Increasing Budget Transparency and Control of Corruption – Strategy to Increase Human Development

Maria Violeta *CIMPOERU*
Bucharest University of Economic Studies

Abstract

With reference to empirical studies in the literature we have developed a multiple regression model for year 2012 and we have examined the links between human development, as measured by the HDI, Human Development Index, which compares the level of development of a country's fiscal transparency measured by Open Budget Index, and control of corruption, as measured by the Control of Corruption, which is the level at which public power is exercised over private gain, and got a very strong causal relationship. Over 50% of the variation of the dependent variable, the HDI is explained by the independent variables, budgetary transparency (OBI) and corruption control (CC). The independent variables OBI and CC have a positive and significant effect on the level of human development in all countries. Therefore a high level of human development (access to quality healthcare and political rights, civil liberties and quality education), corresponds to a high level of budgetary transparency and control of corruption.

JEL Classificatin: H 61, H 62, M 48

Key words: budget transparency, human development, control of corruption, government policies

1. Introduction

After World War I transparency was included in the negotiations between the states, as an international issue (Braman, 2006, quoted by Bertot et al., 2010). Most nations have begun to promote transparency, after a long period of time from the end of the war. So, in the mid-1980s, only 11 states had adopted laws about informational freedom, but over time their number has increased. In 2004, the number of states that had these laws was 59 (Relly and Sabharwal, 2009; Roberts, 2006, quoted by Bertot et al., 2010). Transparency is recognized as a principle of a healthy budgeting in the Public Expenditure Management Handbook of the World Bank (World Bank, 1998).

This is often presented as a "public virtue", which you should not resist them. The famous remark of Justice Brandeis that "the sun is the most powerful of all disinfectants" suggests, undoubted, the importance of transparency. Referring to the expectations that we have from transparency, it raises the questions: *the objectives of transparency consist in removing corruption?* or *the objectives of transparency are channeled for greater efficiency and effectiveness in the use of public resources as well as increasing the legitimacy and accountability of public institutions?* The answers to these questions depend on the political affiliations of each country.

In a specific country, the dominant policy concern is to reduce corruption or in other country the efforts may head to increase the effectiveness and legitimacy. Studies in the literature on transparency (not necessarily using this word) have a long history (Hood, 2006, quoted by Heald, 2012). Current demands for transparency aimed both the public environment as well as private sector activities and personal and professional actions. In some political speeches or interviews about public policy has been omitted the call for transparency, using the calls that coat old interests and ideas in trendy clothes, as "democracy" or "accountability" (Heald, 2012). Dawes (2010) considers that two general principles, administration and usability, helps to simplify and to counterbalance the many considerations needed in order to achieve a greater budgetary transparency and to realize a potential public value of governmental information. Administration is interested in ensuring accountability, legality and validity and usability encourages applications, exploration and innovation. These principles may seem antithetic, but may alsobe complementary; although they serve different purposes, they have the same goals and they strengthen each other (Figure1).

They reduce the risk of misunderstanding and make possible a better public understanding, also a greater trust in government information, thus encouraging innovative instruments and measures. As these instruments are easy to use and are better known, increase the demand for information and reviews of policies and activities that ensure its quality (Dawes, 2010).
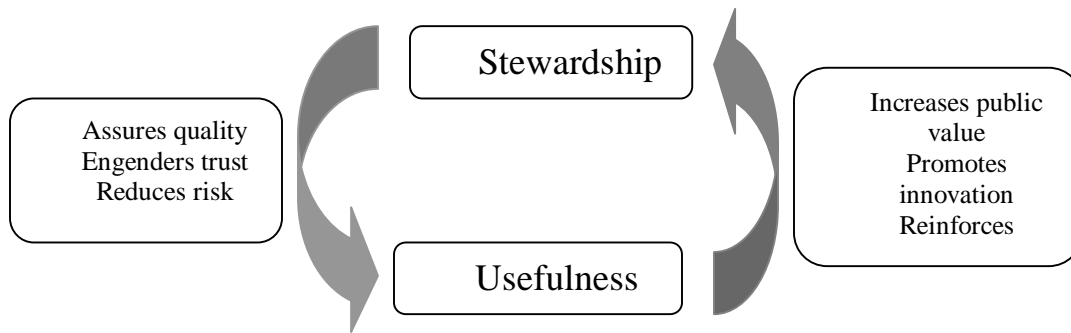

Figure 1.A conceptual model of information-based transparency principles

Source: *Dawes, 2010, p. 9*

Information about government activities facilitates the civilian control over the policy makers, which have a benefic effect on government accountability. The information availability is extremely important for the fight against corruption and for efficiency of public services, because modern economies budgets are very complex, the actual budget balance can be hidden, and policymakers can avoid certain tax burdens: overgrowth spending and government debt. Simple, clear and transparent budgets are not always interesting for politicians (Benito and Bastida, 2009).

However, governments should strive to increase the budgetary transparency, so that the citizens and the financial markets may assess the financial positions of governments in order to make proposals for the purpose of improving the decision-making process in public institutions (Badun, 2009). Bertot et al. (2010) considers that the social technologies available today are transforming, in general, and are concerning the transparency and the anticorruption measures, in particular. Although there are challenges and barriers when implementing the specific applications, they can be overcome through a combination of political will and technology. The extent to which ICT (information and communication technology) can create a culture of transparency and openness is not clear yet, however, there are indications that ICTS can, in fact, create an atmosphere of openness, which identifies and removes a corrupt behavior. Transparency and the right to access government information are now regarded worldwide as essential for democracy, trust in government, corruption prevention, decisions-making based n information, accuracy of governmental information, provision of information toward the public, companies and journalists, among other essential functions in society (Cullier and Piotrowski, 2009; Mulgan, 2007; Quinn, 2003; Reylea, 2009; Shuler et al., 2010; quoted by Bertot et al., 2010).

To answer the hypothesis proposed in this research on the links between human development, budget transparency and control of corruption, it was used a multiple regression model. This model combines synthetic strategy factors of increased human development demonstrating its functionality based on the positive relationship between them. Based on this model was tested influence the human development (HDI) by independent variables budgetary transparency (OBI) and control of corruption (CC) at the macroeconomic level. The paper is organized as follows: a brief introduction followed by literature review; main research hypotheses and brief description of data used in this paper; research methodology; descriptive statistics, empirical results; descriptive statistics, empirical econometric model and testing the economic model followed by conclusions drawn from empirical study.

2. Literature review

Although in the literature there are critical studies of the concept of budgetary transparency (Prat, 2005, Gavazza and Lizzeri 2009), the demands for transparency are obvious, because it is difficult to determine a counterweight that can be used for the social functions of ignorance. Studies in the literature have highlighted the benefits of budgetary transparency on performance and government (Bellver and Kaufmann 2005; Hameed, 2005; Islam, 2003).

Empirical research conducted by Haque and Neanidis (2009) suggests that budgetary transparency, measured by budget transparency index (OBI, 2006) has significant negative impact on corruption, as measured by the corruption perception index (CPI).Other empirical studies have shown that transparency of public finance management leads to governments efficient sustainable performance (Alt and Lassen 2006), to reduce sovereign borrowing costs (Glennerster and Shin, 2008) and lower levels of corruption (Treisman, 2000, 2007, Reinikka and Svensson, 2004,Freille et al, 2007, quoted by Haque and Neanidis, 2009). CBPP researchers have established a positive correlation between the OBI score and GDP per capita and stated that richer countries have better results than other countries OBI (www.openbudgetindex.org).

The results of the study conducted by Alt et al. (2012) show that, in terms of reduced budgetary transparency, imposing fiscal rules can be counterproductive. Inability to observe the behavior and the fiscal regulations creates incentives for the authorities to resort to the budgetary "tricks" (to manipulate rather than to repair the reporting of fiscal policy). The institutions that reflect a greater transparency of the budgetary process reduce or possibly eliminate these incentives. Their research points out that the electoral calendar has similar effects: the democratic systems, even in advanced ones, the temptations for politicians to engage scammers increase when elections intervene, but the transparency of the budgeting process alleviates this problem, and temptations to manipulate are stronger during economic stress periods. This effect of the global crisis is accentuated by reduced transparency, which allows the politicians "to escape" using budgetary manipulations. The authors noted that the budgetary regulations simply do not work in non-transparent backgrounds (Alt et al., 2012).The literature focusing on poor countries provides strong proofs that corruption is against economic development. Empirical studies have linked an increase in corruption of one standard deviation with a 0.8 to 1.0 percentage point decline in GDP growth (Pellegrini and Gerlagh, 2004; Mauro, 1995). The relation between corruption and economic growth can be seen at the micro-level (Beekman et al., 2013), is non-linear (Méon and Sekkat, 2005; Méndez and Sepúlveda, 2006; Aidt et al., 2008), and is of a causal nature Swaleheen, 2011, (quoted by Hessami, 2014).

The results of empirical studies (Hessami, 2014), based on a panel dataset for 29 OECD countries during the period from 1996 to 2009, are in line with budget allocation forecasts. When countries' corruption indicators increase, the shares of rent-creating public spending in government budgets also increase. The literature on corruption has focused on poor countries. Here it has been investigated the relationship between political and bureaucratic rent creation and rent extraction in the rich countries of the OECD. The political rent creation and rent extraction in high-income countries through the composition of public spending is not as clear as corruption in poor countries where officials can simply take bribes from the private companies and is not necessary always to hide it. The results of the work suggest that corruption in the large sense of use of government office for benefit at the expense of the people is not confined to poor countries (Hessami, 2014).The connection between corruption and economic activity has always been at the first page of the research agenda on the economics of development. Despite the fact that some earlier studies claimed that corruption may advantage the economic growth through the role of bribery as 'speed money' that reduces the costs associated with red tape (Leff, 1964), the most recent surveys shows a negative link between corruption and economic development. A lot of studies, such as those by Mauro (1995), Keefer and Knack (1997), Gyimah-Brempong (2002), Aidt (2009), and Bhattacharyya and Hodler (2010), have showed different mechanisms through which the manifestations of corruption are big barriers to the long-term prospects of developing economies. This is why the World Bank has showed the corruption as "the single greatest obstacle to economic and social development" (quoted by Varvarigosa and Arsenisba, 2015).

Even if we would not be aware of any existing empirical analyses that examine the relation between corruption and development, there are lot of facts supporting the elements that together are the main mechanism of our result (e.g. the negative relation between corruption and economic development; the extenuating effect of corruption on public education spending; the reduction in population growth rates at later stages of development). So, although this is a work whose achievements is theoretical, it give empirically relevant ideas that, on the one hand, certainly improve our current understanding on relevant issues and on the other hand, they offer important policy implications (Varvarigosa and Arsenisba, 2015).

The role of human capital in the economic growth of a country is indispensable. There are a large number of studies based on panel, cross sectional and time series data that found human capital as one of the most important elements in growth process. Most of such surveys are made in the last decades (Wilson and Briscoe, 2004) due to the availability of large cross country data which allowed the researchers to empirically test the models based on different sets of theories (Qadri and Waheed, 2014).

Beginning with Mauro (1995) many empirical studies (e.g. Svensson (2005), Asiedu and Freeman, 2009, Neanidis and Haque, 2009) have demonstrated that corruption can reduce the economic growth, the investments and the budgetary transparency. Brunetti and Weder (2003) examine the relations between a free press and corruption, indicating a very strong causal relationship, starting from a free press to a lesser corruption. Corruption has both political and economic valences. The literature reveals that bureaucrats need high salaries to reduce corruption. An important topic in economics becomes the relation between the size of government and its inefficiency (GB Kotera et al., 2012).

In a country that is evolving in terms of economic, corruption must be reduced gradually (Lindgreen, 2004). In this context, corruption disadvantage relations between authorities, businesses and individuals, reduces the efficiency of resource allocation and growth, increase income inequality, eroding trust in public institutions and reduce the willingness of investors to invest and encourage a culture of public weak service (Merwe and Harris, 2012).Finally, it is important to establish and define the approach the corruption and transparency in a manner in accordance with the capabilities and constraints of the country. A succession of appropriate and realistic measures can significantly help control corruption and improve transparency for effective an efficient allocation and use of public resources by government for human development.

3. *Main research hypotheses and brief description of data used in this paper*

The growth of competitiveness and the development of a knowledge-based economy -focusing on the improvement of corruption control and rational use of the public resources, on improving budgetary transparency, on increasing the living standards, on the development and the more efficient use of human capital through social advancement - are prerequisites for sustainable development. The advantages and the challenges in measuring a country's sustainability are analyzed from the perspective of human development. Conceptual framework for an evaluation of sustainability, on the basis of the Human Development Index (abbreviated HDI) reflects the concept of human development through intergenerational equity, based on the principles of global justice and rooted in the premise that the choices made today should not limit the options available to future generations. The approaches centered on people and based on the HDI also includes the idea of planetary thresholds, showing how political and economic changes, just as climate changes, present serious long-term risks for human development, especially in poor developed countries (Khalid Malik, http://hdr.undp.org/en/mediacentre/press/).

The impact of social variables, such as the effects on health, political rights, civil liberties and the level of education is revealed by HDI. The correlation between the level of education and the political rights and civil liberties is positive, while the population density depends on the education index. Increasing the education level affects the growth rate of the population and, as a consequence, the pressures on governments in order to improve the management of governance by enhancing governmental responsibilities. In this paper we focus on two objectives concerning the strategy for human development growth, namely:

➢ Optimizing the control of corruption –the phenomenon of corruption is negatively affecting the good governance;

➢ Improving the budgetary transparency - an important precondition for sustainable development, good governance and the overall fairness of the budget.

We are introducing, this way, the following hypothesis: ***The level of human development in X country is positively correlated with synthetic determinants of growth strategy (budgetary transparency and corruption control, measured at the macroeconomic level for the country in question).***

Studies in the literature have dealt with various types of indicators to assess the level of corruption, budgetary transparency and economic growth, but our research analyzed the impact of the following macroeconomic indicators, as independent variables (Open Budget Index - OBI, corruption control - CC) concerning – human development index – HDI, as the dependent variable. Helen Clark stressed the need to measure, in the international community, the economic development beyond the gross domestic product (GDP). "Equity, dignity, happiness, sustainability-all these are fundamental for our lives, but absent in the GDP. The progress must be defined and measured in a manner which will count for the broader picture of human development and its context." (http://hdr.undp.org/en/mediacentre/ press/).

Human Development Index (abbreviated HDI) is a composite measure of health, education and income, and it had become a more widely accepted alternative than GDP for evaluating a country's progress.

HDI has values starting from 0 (low level of development) to 1 (high level of development) and it is used in the classification of countries into four groups: very high human development, high human development, medium human development, low human development (table 1). The data are taken from the website of the United Nations Development Programmers (http://www.undp.org).

Table1. Grouping of countries according to their level of human development in 2010-2012

Country	HDI 2010		HDI 2011		HDI 2012	
	min	max	min	max	min	max
Veryhighhumandevelopment	0.791	0.941	0.793	0.943	0.806	0.943
Highhumandevelopment	0.698	0.780	0.698	0.783	0.698	0.787
Medium humandevelopment	0.518	0.697	0.522	0.698	0.555	0.695
Lowhumandevelopment	0.282	0.507	0.286	0.510	0.335	0.537

Source: Human Development Report 2012, UNDP

Until 2011, the HDI was calculated as the arithmetic average of the three indices, after the following formula (Human Development Report, 2009):

HDI = 1/3 (Life Expectancy Index) + 1/3 (Education Index) + 1/3 (GDP Index)

Beginning with 2011, the HDI is calculated as a geometric mean, mentioning that GDP index is replaced with the gross national income per capital, making calculation formula (1) (Human Development Report, 2011)

$$HDI = \sqrt[3]{I_{Life} * I_{Education} * I_{Income}} \quad (1)$$

Open Budget Index (abbreviated OBI) is a tool that documents the states' budgetary transparency around the world, providing useful data that are used both for research purposes and for decision-making transparency. Calculated every two years since 2006, OBI began to provide interesting comparative evidence relating to information that governments shall make available to the public on how they manage the public finances (www.openbudget index.com).

Corruption control (abbreviated CC) represents the level at which is exercised the public pressure over private gain, including both large scale and lower scale corruption and the submission of the state to the private interests (www.govindicators.org).All nations around the world recorded problems relating to budgetary transparency and corruption, as it is observed in the data reported by the Open Budget Index 2012 and Corruption control 2012, no country presents a maximum score, which means that any country is not totally transparent and clean.

4. Methodology

The research is focusing on a comparative analysis using a statistical-econometric methodology and statistical parameters measuring symmetry, normality of distribution, and the correlation between various statistical data are obtained by the regression function. Data processing for analyzed indicators was conducted though E views 7.

Considering the concepts presented in the introductory part of the paper, we develop a multiple regression model which highlights dependencies between human development index and its influencing factors in the countries which showed common data necessary for our study. We consider three factors of analysis: the human development index, budget transparency and control of corruption, model the following form (2):
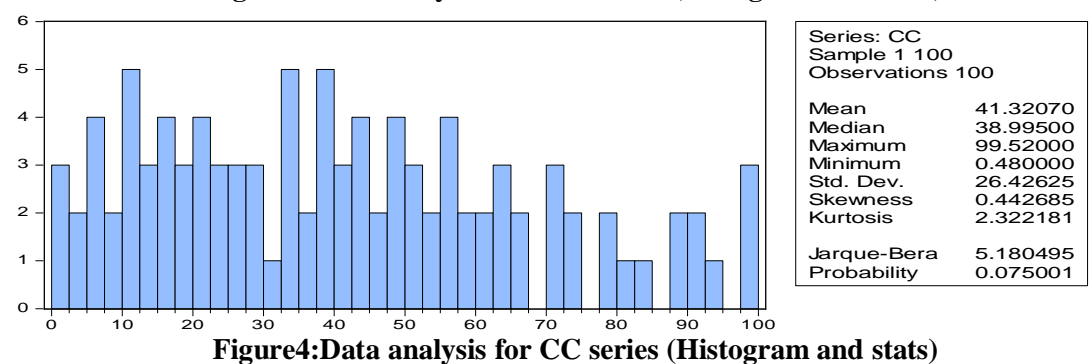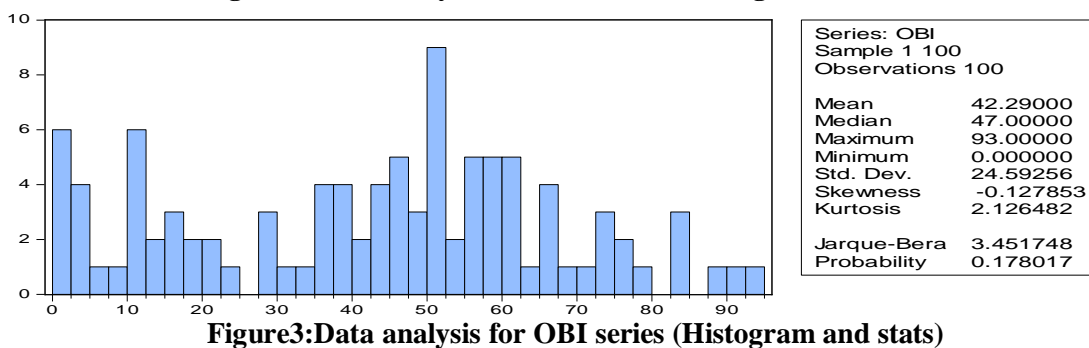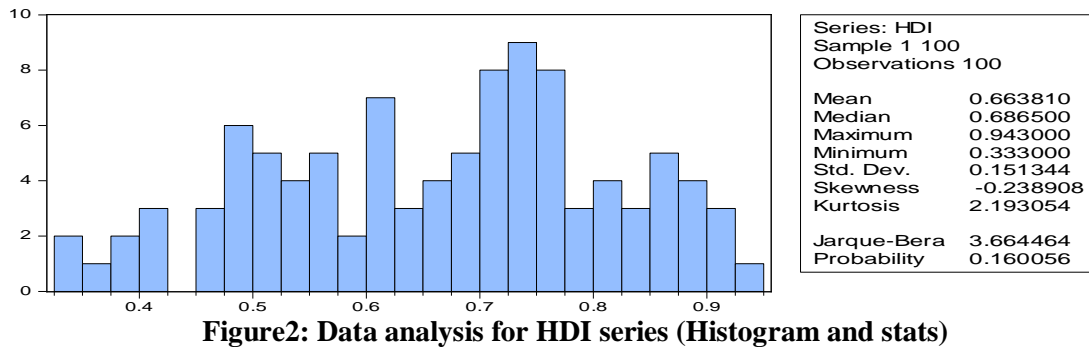
$$y_i = a + b \cdot x_i + c \cdot z_i + \varepsilon_i, i = 1,...,n \ (2)$$

where : y_i represents HDI, x_i represents OBI, z_i represents CC, for years 2012, a, b, c represents regression model parameters, ε is the error of significance (specification), which is a random variable (stochastic) that has certain probabilistic properties, being given by inaccurate relationships between variables (figure6) and n represents is the number of countries under examination (n=100 - only these countries were included in the Open Budget Index, 2012). Data sets required to estimate values of the model are *cross-sectional data*.

5. Descriptive Statistics

Descriptive statistics on the whole data series provides us with an overview of the data set (figures 2, 3, 4).In this model, HDI series has a 0.66 Mean, values ranging between a minimum of 0.33 to a maximum of 0.94. Standard Deviation of 0.15 indicates that the data are homogeneous.

Skewness is -0.23, 2.19 Kurtosis, Jarque-Bera 3.66 indicates departing data against the central value of this series (Figure 2). OBI Series has a Mean 42.29, values ranging between a minimum of 0.00 to a maximum of 93.00. Standard Deviation of 24.59, Skewness is -0.12, Kurtosis 2.12, Jarque-Bera 3.45 (Figure 3).For data series describing the control of corruption, Mean is 41.32, values ranging between a minimum of 0.48 to a maximum of 99.52. Standard Deviation of 26.42, Skewness is 0.44, Kurtosis 2.32, Jarque-Bera 5.18 (Figure 4). We can say that for the three data sets, the indicators showed by Histogram and Stats shows a normal distribution of the series and suggests a range more narrow of values for these data series.

Figure2: Data analysis for HDI series (Histogram and stats)

Figure3:Data analysis for OBI series (Histogram and stats)

Figure4:Data analysis for CC series (Histogram and stats)

Deterministic relationship between the three data series expresses the dependence between the dependent variable HDI and independent variables OBI and CC (Figure 5).
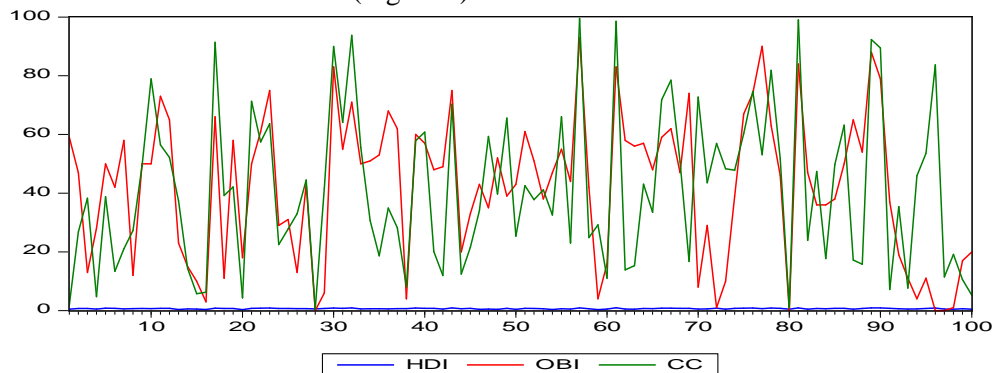

Figure 5: Importance of OBI and CC to determine HDI

Correlation analysis

The deterministic relationship between the three data series expresses dependence between the dependent variable, HDI and independent variables, OBI and CC (Figure6).
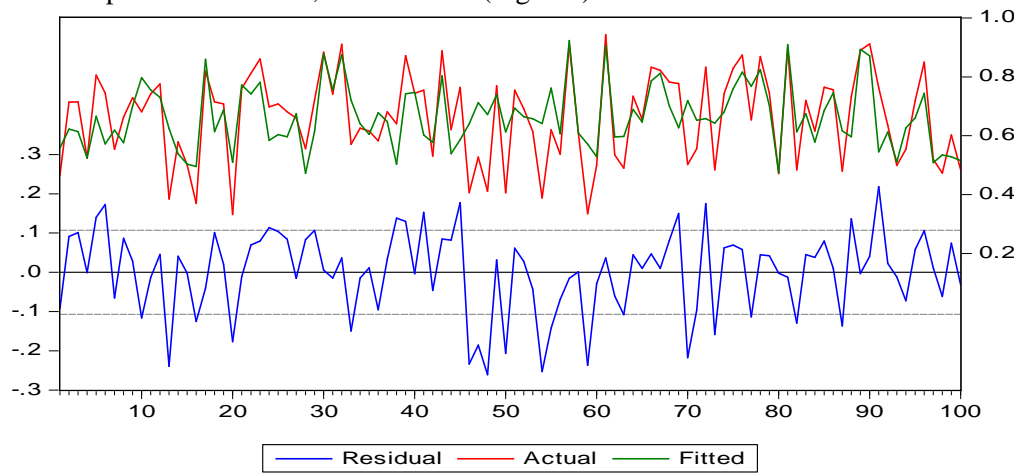

Figure 6: Theactual adjusted values of the series HDI and residues series (Eviews7)

We estimate the parameters by the method of least squares aggregated (Pooled Least Squares) for the proposed model, which quantifies the correlation between the dependent variable (HDI) and independent variables (OBI and CC), we obtain the following form for the regression equation (table 2):

$$HDI = 0.4709 + 0.0013*OBI + 0.0032*CC$$

Table 2: Parameter estimation results of the regression model

Dependent Variable: HDI				
Method: Least Squares				
Date: 2015				
Sample: 1 100				
Included observations: 100				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.470967	0.022937	20.53319	0.0000
OBI	0.001372	0.000516	2.655772	0.0093
CC	0.003263	0.000481	6.790168	0.0000
R-squared	0.509035	Mean dependent var		0.663810
Adjusted R-squared	0.498912	S.D. dependent var		0.151344
S.E. of regression	0.107133	Akaike info criterion		-1.599959
Sum squared resid	1.113306	Schwarz criterion		-1.521804
Log likelihood	82.99794	Hannan-Quinn criter.		-1.568328
F-statistic	50.28510	Durbin-Watson stat		1.852094
Prob(F-statistic)	0.000000			

Statistical tests

Testing the significance of the model parameters

T-Student test probabilities for the independent variables coefficients are below 5%, thus rejecting the null hypothesis that the slope of the regression line is not significantly different from zero, so both exogenous variables exert a significant influence on the dependent variable HDI.

Another test of parameters significance is the test Wald of restrictions on the parameters (table 3) for which we define assumptions:

$$H_0: a_1 + a_2 = 1$$
$$H_1: a_1 + a_2 \neq 1$$

The results suggest rejecting the null hypothesis stated. As for the F-test and Chi-square test we obtain zero values of probabilities, so the parameters are significantly different from 1.

Table 3: Testul Wald

Wald Test:			
Equation: HDI1			
Test Statistic	Value	df	Probability
t-statistic	-2055.802	97	0.0000
F-statistic	4226322.	(1, 97)	0.0000
Chi-square	4226322.	1	0.0000
Null Hypothesis: C(2)+C(3)=1			
Null Hypothesis Summary:			
Normalized Restriction (= 0)		Value	Std. Err.
-1 + C(2) + C(3)		-0.995365	0.000484
Restrictions are linear in coefficients.			

Autocorrelation errors testing

We apply the Durbin-Watson test for testing autocorrelation errors for which we defined two assumptions:
H0: $\varrho = 0$, there is no auto-correlation in the series of residues
H1: $\neq 0$ ϱ series residues present first order autocorrelation

Lower limits and upper limits for DW ($\alpha = 0.01$, $k = 2$) statistics are 1.502 respectively 1.582. We calculate $d_u < DW < 4 - d_l$. and obtain 1.582 <1.852 <2.498. It follows that the null hypothesis is accepted, so there is a no significant linear correlation of first order at residue series level.

Testing Heteroscedasticity

To test that hypothesis on the constancy of residual values variance is respected it was used White test. We use the variant where the squares of residues are estimated based on exogenous variables and their squares. It notes that between model errors there is no heteroscedasticity (table 4).

Table 4: Testul White

Heteroskedasticity Test: White			
F-statistic	2.047976	Prob. F(5,94)	0.0789
Obs*R-squared	9.823379	Prob. Chi-Square(5)	0.0804
Scaled explained SS	8.961449	Prob. Chi-Square(5)	0.1106
Test Equation:			
Dependent Variable: RESID^2			
Method: Least Squares			
Date: 2015			
Sample: 1 100			
Included observations: 100			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.008230	0.005170	1.591794	0.1148
OBI	7.57E-05	0.000242	0.312970	0.7550
OBI^2	8.88E-07	3.23E-06	0.275409	0.7836
OBI*CC	-5.32E-06	3.08E-06	-1.727454	0.0874
CC	0.000228	0.000224	1.018229	0.3112
CC^2	-3.00E-07	2.92E-06	-0.102781	0.9184
R-squared	0.098234	Mean dependent var		0.011133
Adjusted R-squared	0.050268	S.D. dependent var		0.015581
S.E. of regression	0.015184	Akaike info criterion		-5.478962
Sum squared resid	0.021673	Schwarz criterion		-5.322652
Log likelihood	279.9481	Hannan-Quinn criter.		-5.415701
F-statistic	2.047976	Durbin-Watson stat		1.943909
Prob(F-statistic)	0.078932			

5. Empirical results

The results obtained confirm the hypothesis we mentioned in our research and we interpret the regression equation this way:

➢ As we expected, the value of the obtained *CC* coefficient is statistically significant and result in a positive impact that an increase of 1 unit of it leads to an increase of 0.32 unit of the *HDI indicator*.

➢ The coefficient obtained for the variable *OBI* is a statistically significant one and indicates a positive impact, but lower than CC. An increase of 1 unit to OBI causes an increase of only 0.13 unit of the *HDI indicator*.

The validity of this model is sustained on account of low values of probability, (all variables are significant at a 95% threshold), the value of the standard error, applied statistical tests, as well on the basis of the determining report which lies at 50.90%. The value of the free term reveals that the variables that were not included in the econometric model, as a whole, have a positive impact on the HDI evolution.

The statistical relationship between endogenous and exogenous variables is quite strong. In other words, 50.90% of the HDI indicator variation is explained by the independent variables (OBI and CC), which have a significant positive influence on the HDI indicator.

In order to perform a forecast of the HDI variable, we resized the data series using a sample of observations from 1 to 95, from observation 96 considering the forecast (figure 7).
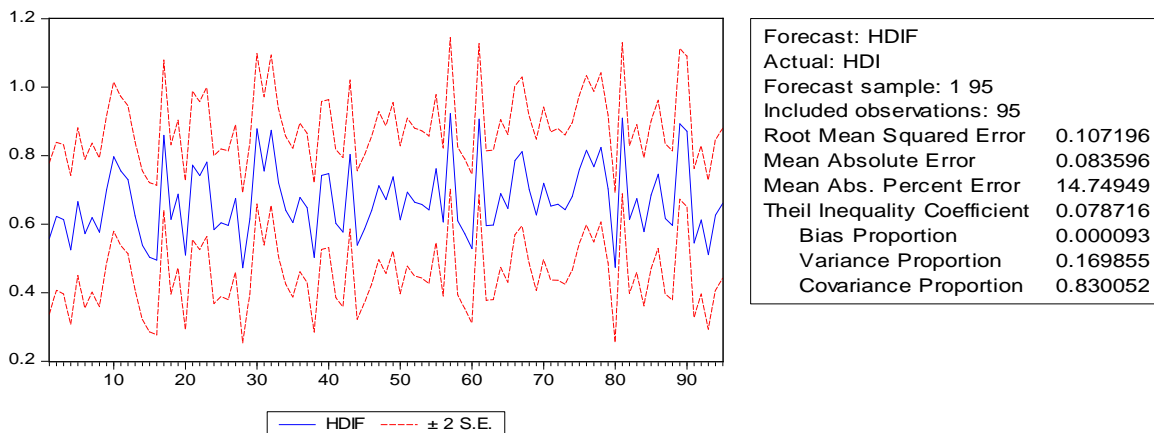

Figure 7: Forecasts for the HDI variable based on the present values

The forecast is accurate enough because the value of function loss (RMSE) is low (0.107), given that the sample considered is relatively small and Theil coefficient is less than 1 (0.078). The positive relationship between the components of studied model is strengthened by this forecast and useful when we are interested by the evolution of an indicator in a given context.

Concluding remarks

Through this research, we tried to bring a contribution to the empirical studies carried out on the sustainable development, through modeling the synthetic factors of growth strategy at the human development level. In other words, we proposed a model which has examined the relationship between human development, budgetary transparency and corruption control, with the help of which we promote the implementation of policies and practices to increase the budgetary transparency and to reduce corruption.

This empirical analysis was based on a multiple regression model for 100 countries (only these countries were included in the Open Budget Index 2012), that are in all stages of human development (very high human development, high human development, medium human development, low human development) and whose data are related to the year 2012 and we noticed incontrovertible evidences between human development and synthetic factors.

All countries have been heavily affected during the crisis, the economic performance not being what was expected. Our research supports that countries facing increasing transparency and decreasing corruption shall ensure for themselves an increase in the level of human development, an improvement in the quality of government's policies as well as providing vital information to the public.

These countries were able to redress themselves by adopting measures that have led to the equilibrium and continued human development: increasing employment, reducing unemployment, encouraging exports, decreasing imports, reducing government's spending, lowering the rates of savings and decreasing corruption. In other countries it registers a progress in the adjustment of the internal and external balances but their economies are still marked by a strong incertitude. In order to stimulate economic growth, these should encourage the reduction of unemployment rate and to continue to grant state aid towards investment in the economy, reducing corruption, making efficient the court proceedings, increasing the budgetary transparency. All these measures are envisaged to increase the human development-health, education, culture, security, transparency and, by default, sustainable governmental programs.

Evaluation of the results could serve as a guideline for governments and relevant ministries to investigate the effects of the adopted strategies for human development and for improving the budgetary policies at national level, through the direct contribution to the budgetary transparency and to the optimization of corruption control in all countries, regardless of their level of human development.

Therefore, human development should be the first priority in government programs of the countries, particularly in the developing countries and least developed countries, but also for organizations that can effectively help these countries to sustainable develop by globalization process. To achieve these objectives, politicians should invest in education and pursue key indicators of sustainability over time.

Acknowledgement

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