Socioeconomic and Political Dimensions of Development Worldwide

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Abstract

The scope of this paper is to examine the main economic, social and political dimensions of development worldwide. More specifically, our analysis focuses on the study of the links between the levels of income per capita, the level of perceived corruption, the degree of human development, the extent of government effectiveness and the quality of the political system as the main variables describing the level of overall development in a country. As we expected, we find that all these factors are very important determinants of the scale of overall development, since combinations of these factors according to their values determine clusters of countries with different patterns of overall development. As a result, an effective policy towards development demands integrated strategies that incorporate efforts for low corruption and high income, human development and government effectiveness levels. However, in order these strategies to be sustainable in the long run they should be associated with democratic transformations. If democracy is not consolidated and the political system is not characterized as free, overall development cannot be effectively achieved and especially maintained at the long run basis, in spite of any currently prevailing high income levels.

Keywords: Corruption; Economic development; Government effectiveness; Human development; Overall development; Political system; Social development

Introduction

In recent empirical work development is mainly measured and evaluated from its economic point of view, while social and political developmental aspects are mostly underestimated for several reasons. One of them and perhaps the most important is that the later cannot be easily measured in comparison to the former. Actually, economic figures as quantitative variables are measured in almost all countries with relative simple and widely acceptable indexes, such as income per capita, while social and political aspects of human action can only be successfully expressed by more complicated procedures on which generally there is no wider agreement.

This difficulty however should not be the reason for countries to reduce their concern for the social and political dimensions of overall development, as economic growth although necessary is not a sufficient condition for the wealth of nations. Actually, in modern societies there exist additional needs for wealth equalities and fair distribution of the economic result, effective reduction of corruption, better social security and what is called "social state", health and education system of high quality, better government effectiveness in order the state to satisfy social needs more efficiently and high standards of political rights and democracy, so that citizens to live in a comfortable, fair, secure and pleasant sociopolitical environment. The recent worldwide economic crisis has proved that often behind an economic crisis there is a hidden social and political crisis. In other words, economic development is not guaranteed in the long run unless it is associated with high social and political development. The countries of the world affected more deeply by the economic crisis and sovereign debt crisis seem to be those where the levels of social and political development are not considered as very high. This is not astonishing since social cohesion and democratic institutions help to discover and implement the appropriate solutions and to overcome economic problems.

Fortunately, widely recognized international agencies have recently developed methodologies to measure variables that express social and political dimensions or aspects of development, as it will be presented in the next section of the article, which allow researchers to include them

in their works on the overall development. It must be stressed from the outset that overall development is a multidimensional phenomenon associated with a variety of social, economic and political factors-variables, such as high per capita income, high human development, large government effectiveness, significant reduction of income and wealth inequalities, large social transformations, reduced corruption and democratic political system. In the following paragraphs we discuss in some detail the variables that have been used in our analysis as the main characteristics of the level of overall development on nations.

The variable very widely used in empirical research as the best measure or the best indicator of the level of economic development is real income per capita. International organizations such as the United Nations, the World Bank and the OECD classify countries as developed or developing according to their prevailing or average income per capita levels. Although income per capita is criticized as inadequate indicator of economic development, mainly because it is an inefficient measure of the average living standards and quality of life prevailing in a country, it is still recognized as the best available measure of the average level of economic development.

Another variable that we consider to be associated with all the three aspects or dimensions of the overall level of development is the level of perceived public sector corruption prevailing in a country. It has been acknowledged from the first stages of human civilization that whoever is in a position to exercise power may also be in the position to use his public office for individual benefit[1] . Public sector corruption is usually defined as the abuse of public power for private benefit [1] or the abuse of public office for private gain [2,3]. The World Bank

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defines public sector corruption as the abuse of public authority for private interest [4]. OECD defines public sector corruption as the misuse of public office, roles or resources for private benefit, material or otherwise [5]. A definition provided by the nongovernmental organization Transparency International that covers corruption in both the public and the private sectors of the economy is the misuse of trusted power for own profit [6]. Corruption can take up several facets, such as bribery, embezzlement, fraud, extortion and nepotism [7]. It should be made clear however that corruption is not always related to personal gain. More often than not the beneficiaries are the so-called third parties, namely the families, friends or the political party to which the individual belongs. Corruption could be characterized as a "disease" inherent to public power and an indication of bad governance [8].

As it has been stressed, corruption is a complex and a multidimensional phenomenon having several causes and effects. The factors that are associated to corruption are numerous. The most important ones are the level of economic development, the type of political authority, the quality of governance, the quality of the institutional framework, the effectiveness of the justice system, the degree of globalization, the level of competition, the structure and the size of public sector, as well as the cultural qualities, the geographic location and history. In summary, widespread corruption largely unveils the existence of institutional and political weaknesses as well as economic and social underdevelopment. It is recognized that corruption may be the single most significant barrier to both democratization and economic development [9].

Corruption is associated with two basic elements, public authority and morality. As a result the analysis of this phenomenon should not focus exclusively on its economic, political, social and other exogenous to the individual person or "environmental" aspects. The general attitude towards corruption is also determined by the level of individual morality that is by the system of individual behavioral and moral attributes [10]. Not all people facing the same socioeconomic environment are equally prone to corruption exhibiting identical opportunistic behavior. Having stressed this individualistic dimension of corruption, we should mention that it is generally accepted that corruption is mainly considered as a social phenomenon depending less on the individual psychological or personality characteristics of public employees and more on the cultural, institutional and political basis on which the specific nation is constructed [11], not ignoring of course and the level of its economic development. Corruption therefore is affected by and affects all the three dimensions of development.

Given these multidimensional relations of corruption and development we discuss in some length this phenomenon. The empirical analysis has established that the single most important factor affecting corruption is the level of economic development. In this context, corruption is considered to be both a cause as well as a consequence of poverty. In a sense, corruption is a deficiency that is responsible for low levels of economic development by reducing the chances for long-term economic growth [12-15]. Basically, corruption is detrimental to

economic growth and development by adversely affecting investment [5] [16,17]. Moreover, it is accepted that corruption is a barrier to the implementation of the reforms required for enhancing development, either political or economic and social [18]. The extent, however, of the consequences corruption has on economic development is largely determined by the existing institutional framework [19]. On another account, corruption is a "disease" which is caused by poverty, that is controlled only when economies develop [13,20,21] [6].

We argue moreover that overall development is also associated with the degree of human development that is by the level of health, the degree of access to knowledge and the level of well-being prevailing in a given country, as a wider notion than economic development. Human development refers to the expansion of people's freedoms and capabilities to live their lives as they choose [22]. Human development is both a process and an outcome. It is not only concerned with the process through which human choices are enlarged, but it also focuses on the outcomes of the enlarged choices [23].

Moreover, we accept that overall development is also associated with the degree of government effectiveness. An effective public sector promotes all the three dimensions of development. Kaufmann, Kraay and Mastruzzi define governance as "the traditions and institutions by which authority in a country is exercised. This includes the processes 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" [24].

It is also acknowledged that there exists a strong connection between the level of overall development and the quality of the political system. Underdevelopment is widely considered to be both a symptom and a cause for the malfunctioning of democratic institutions [25]. Moreover, democracy and the consequent public accountability reduce the costs of development. In a sense, the political system or the "political macrostructure" is responsible for determining the political motivation of all players in a state system and it is the very reaction of these factors that determines the behavior of state bureaucracy [26]. As a result, a highly developed and well-functioning democracy serves as a tool for increasing the level of overall development [27].

In this paper our first objective is to examine all the above factors, that is income per capita, corruption, human development, government

Variable	PR	GNI	HDI	GE	CL
CPI	**-0.66**	**0.75**	**0.75**	**0.92**	**-0.70**
PR		-0.46	-0.56	**-0.65**	**0.94**
GNI			**0.95**	**0.80**	-0.52
HDI				**0.83**	-0.61
GE					**-0.70**

Table 1: Pair-wise Spearman non-parametric correlation analysis between the investigated variables in each country (significant correlations at p<0.001 after Bonferroni's correction for multiple comparisons are shown in bold).

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[1]Although corruption can be observed at both the private and the public sector, the vast bulk of economic literature examines only public sector corruption, for two main reasons. First, the associated with the phenomenon is mainly public sector and second, widely accepted private sector corruption indices have not yet been constructed, rendering the relevant empirical research extremely difficult.
[2]For an analysis of the concept and the various definitions of corruption, see Johnston [3].
[3]For an analysis of this argument, see Tiihonen [8].
[4]For an analysis of the determinant factors of corruption see among others Lambsdorff and Treisman [12,13].
[5]It must be stressed however that some early works on the subject argued that corruption improves economic efficiency and therefore promotes economic growth operating as the necessary "grease" to lubricate the wheels of state bureaucracy. See for example Leff [16] and Huntington [17].
[6]Moreover, we must point out that corruption is extensive in low income countries, not because their inhabitants present a natural proclivity towards the said phenomenon, but because the conditions of life make them prone to that Lalountas et al. [21].

Cluster	n	CPI	PR	GNI	HDI	GE	CL
Developed/consolidated countries, mainly European Union countries (1)	24	7.25	1.21	33427	0.88	1.42	1.38
Affluent countries, mainly non- European Union countries (3)	10	7.46	3.60	54718	0.86	1.35	2.90
Emerging countries (2)	43	4.21	2.93	16214	0.76	0.21	2.73
Disadvantaged countries (4)	90	2.80	4.32	3607	0.54	-0.63	4.06

Note: The number in parenthesis indicates the clusters' number in Table 3.

Table 2: Results of cluster analysis: average value by variable and cluster.

effectiveness and political freedom in the forms of political rights and civil liberties, as the main indicators of the overall development and the ways that their combination in several levels cluster countries and determines patterns of development. Our analysis reveals that all the above factors are correlated and in general of crucial importance in determining the extent of overall development worldwide. It is assumed that political rights and civil liberties represent or measure the level of political development of countries while the remaining variables in the model represent the socio-economic one.

Data and Methodology

Data

Our analysis is based on six variables that have been derived for 167 countries (see list in Table 2 and full values in Appendix 1). It is the total number of countries for which data for all these variables existed in the year 2010. It could therefore be characterised as a worldwide analysis. The variables have been derived from official statistics and other reliable and well-known international data sources as it is explained below.

1. To express corruption, the corruption perceptions index (CPI) was used. The CPI is an international index provided annually by the nongovernmental organization Transparency International. It should be acknowledged that CPI is the most extensively used index for relevant empirical studies. It is a composite indicator, based on a variety of data derived from 13 different surveys carried out by 10 independent and reputable organizations. It measures corruption in a scale from 0 to 10, where 0 represents the highest possible corruption level, while as the scale increases there is the perception that corruption does not exist in a given country. Despite the fact that the index is not the outcome of an objective quantitative measurement of corruption, it is of great importance since it reveals how this phenomenon is being perceived. The major strength of the CPI lies in the combination of multiple data sources in a single index, a fact that increases the reliability of each country's score [12,28][7] . The data used for the CPI refer to the year 2010 and as it has already been stated are provided by Transparency International [29] and for that year cover 178 countries or territories.

2. Gross National Income per capita in purchasing power parities or current international dollars (GNIpc,ppp) to approximate the level of economic development in each country. GNIpc,ppp is gross national income (GNI) converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power over GNI as a U.S. dollar has in the United States[8]. GNIpc,ppp is very useful in economic analysis when the objective is to compare broad differences between countries in living standards since, as we have stated, purchasing power parities take into account the relative cost of living in various countries, while nominal GNI (or GDP) does not incorporate any such considerations. GNIpc,ppp is an indicator widely used in international comparisons of economic development.

The data used refer to the year 2010 and are provided by the World Bank [30] and for that year cover 215 economies.

3. The human development index (HDI) as a summary measure of the level of human development based on non-income measures. It is estimated by the United Nations Development Programme (UNDP) and it measures the average achievements in a given country in three relevant dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living. It is a composite index with life expectancy in birth, mean years of schooling, expected years of schooling and gross national income (GNI) per capita as its main components. Despite its inherent limitations the index is a useful comparative measure of the level of human development. According to this index countries are classified in three categories: High human development, if the value of the index is higher than 0.800, medium human development, if the value of the index is between 0.500 and 0.799 and low human development, if the value of the index is lower than 0.500. The data used refer to the year 2010. They are provided by the UNDP [31] and for that year cover 169 countries and 25 territories.

4. To express government effectiveness the relevant World Bank government effectiveness indicator (GE) is used. This indicator is very useful because it aims at capturing the quality of public services provided, 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 [32,33]. The aim of the indicator is therefore to capture the capacity of the public sector to implement sound policies. GE is one of the six composite indicators of broad dimensions of governance, the so called worldwide governance indicators (WGI) covering over 200 countries since 1996 and produced by Kaufmann et al. [32]. The values of GE lie between -2.5 and 2.5. Actually, the variable has been transformed to a standard normal one (with mean 0 and standard deviation 1), so that cross-country and over time differences in the measurement scale are avoided. Higher values correspond to better governance. Although this indicator measures subjective perceptions regarding government effectiveness and it is not the outcome of a quantitative objective measurement, it is of a great importance since it reveals how government effectiveness is being perceived.

5. The "political rights" index (PR). The index is based on the evaluation of three sub-indexes, namely electoral process, political pluralism and participation and functioning of government. The index is estimated by the Freedom House organization [34] The PR index measures from 1, which ranks a country as very free, up to 7, which ranks a country as not free. According to the PR index countries are characterized as free countries (F) if they score 1.0-2.5 in the 1-7 scale, partly free countries (PF) if they score 3.0-5.0 in the 1-7 scale and not free countries (NF) if they score 5.5-7.0 in the 1-7 scale. The data

[7]For an extended analysis and assessment of the various indicators of corruption, see mainly UNDP [28].
[8]See http://data.worldbank.org/indicator/NY.GNP.PCAP.PP.CD
[9]For more details see Methodological Summary, Freedom House (2013).

used for the PR index refer to the year 2010 and are provided by the organization Freedom House [35] and for that year cover 194 countries and 14 territories.

6. The "civil liberties" index (CL). The index is based on the evaluation of four sub-indexes, namely freedom of expression and belief, associational and organizational rights, rule of law, and personal autonomy and individual rights. The index is estimated by the Freedom House organization (2013)[9] [34]. The CL index measures from 1, which ranks a country as very free, up to 7, which ranks a country as not free. According to the CL index countries are characterized as free countries (F) if they score 1.0-2.5 in the 1-7 scale, partly free countries (PF) if they score 3.0-5.0 in the 1-7 scale and not free countries (NF) if they score 5.5-7.0 in the 1-7 scale. The data used for the CL index refer to the year 2010 and are provided by the organization Freedom House [35] and for that year cover 194 countries and 14 territories.

It must be stressed that the average of the PR and CL ratings is known as the "freedom rating" index (FR) and determines the overall status of a country as a free, partly free and not free. However, since the two indexes focus on different aspects of democracy and freedom and since there are some deviations between the PR and CL ratings for several countries, we decided to use the two separate ratings instead of the average FR index.

Methodology: The variables have been standardized when appropriate. A two-step multivariate strategy has been developed in order to characterize the socioeconomic and political system of each country according to the selected economic and non-economic features describing the level of economic, social and political development in each country. Analysis steps include: (i) a pair-wise Spearman non-parametric rank correlation analysis, and (ii) a non-hierarchical Cluster Analysis.

A pair-wise Spearman non-parametric co-graduation analysis was carried out separately for each variable in order to test if significant correlations exist over the whole number of countries examined (n = 167).

A non-hierarchical k-means Cluster Analysis (CA) was carried out with the aim at separating countries in few groups with homogeneous socioeconomic and political patterns and corruption levels. The best partition (i.e. the optimal number of clusters in terms of group separation) was chosen according to the Cubic Clustering Criterion that works through the maximization of the ratio of the intra-group variance to the inter-group variances. Outputs of the CA include the average of each of the six considered variables by cluster, together with cluster membership and the multivariate distance from the centroid of each cluster by country. An ANOVA table, that was also constructed, indicates which variables contribute mostly to the differentiation of the clusters. Moreover, the analysis has been extended to the indication of the greatest similarities and dissimilarities between the clusters formed.

Results

Pair-wise Spearman co-graduation analysis indicates the existence of important relationships among the considered variables (Table 1). The CPI has been found correlated to all the remaining variables, significantly increasing with GE, GNI and HDI and decreasing with CL and PR. These relationships between CPI on the one hand and GE, GNI, HDI, PR and CL on the other are the expected ones. The highest correlation coefficient has been found for the relationship between GNI and HDI possibly indicating that the gross national income can be considered as a proxy for the level of socioeconomic development in the countries examined in the present study. While strongly positively

correlated to CL, PR was negatively associated with GE, as it was expected. Finally, GE was negatively correlated to CL. In general, the relationships between the above variables are the ones postulated by the relevant theory.

Cluster Analysis identified four homogeneous groups of countries (Table 2). Two groups include highly developed countries. The full list of countries according to the cluster membership is shown in Table 3.

According to Table 4, the greatest dissimilarities exist between rich non European countries and disadvantaged countries and between the former with emerging countries. A considerable distance exists also between Developed European countries and disadvantaged countries, while the greatest similarity exists between the later and emerging countries as expected.

ANOVA (Table 5) indicates, that overall, each of the variables used in the present clustering differs significantly across the clusters (p-value=0 for all the variables). However, according to F values, the variable contributing more to cluster differentiation is GNI, as it was expected. Moreover, the contribution of CPI, HDI and GE is high enough.

Firstly, the cluster with the highest number of countries (n=90) includes mainly economically-disadvantaged and poor countries in Africa, Asia and Latin America showing the lowest CPI score (indicating the highest level of corruption, see 'data and methodology' paragraph) and the highest PR and CL scores (indicating the lowest political rights and civil liberties levels observed in the sample). Per capita GNI is less than 4,000 international dollars per year and the HDI is the lowest found in the sample together with a low GE. Examples of countries belonging to this cluster are Cape Verde, Congo, Guyana, Honduras, Kiribati, Pakistan, Samoa and Uzbekistan.

A total of 43 countries have been classified as emerging countries showing a considerably higher economic level and higher social and political development in comparison to the above cluster but already unstable political systems and the worst government effectiveness. The CPI average score is moderately low indicating a quite high perception in the level of corruption together with relatively high PR and CL scores indicating a modest level of political rights and civil liberties. On average, per-capita GNI is higher than 15,000 international dollars per year with an intermediate score for the level of human development. Examples of countries belonging to this cluster are Argentina, Bahrein, Chile, Brazil, China, India, Mexico, Russia and Saudi Arabia.

Only 10 countries have been classified as affluent countries showing very high levels of economic development (the highest GNI per-capita, on average, that is 54,718 international dollars) relatively high government effectiveness and fairly good human development. However, in some of these countries both PR and CL show relatively high scores suggesting heterogeneity in the political systems of the two sub-classes participating to the cluster, i.e., (i) high-income and firmly democratic countries (United States, Luxemburg, Switzerland and Norway) and (ii) high-income and partly free (Hong Kong, Kuwait and Singapore) or even not free countries (United Arab Emirates, Brunei and Qatar). Interestingly, CPI average score is the highest observed in the first sub-class (8.0) indicating low or very-low levels of corruption. In the second sub-class, the countries included are associated with higher levels of corruption (6.5) than the first, with the astonishing exception of Singapore (9.3) that is considered as one of the least corrupted countries of the world.

Country	Cluster #	Distance	Country	Cluster #	Distance	Country	Cluster #	Distance
Afghanistan	4	1.1	Germany	1	1.8	Nigeria	4	0.6
Albania	4	2.0	Ghana	4	0.8	Norway	3	1.3
Algeria	4	1.8	Greece	1	2.5	Oman	1	3.3
Angola	4	0.6	Guatemala	4	0.4	Pakistan	4	0.3
Argentina	2	0.4	Guinea	4	1.1	Panama	2	1.4
Armenia	4	0.8	Guinea–Bissau	4	1.0	Papua New Guinea	4	0.5
Australia	1	1.3	Guyana	4	0.1	Paraguay	4	0.6
Austria	1	2.4	Haiti	4	1.0	Peru	4	2.3
Azerbaijan	4	2.3	Honduras	4	0.1	Philippines	2	0.1
Bahrain	2	2.0	Hong Kong	3	3.0	Poland	2	1.1
Bangladesh	4	0.7	Hungary	2	1.3	Portugal	1	3.3
Barbados	2	1.0	Iceland	1	1.8	Qatar	3	8.9
Belarus	2	1.2	India	2	0.1	Romania	2	0.9
Belgium	1	1.8	Indonesia	4	0.2	Russia	2	1.1
Benin	4	0.8	Iran	2	2.0	Rwanda	4	1.0
Bhutan	4	0.6	Iraq	4	0.1	Samoa	4	0.3
Bolivia	4	0.4	Ireland	1	0.1	Sao Tome Principe	4	0.7
Bosnia Herzegovina	4	2.1	Israel	1	3.3	Saudi Arabia	2	2.7
Botswana	2	1.1	Italy	1	0.8	Senegal	4	0.7
Brazil	2	2.2	Jamaica	4	1.6	Serbia	2	2.2
Brunei	3	2.0	Japan	1	0.4	Seychelles	2	2.5
Bulgaria	2	1.2	Jordan	4	0.9	Sierra Leone	4	1.1
Burkina Faso	4	1.0	Kazakhstan	2	2.4	Singapore	3	0.9
Burundi	4	1.2	Kenya	4	0.8	Slovakia	2	2.2
Cambodia	4	0.6	Kiribati	4	0.0	Slovenia	1	3.0
Cameroon	4	0.5	Korea (South)	1	2.0	Solomon Islands	4	0.6
Canada	1	1.9	Kuwait	3	0.6	South Africa	2	2.5
Cape Verde	4	0.0	Kyrgystan	4	0.6	Spain	1	1.0
Cent. African Republic	4	1.2	Laos	4	0.5	Sri Lanka	4	0.6
Chad	4	0.9	Latvia	2	0.1	Sudan	4	0.6
Chile	2	0.6	Lebanon	2	1.1	Swaziland	4	0.8
China	2	1.6	Lesotho	4	0.7	Sweden	1	2.6
Colombia	4	2.2	Liberia	4	1.3	Switzerland	3	1.9
Comoros	4	1.0	Libya	2	0.1	Syria	4	0.6
Congo – Brazzaville	4	0.2	Lithuania	2	0.6	Tajikistan	4	0.6
Costa Rica	2	2.1	Luxembourg	3	2.7	Tanzania	4	0.9
Cote d'Ivoire	4	0.7	Madagascar	4	1.1	Thailand	4	1.9
Croatia	2	0.9	Malawi	4	1.1	Togo	4	1.1
Cyprus	1	1.2	Malaysia	2	0.9	Tonga	4	0.4
Czech Republic	2	2.9	Maldives	4	1.7	Trinidad Tobago	2	3.3
Denmark	1	3.0	Mali	4	1.1	Tunisia	4	2.2
Djibouti	4	0.5	Malta	2	3.2	Turkey	2	0.4
Dominica	2	1.8	Mauritania	4	0.5	Turkmenistan	4	1.6
Dominican Republic	4	2.2	Mauritius	2	1.1	Uganda	4	1.0
Ecuador	4	1.7	Mexico	2	0.8	Ukraine	4	1.2
Egypt	4	1.0	Moldova	4	0.1	United Arab Emir.	3	3.2
El Salvador	4	1.2	Mongolia	4	0.0	United Kingdom	1	0.8
Equatorial Guinea	2	2.3	Montenegro	2	1.5	United States	3	3.0
Eritrea	4	1.3	Morocco	4	0.4	Uruguay	2	1.2
Estonia	2	1.2	Mozambique	4	1.1	Uzbekistan	4	0.2
Ethiopia	4	1.1	Namimbia	4	1.1	Vanuatu	4	0.3
Findland	1	1.3	Nepal	4	1.0	Venezuela	2	1.8
France	1	0.4	Netherlands	1	3.3	Vietnam	4	0.2
Gabon	2	1.4	New Zealand	1	1.9	Yemen	4	0.5
Gambia	4	0.7	Nicaragua	4	0.4	Zambia	4	0.9
Georgia	4	0.5	Niger	4	1.2			
Developed/consolidated countries EU		Code 1	Affluent countries mainly non-EU			Code 3		
Emerging countries		Code 2	Disadvantaged countries			Code 4		

Table 3: Cluster membership by country and distance from the cluster's centroid.

Cluster	1	2	3	4
1		17567,858	20141,334	30898,370
2			37709,191	13330,512
3				51039,702

According to Table 4, the greatest dissimilarities exist between rich non European countries and disadvantaged countries and between the former with emerging countries. A considerable distance exists also between Developed European countries and disadvantaged countries, while the greatest similarity exists between the later and emerging countries as expected.

Table 4: Distances between final cluster centers.

Cluster		Error		F	Sig.
Mean Square	df	Mean Square	df		
168,862	3	1,411	163	119,645	000
68,301	3	3,281	163	20,816	000
1,196E10	3	16814602,422	163	711,000	000
1,130	3	,011	163	101,643	000
34,604	3	,324	163	106,695	000
53,372	3	2,160	163	24,709	000

ANOVA Table 5 indicates, that overall, each of the variables used in the present clustering differs significantly across the clusters (p-value=0 for all the variables). However, according to F values, the variable contributing more to cluster differentiation is GNI, as it was expected. Moreover, the contribution of CPI, HDI and GE is high enough.

Table 5: ANOVA analysis.

Finally, 24 countries have been classified as developed and consolidated democracies placed mainly in the European Union with high economic and social development (the highest HDI on average). PR and CL scores both reach the highest score in the sample indicating the highest level of political rights and civil liberties observed. The CPI average score is similar to that observed for the affluent, mainly non-European Union countries and indicates a low corruption level. Government effectiveness here is the highest among the clusters. Examples of countries belonging to this cluster are Australia, Austria, Belgium, Canada, Finland, Greece, Israel, Italy, Japan, Netherlands, New Zealand, Spain, Sweden, United Kingdom, France, Germany and Denmark.

Discussion and Conclusions

The above analysis has highlighted that the level of economic development, the perception in the level of corruption, the degree of human development, the extent of government effectiveness and the quality of the existing political system, are very important dimensions that determine the overall developmental patterns worldwide. Generally speaking, the above analysis is compatible to the relevant theory and previous research as corruption seems to be low where all other factors in concern are high, i.e. the level of economic development, the degree of government effectiveness, the quality of human development and political democracy. The outcome of our empirical analysis suggests that in order to increase the level of overall development, not only economic but also social and political efforts should be undertaken. We should also mention the very strong correlation of governance effectiveness with the CPI, a finding that may indicate the role of the state in the creation of a "fair" society. Improving the quality of public services, increasing the independence of state bureaucracy and politicians from political pressures, as well as improving the effectiveness of the processes of policy formulation and implementation and the credibility of government's commitment to such policies, reduces the motives of voters, state officials and politicians to resort to corruption and as a result increases the overall development.

We also realize that income per capita is strongly correlated to the degree of corruption in the world. The two variables CPI and GNIpc,ppp are positively related: higher values of GNIpc,ppp are associated with higher values of CPI that is lower perceived levels of corruption. However, the effective control of corruption should not be misinterpreted and considered as a "luxury good" that people demand once their incomes increase to a certain level. It is achieved only through the adoption and effective implementation of the appropriate long-run economic, social and political processes, a point to which we will return in the end. It has been shown that the level of corruption is an extensive one in the low income countries. And this is because in low income economies, corruption is to some extent a "survival strategy". In these countries, increasing personal income is a strong motive and is becoming stronger due to conditions of utter deprivation and low public sector salaries in several countries of the region. In order to survive and support their families, low paid public sector employees may need to moonlight or take small bribes, especially when their jobs are associated with high degree of uncertainty, mainly due to political instability, that reduces the probability of future wages appropriation. According to this line of thought, corruption is a "disease" caused by poverty, or a by-product of poverty that only diminishes when economies develop.

High Human development is positively correlated with all remaining factors (except corruption) in concern and especially with Income. Improving the quality of life and increasing the level of education, apart from rising incomes, increases the level of overall development since it affects positively all the three dimensions of development, that is the economic, social and political. Investment therefore on human capital should be considered as the most productive investment associated to overall development.

The political system seems to be another critical factor that affects the level of overall development worldwide. A strong negative correlation is present between PR and CL on the one hand and CPI and GE on the other. The higher the PR and CL (that is the country is associated with reduced freedom), the higher the corruption and the lower the government effectiveness. The political system seems to be less associated with economic development as expressed with GNI in the present study.

Consequently, it is only the long lasting and true democratic form of government and the establishment of a genuine democratic tradition that prove to be factors of critical importance to guarantee a high overall development level and especially the social aspects of it as they are expressed by the level of corruption and government effectiveness. Only when democracy has been consolidated we can accept unambiguously that it reduces corruption and increase government effectiveness and through these it increases the level of development. It could be argued therefore that an important guarantee for achieving and maintaining high levels of development is through the smooth functioning of democratic institutions and civil liberties. Notions such as transparency, collectivism, rule of law, freedom of expression, association and organization etc., constitute but a few of the ingredients to a successful recipe of a smooth operation of a lawful state. Western type democracies owe their prosperity and overall development to a great extent exactly to these factors.

According to the mean value of the above variables examined that represent the several aspects of overall development the countries of the world are clustered in four categories with specific characteristics.

The first cluster represents the developed/consolidated countries

mostly in Europe that has achieved high enough (not the highest among the clusters) economic performance accompanied by the highest scores in political and social development as expressed by the very low corruption, the highest political rights, civil liberties, human development and government effectiveness. Achieving this combination we could say that Europe is the region with the highest overall development in the world, that present a balanced development with strong concern to the society and the political system. Otherwise this is a region where economic development is partly sacrificed in order social and political institutions to be maintained and improved.

The second cluster (cluster 3 in Table 3) represents very rich countries of North America (USA), Upper and Middle East with the lowest corruption and high government effectiveness but also with problems in political development in a part of them. The aforementioned countries seem to give priority to the economic and social development but present a handicap in political development, a fact that reduces the overall development level.

A third cluster (cluster 2 in Table 3) containing many emerging countries that are not only associated with half the income of the European countries and the 30% of the very rich countries but they present relatively higher perceived corruption levels and low political development and government effectiveness. Human development is not far from the score of the aforementioned clusters. Political problems and a government with very low effectiveness in these countries seem to be serious than the handicaps for the achievement of higher overall development as described in the present article.

The last category that contains more than 50% (actually 53,9%) of the countries examined in our analysis, are the most disadvantageous with very poor economic performance (with GNI just equal to the 22 % of that of the emerging countries) and very low scores in all indexes of social and political development. The existence of numerous clusters with low performance in all dimensions of development is additional evidence that social, political and economic aspects of development are interrelated and no one of them can be omitted from the developmental design. High values of these three dimensions create "virtuous cycles" for development, while low values of them create "vicious cycles" of development.

The main conclusion of the above analysis is that the main instruments to increase the level of overall development of countries is to follow integrated strategies aiming at reducing corruption and increasing income, human development and government effectiveness levels. However, in order to be effective, these strategies should be associated with the necessary democratic transformations. If the political system is considered as not free, a high overall level of development cannot be achieved and maintained, mainly because corruption cannot be effectively reduced in spite of the prevailing high income levels. The examples of Brunei, Kuwait and United Arab Emirates confirm this conclusion, with the astonishing however exemption of Singapore that, although it is considered as high income and partly free country, it is one of the least corrupted countries in the world. This outcome could be attributed to cultural factors not examined in the present study.

On line of the above analysis we argue that a high overall level of development is achieved and maintained in the long run only when socioeconomic development is associated with the consolidation of democracy. Increasing incomes is a necessary but not a sufficient condition to increase overall development, unless it is associated with the other factors outlined above.

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