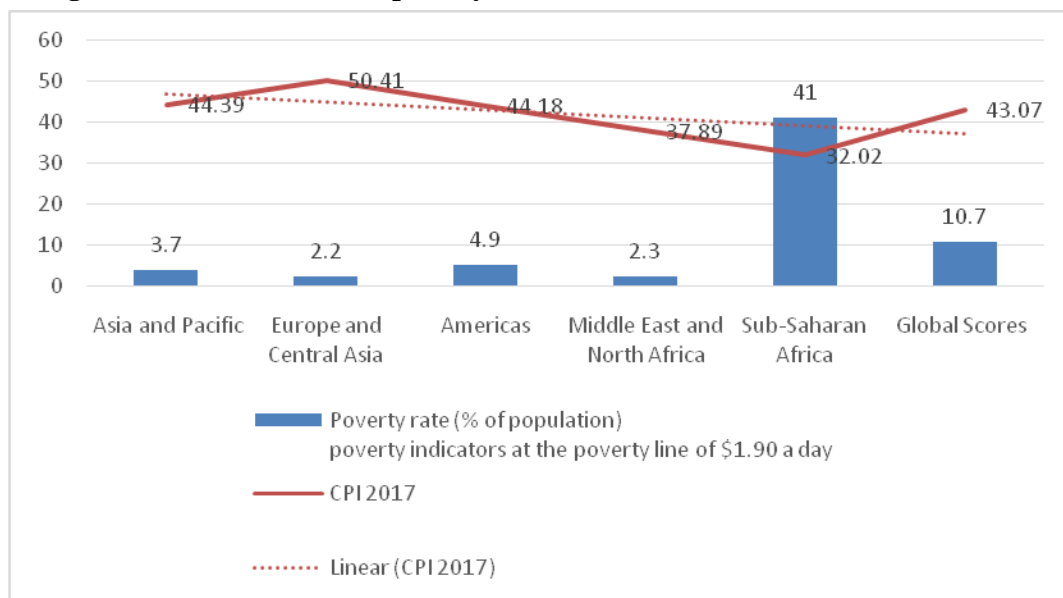
Transparency International reports show that, despite attempts to combat global corruption, most countries are developing very slowly in this respect. Reducing corruption is a lengthy process, but in recent years many countries have progressed very little or not at all, with CPI scores improving significantly in just a few states, including Côte d'Ivoire, Senegal and the United Kingdom, while worsening in other countries, such as Syria, Yemen and Australia.

As shown in the annex table no. 1, New Zealand and Denmark are in the top rankings in 2017 also, with a score of 89 and 88, respectively. Syria, South Sudan and Somalia are ranked 14, 12 and 9 points, respectively. The region with the best results is Western Europe, with an average score of 66 points. The regions with the weakest results are Sub-Saharan Africa (average score 32), Eastern Europe and Central Asia (average score 34). (Transparency International, 2017)

As can be easily seen in chart no. 4, and as follows from the data listed in the annex no. 1, the only countries in the world that consistently achieve a score close to the maximum of 100 points in each of the 7 years under review are New Zealand and Denmark. On the opposite side, the most corrupt countries in the world are North Korea, Somalia and Afghanistan.

Chart no. 4 - Global Perceptions of Corruption Index

Chart no. 4 – made by the authors, Transparency International data source - CPI evolution, Transparency International - CPI 2017

Overall, there are no significant changes in the Corruption Perceptions Index in 2017. Stagnation does not indicate that the fight against corruption has improved, but rather the opposite, not even New Zealand having scored the perfect score of 100 points in recent years. Only a few countries are showing small incremental changes indicating signs of improvement among the world's states with scores over 80 points: New Zealand (89), Denmark (88),Finland, Norway, Switzerland (85 points each), Singapore, Sweden (84 points each), Canada Netherlands Luxembourg and the United Kingdom, each with 82 points and Germany with 81 points. Countries in northern Europe are considered to be the least corrupt, but specialists foresee the possibility that they may experience an increase in acts conflicting with moral norms, thus confirming the theories that corruption affects all states of the world and reinforcing arguments in favor of identifying effective means to control and maintain this phenomenon as low as possible.

As it can be seen, countries with good scores on Corruption Perceptions Index (i.e. countries considered less corrupt) tend to have good indicators related to the Gross Domestic Product as a measure of development level, as well as good indicators when it comes to measuring population poverty and inequality. In the analysis of corruption inequality is important and needs to be addressed, as it slows down the reduction of poverty. Combating and limiting inequality leads to poverty reduction, generating economic growth.

Addressing inequality is an important means of combating absolute poverty, with the World Bank providing data on income inequality for most countries in the world. A common measure of inequality is the GINI index, whereby the World Bank measures annually the extent to which the distribution of income (or, in some cases, consumption expenditure) between individuals or households in an economy deviates from a fairly equal distribution. In the World Bank data, the index varies from 0 to 100: a country with a total revenue distribution, where each person received the same income, would have a GINI of 0; a country with a completely uneven distribution, where a person has earned all the money, and everyone else has earned nothing, would have an index of 100. Thus, a 0 GINI index represents perfect equality, while an index of 100 points to major inequality.

As can be seen from Chart no. 4, the link between corruption and inequality is evident globally; there is a vicious circle between corruption, the unequal distribution of power in society and the unequal distribution of wealth.

By comparing CPI 2017 with the GINI, in order to establish the interdependence relationships between them, one can see a correspondence of the changes recorded by the corruption perception index in relation to the GINI indicator, the two indicators being in an obvious interdependence. We used the graphical method to compare the two sets of values representing the GINI and the CPI 2017 corruption perception index, respectively, to establish the link between them, as shown in the graphic no. 5 down below.

Graphic no. 5- Global Perceptions of Corruption Percentage reported to the inequality coefficient GINI
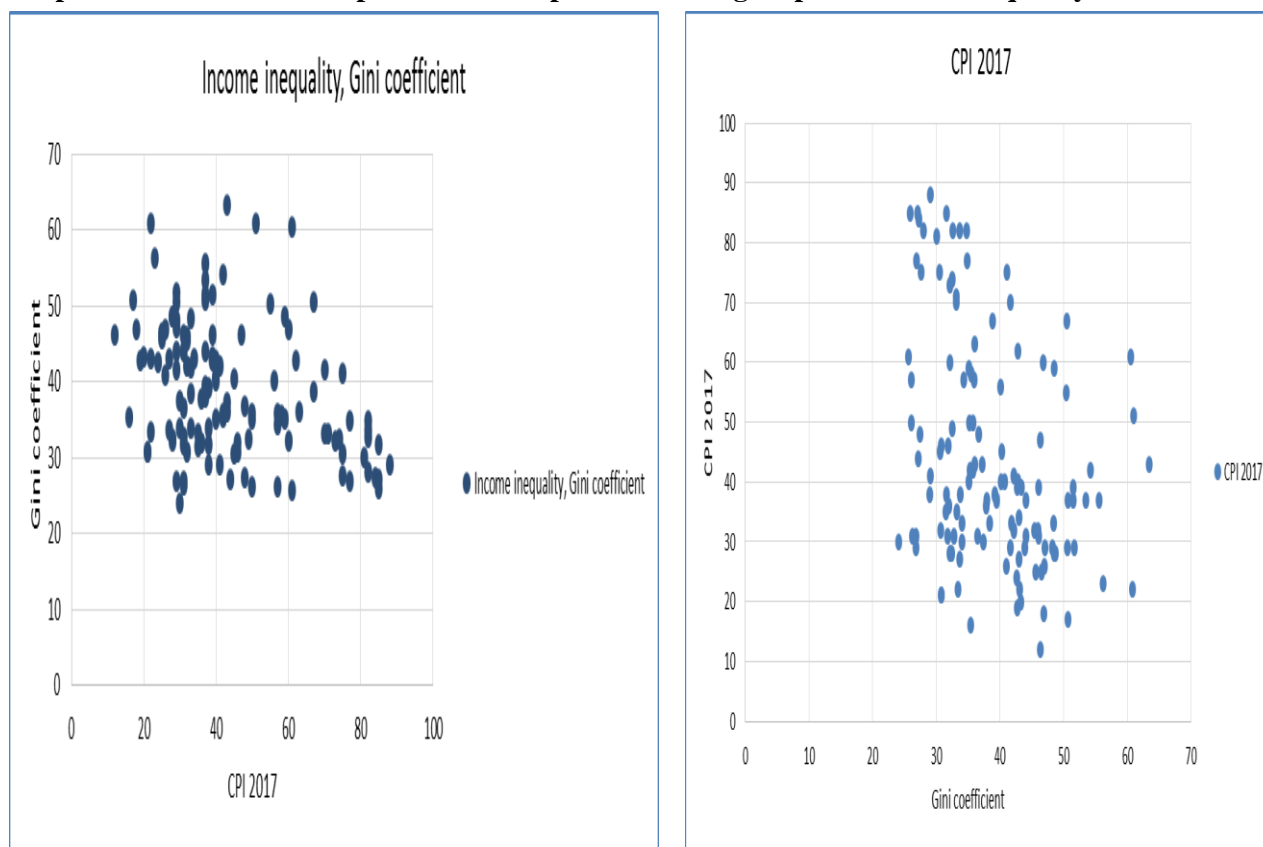
Graphic no. 5 made by authors, data source World Bank, Transparency International

As it results from this paper (Graphs 1 and 2 above), it is worth noting that the corruption perception index has a favorable trend depending on the evolution of the gross domestic product. Also, from Chart 6 below, we can see that there is a close link between the Corruption Perceptions Index and the population's poverty level, expressed as the percentage of the population in a country with a less than 1.90 USD income.

Chart no. 6 - Corruption perception index against the poverty level of the population

	2013 -Poverty rate (% of population) poverty indicators at the poverty line of 2011 PPP $1.90 a day	CPI
■ World	10.7	52.98
■ Sub-Saharan Africa	41	31.45
■ South Asia	14.7	34.87
■ Middle East and North Africa	2.3	37.5
■ Latin America and the Caribbean	4.9	41.83
■ Europe and Central Asia	2.2	34.31
■ East Asia and Pacific	3.7	43.86
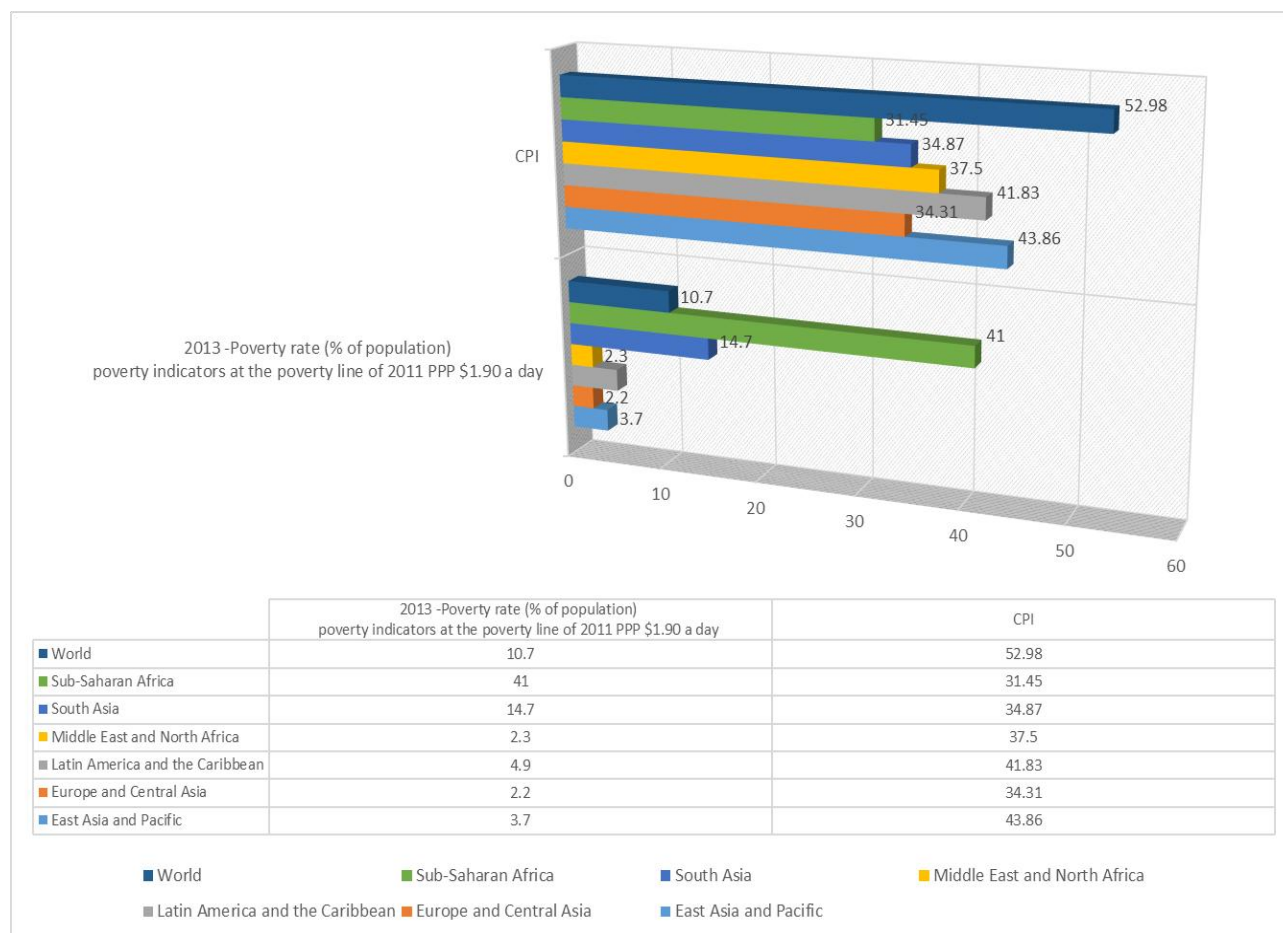
Chart no. 6 conducted by authors, data source World Bank, Transparency International

The results of this analysis reveal a close link between Corruption Perceptions Index, Global Poverty Level and GINI, confirming the hypothesis that they are stronger corruption predictors than the gross domestic product per capita.

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Anexanr. 1

Country	2017 CPI Score	2016 CPI Score	2015 CPI Score	2014 CPI Score	2013 CPI Score	2012 CPI Score	Region	Income inequality, Gini coefficient
Canada	82	82	83	81	81	84	Americas	33.7
United States	75	74	76	74	73	73	Americas	41.1
Uruguay	70	71	74	73	73	72	Americas	41.6
Barbados	68	61	N/A	74	75	76	Americas	
Chile	67	66	70	73	71	72	Americas	50.5
Bahamas	65	66	N/A	71	71	71	Americas	
Costa Rica	59	58	55	54	53	54	Americas	48.5
Saint Vincent and the Grenadines	58	60	N/A	62	62	62	Americas	n/a
Dominica	57	59	N/A	58	58	58	Americas	n/a
Saint Lucia	55	60	N/A	71	71	71	Americas	n/a
Grenada	52	56	N/A	N/A	N/A	N/A	Americas	n/a
Cuba	47	47	47	46	46	48	Americas	n/a
Jamaica	44	39	41	38	38	38	Americas	n/a
Suriname	41	45	36	36	36	37	Americas	n/a
Trinidad and Tobago	41	35	39	38	38	39	Americas	n/a
Argentina	39	36	32	34	34	35	Americas	42.7
Guyana	38	34	29	30	27	28	Americas	n/a
Brazil	37	40	38	43	42	43	Americas	51.5
Colombia	37	37	37	37	36	36	Americas	53.5
Panama	37	38	39	37	35	38	Americas	50.70
Peru	37	35	36	38	38	38	Americas	44.1
Bolivia	33	33	34	35	34	34	Americas	48.4
El Salvador	33	36	39	39	38	38	Americas	41.8
Ecuador	32	31	32	33	35	32	Americas	45.4
Dominican Republic	29	31	33	32	29	32	Americas	47.1
Honduras	29	30	31	29	26	28	Americas	50.6
Mexico	29	30	31	35	34	34	Americas	48.2
Paraguay	29	30	27	24	24	25	Americas	51.7
Guatemala	28	28	28	32	29	33	Americas	48.7
Nicaragua	26	26	27	28	28	29	Americas	47.00
Haiti	22	20	17	19	19	19	Americas	60.8
Venezuela	18	17	17	19	20	19	Americas	46.9
Average Americas	44.19	44.09	40.31	44.94	44.32	45.03		42.64
New Zealand	89	90	91	91	91	90	Asia Pacific	n/a
Singapore	84	84	85	84	86	87	Asia Pacific	n/a
Australia	77	79	79	80	81	85	Asia Pacific	34.9
Hong Kong	77	77	75	74	75	77	Asia Pacific	n/a
Japan	73	72	75	76	74	74	Asia Pacific	32.1
Bhutan	67	65	65	65	63	63	Asia Pacific	38.8
Taiwan	63	61	62	61	61	61	Asia Pacific	n/a
Brunei Darussalam	62	58	N/A	N/A	60	55	Asia Pacific	n/a
Korea, South	54	53	54	55	55	56	Asia Pacific	n/a
Malaysia	47	49	50	52	50	49	Asia Pacific	46.30
Vanuatu	43	N/A	N/A	N/A	N/A	N/A	Asia Pacific	37.2
China	41	40	37	36	40	39	Asia Pacific	42.2
India	40	40	38	38	36	36	Asia Pacific	35.1
Solomon Islands	39	42	N/A	N/A	N/A	N/A	Asia Pacific	46.1
Sri Lanka	38	36	37	38	37	40	Asia Pacific	39.2
Timor-Leste	38	35	28	28	30	33	Asia Pacific	31.6
Indonesia	37	37	36	34	32	32	Asia Pacific	39.5
Thailand	37	35	38	38	35	37	Asia Pacific	37.9
Mongolia	36	38	39	39	38	36	Asia Pacific	32
Vietnam	35	33	31	31	31	31	Asia Pacific	n/a
Philippines	34	35	35	38	36	34	Asia Pacific	43
Maldives	33	36	N/A	N/A	N/A	N/A	Asia Pacific	38.4
Pakistan	32	32	30	29	28	27	Asia Pacific	30.7
Nepal	31	29	27	29	31	27	Asia Pacific	32.8
Myanmar	30	28	22	21	21	15	Asia Pacific	n/a
Lao PDR	29	30	25	25	26	21	Asia Pacific	n/a
Papua New Guinea	29	28	25	25	25	25	Asia Pacific	43.9
Bangladesh	28	26	25	25	27	26	Asia Pacific	32.1
Cambodia	21	21	21	21	20	22	Asia Pacific	30.8
Korea, North	17	12	8	8	8	8	Asia Pacific	n/a

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Afghanistan	15	15	11	12	8	8	Asia Pacific	n/a
Average Asia Pacific	44.39	43.87	42.56	42.70	43.04	42.64		37.23
Denmark	88	90	91	92	91	90	Europe and Central Asia	29.1
Finland	85	89	90	89	89	90	Europe and Central Asia	27.1
Norway	85	85	88	86	86	85	Europe and Central Asia	25.9
Switzerland	85	86	86	86	85	86	Europe and Central Asia	31.6
Sweden	84	88	89	87	89	88	Europe and Central Asia	27.3
Luxembourg	82	81	85	82	80	80	Europe and Central Asia	34.80
Netherlands	82	83	84	83	83	84	Europe and Central Asia	28
United Kingdom	82	81	81	78	76	74	Europe and Central Asia	32.6
Germany	81	81	81	79	78	79	Europe and Central Asia	30.1
Iceland	77	78	79	79	78	82	Europe and Central Asia	26.9
Austria	75	75	76	72	69	69	Europe and Central Asia	30.5
Belgium	75	77	77	76	75	75	Europe and Central Asia	27.60
Ireland	74	73	75	74	72	69	Europe and Central Asia	32.5
Estonia	71	70	70	69	68	64	Europe and Central Asia	33.1
France	70	69	70	69	71	71	Europe and Central Asia	33.1
Portugal	63	62	64	63	62	63	Europe and Central Asia	36
Slovenia	61	61	60	58	57	61	Europe and Central Asia	25.6
Poland	60	62	63	61	60	58	Europe and Central Asia	32.10
Lithuania	59	59	59	58	57	54	Europe and Central Asia	35.1
Latvia	58	57	56	55	53	49	Europe and Central Asia	35.5
Cyprus	57	55	61	63	63	66	Europe and Central Asia	34.3
Czech Republic	57	55	56	51	48	49	Europe and Central Asia	26.1
Spain	57	58	58	60	59	65	Europe and Central Asia	35.9
Georgia	56	57	52	52	49	52	Europe and Central Asia	40.10
Malta	56	55	60	55	56	57	Europe and Central Asia	n/a
Italy	50	47	44	43	43	42	Europe and Central Asia	35.2
Slovakia	50	51	51	50	47	46	Europe and Central Asia	26.1
Croatia	49	49	51	48	48	46	Europe and Central Asia	32.5
Greece	48	44	46	43	40	36	Europe and Central Asia	36.7
Romania	48	48	46	43	43	44	Europe and Central Asia	27.40
Montenegro	46	45	44	42	44	41	Europe and Central Asia	31.9
Hungary	45	48	51	54	54	55	Europe and Central Asia	30.6
Belarus	44	40	32	31	29	31	Europe and Central Asia	27.2
Bulgaria	43	41	41	43	41	41	Europe and Central Asia	36
Serbia	41	42	40	41	42	39	Europe and Central Asia	29.1
Turkey	40	41	42	45	50	49	Europe and Central Asia	40.20
Kosovo	39	36	33	33	33	34	Europe and Central Asia	n/a
Albania	38	39	36	33	31	33	Europe and Central Asia	29
Bosnia and Herzegovina	38	39	38	39	42	42	Europe and Central Asia	33.8
Armenia	35	33	35	37	36	34	Europe and Central Asia	31.5
The FYR of Macedonia	35	37	42	45	44	43	Europe and Central Asia	n/a
Azerbaijan	31	30	29	29	28	27	Europe and Central Asia	31.80
Kazakhstan	31	29	28	29	26	28	Europe and Central Asia	26.3
Moldova	31	30	33	35	35	36	Europe and Central Asia	26.8
Ukraine	30	29	27	26	25	26	Europe and Central Asia	24.1
Kyrgyzstan	29	28	28	27	24	24	Europe and Central Asia	26.8
Russia	29	29	29	27	28	28	Europe and Central Asia	41.6
Uzbekistan	22	21	19	18	17	17	Europe and Central Asia	n/a
Tajikistan	21	25	26	23	22	22	Europe and Central Asia	30.8
Turkmenistan	19	22	18	17	17	17	Europe and Central Asia	n/a
Average Europe and Central Asia	54.24	54.2	54.4	53.56	52.86	52.82		31.25
United Arab Emirates	71	66	70	70	69	68	Middle East and North Africa	n/a
Qatar	63	61	71	69	68	68	Middle East and North Africa	n/a
Israel	62	64	61	60	61	60	Middle East and North Africa	42.8
Saudi Arabia	49	46	52	49	46	44	Middle East and North Africa	n/a
Jordan	48	48	53	49	45	48	Middle East and North Africa	n/a
Oman	44	45	45	45	47	47	Middle East and North Africa	n/a
Tunisia	42	41	38	40	41	41	Middle East and North Africa	35.8
Morocco	40	37	36	39	37	37	Middle East and North Africa	40.7
Kuwait	39	41	49	44	43	44	Middle East and North Africa	n/a
Bahrain	36	43	51	49	48	51	Middle East and North Africa	n/a
Algeria	33	34	36	36	36	34	Middle East and North Africa	n/a
Egypt	32	34	36	37	32	32	Middle East and North Africa	n/a
Iran	30	29	27	27	25	28	Middle East and North Africa	37.4
Lebanon	28	28	28	27	28	30	Middle East and North Africa	n/a
Mauritania	28	27	31	30	30	31	Middle East and North Africa	32.4
Iraq	18	17	16	16	16	18	Middle East and North Africa	n/a

Libya	17	14	16	18	15	21	Middle East and North Africa	n/a
Sudan	16	14	12	11	11	13	Middle East and North Africa	35.40
Yemen	16	14	18	19	18	23	Middle East and North Africa	n/a
Syria	14	13	18	20	17	26	Middle East and North Africa	n/a
Average Middle East and North Africa	36.30	35.80	38.20	37.75	36.65	38.20		37.42
Botswana	61	60	63	63	64	65	Sub Saharan Africa	60.5
Seychelles	60	N/A	N/A	N/A	N/A	N/A	Sub Saharan Africa	46.8
Cape Verde	55	59	55	57	58	60	Sub Saharan Africa	n/a
Rwanda	55	54	54	49	53	53	Sub Saharan Africa	50.4
Namibia	51	52	53	49	48	48	Sub Saharan Africa	61
Mauritius	50	54	53	54	52	57	Sub Saharan Africa	35.8
Sao Tome and Principe	46	46	42	42	42	42	Sub Saharan Africa	30.8
Senegal	45	45	44	43	41	36	Sub Saharan Africa	40.3
South Africa	43	45	44	44	42	43	Sub Saharan Africa	63.40
Burkina Faso	42	42	38	38	38	38	Sub Saharan Africa	35.3
Lesotho	42	39	44	49	49	45	Sub Saharan Africa	54.2
Ghana	40	43	47	48	46	45	Sub Saharan Africa	42.8
Benin	39	36	37	39	36	36	Sub Saharan Africa	43.40
Swaziland	39	N/A	N/A	N/A	N/A	N/A	Sub Saharan Africa	51.5
Zambia	37	38	38	38	38	37	Sub Saharan Africa	55.6
Côte d´Ivoire	36	34	32	32	27	29	Sub Saharan Africa	n/a
Tanzania	36	32	30	31	33	35	Sub Saharan Africa	37.8
Ethiopia	35	34	33	33	33	33	Sub Saharan Africa	33.2
Niger	33	35	34	35	34	33	Sub Saharan Africa	34.00
Gabon	32	35	34	37	34	35	Sub Saharan Africa	42.2
Togo	32	32	32	29	29	30	Sub Saharan Africa	46
Djibouti	31	30	34	34	36	36	Sub Saharan Africa	44.1
Liberia	31	37	37	37	38	41	Sub Saharan Africa	36.50
Malawi	31	31	31	33	37	37	Sub Saharan Africa	46.1
Mali	31	32	35	32	28	34	Sub Saharan Africa	n/a
Gambia	30	26	28	29	28	34	Sub Saharan Africa	n/a
Sierra Leone	30	30	29	31	30	31	Sub Saharan Africa	34
Kenya	28	26	25	25	27	27	Sub Saharan Africa	48.5
Comoros	27	24	26	26	28	28	Sub Saharan Africa	n/a
Guinea	27	27	25	25	24	24	Sub Saharan Africa	33.7
Nigeria	27	28	26	27	25	27	Sub Saharan Africa	43
Uganda	26	25	25	26	26	29	Sub Saharan Africa	41
Cameroon	25	26	27	27	25	26	Sub Saharan Africa	46.50
Mozambique	25	27	31	31	30	31	Sub Saharan Africa	45.6
Madagascar	24	26	28	28	28	32	Sub Saharan Africa	42.6
Central African Republic	23	20	24	24	25	26	Sub Saharan Africa	56.2
Burundi	22	20	21	20	21	19	Sub Saharan Africa	33.4
Zimbabwe	22	22	21	21	21	20	Sub Saharan Africa	43.1
Democratic Republic of the Congo	21	21	22	22	22	21	Sub Saharan Africa	n/a
Republic of Congo	21	20	23	23	22	26	Sub Saharan Africa	n/a
Chad	20	20	22	22	19	19	Sub Saharan Africa	43.3
Eritrea	20	18	18	18	20	25	Sub Saharan Africa	n/a
Angola	19	18	15	19	23	22	Sub Saharan Africa	42.70
Equatorial Guinea	17	N/A	N/A	N/A	N/A	N/A	Sub Saharan Africa	n/a
Guinea-Bissau	17	16	17	19	19	25	Sub Saharan Africa	50.7
South Sudan	12	11	15	15	14	N/A	Sub Saharan Africa	46.3
Somalia	9	10	8	8	8	8	Sub Saharan Africa	n/a
Average Sub Saharan Africa	32.45	31.95	32.27	32.55	32.30	33.67		44.39