RESEARCH ARTICLE

CORRUPTION AND ECONOMIC DEVELOPMENT IN ALBANIA

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Abstract
As a post-communist country Albania has faced lots of difficulties in the way of constructing and implementing new system through democracy. In order to provide peace, stabilized development, integration and economic growth Albania must design a road path of “Corruption fight”. The aim of this paper is to present a clear view of effects over economic development and stabilization, all these figured out by Albania example. The model is designed by interacting the corruption index’s effects on economic growth of Albania. The empirical study is conducted through econometric model (Multiple Regression) having data from 1980-2010. The study is combined of two regression analysis; the first one is to perceive the relationship between corruption index, population growth, Per capita income, unemployment rate and HDI. The second regression is derived to see the unite point of these component effecting the real economic growth rate of one country more precisely illustrated by Albania case. The last part represents the conclusion and possible recommendations indicating the prospective of Albanian Economy under such influences of corruption and other indexes.

Keywords: Corruption, Economic Growth, Stability, Econometric Model.

Introduction
Corruption as phenomenon dates in early stages of human development. It can be true that ages before the humans weren’t aware of this phenomenon’s name but for sure they were aware of its existence. With or without name always corruption is there until the humanity will stop of being subjective. The roots of corruptions are so deeply well positioned that generally needs centuries to change the nation’s perception of doing things. It is seen the trend of what is called the shortcut way when people choose types of corruption as mean of choice, instead of doing things legally and right. It can be raised the fact of relativity of right because what is right for one it is not for the other, but about what is legal is seen that worldwide through international laws the legislations condemn these “shortcut ways”. This phenomenon’s mitochondrion is found in humans’ psychology, ego and imagination and is transmitted as a fast solution in means of practice. Corruption possesses volatility spillover effect that spreads its palm in everything and everybody. The existence of solution, an antibiotic for such “illness”, is what zoom this phenomenon. Accordingly if everybody within one society or in the entire world is corrupted then this phenomenon would be just like the mother language with accents. Based on laws of physics, the lack of friction forces let the object continue its road. The same would happen in terms of corruption if those friction forces wouldn’t exist and that could be the way an economy can somehow be efficient due to same way of doing things. It’s true that a priory it would empower the rule of jungle but the solution would be again corruption. So theoretically, there would be approximately no harms because as rules of math say “the same signs in opposite sides cancel each other”. For this there are researchers that didn’t denied that corruption may have played a positive role in a very particular time in particular countries, and the main findings of the empirical literature claim that corruption is common and universal (AIDT, 2003; Svensson, 2005). The whole difficulty doesn’t stand in the fact whether corruption exist or not, but stands in its power. It is for sure that it isn’t an exogenous phenomenon because it is born and consolidated.
within humans, so basically it is an endogenous\textsuperscript{1} phenomenon. What we basically do is taking of a part of our rights and funding a bigger power that leads us. Corruption is the same with that guy that we give the power by desirable voting and later on we are under its regime.

Also it should be mentioned that corruption always has been an issue of different authors since ever. Basically according to (Mauro 1997) corruption is a universal problem. It can be seen in everywhere in countries and nation in various size and shapes. Some others such as, Cheung (1996) doesn’t classify it as phenomenon by stating that “It is as old as government itself”, but indeed that is as old as humanity. Kautila (IV century BC) stated in economic policy and military strategy that corruption is very year empowering its effect. In recent years various economists and researchers have seen an interest in studying the phenomenon of corruption and the impact that it has on the economy of a country. There are a range of models that attempt to identify its causes, but its empirical analysis is complicated. These complications are due to the difficulty of obtaining data and also the complexity of the evaluation variables involved. So the main issue in this paper is to see how Albania is affected by corruption.

As a post-communist country Albania has faced lots of difficulties in the way of constructing and implementing new system through democracy. After the collapse of around half century of dictatorial system the Albania road to integration face harshly the corruption bomb. It is true that due to historical changes everybody tried to find a gate and escape from long term isolation. After these shocking waves of massive emigration the corruption flourished since people didn’t know how to respond to this transformation. The battle starts in moment when Albania tries to follow the mother model that always gave the direction “WEST”. It doesn’t mean that corruption in West corruption is inexistent; it does exist but not as in Albania that possesses the crown. From the prospective of Albania the European Union (EU) has been the ideal model of conducting the democracy and respecting the human rights. In order to provide peace, stabilized development, integration and economic growth Albania must design a road path “Corruption fight”. EU must design a road path for these countries such by providing excellence guide and consultancy. Albania is one of these Balkan countries that offer a dynamic nature of such problems.

**Corruption Definition and Types of Corruption**

According to philosophy, and all other areas of study or moral thoughts, corruption is psychic or ethical dirtiness or nonconformity towards ideal. Corruption can contain many events such as bribery and embezzlement. The meaning of the word “corrupt”, comes from Latin “corruptus”, denoting the misuse or destroy. Today is describes as illegal behavior of a power or a party through means of dishonesty, immoral, or discordant with ethical standards. Corruption is often consequences of benefaction and is linked with bribery. According to Michael Johnston (2008) there are several types of corruption: Systemic Corruption, Sporadic (individual) corruption, Political (Grand) corruption, Grand corruption, Petty Corruption.

**Economic Background of Albania\textsuperscript{2}**

Albania, previously a communist country, made a tough transition and ongoing one, to another system as open-market economy. Macroeconomic growth averaged around 6% from 2004-2008, but dropped to about 3% in 2009-2011, and 0.5% in 2012. Inflation is considered as low and stable. Lately Albania implemented a fiscal reform platform intended to diminish the big gray economy and attracting more foreign investment. Remittances, an important substance for economic growth decreased from 12-15% of GDP before the 2008 financial crisis to 8% of GDP in 2010, mostly from Albanians living in Greece and Italy. The agricultural sector, which has half of employment but just one-fifth of GDP, is limited mainly to small family actions and maintenance farming due to lots of reasons such as: absence of modern tools, problems of property rights etc. Energy shortages relies on hydropower since 98% of the electrical power is produced in Albania. FDI is between the lowest in the region, but it is seen that the government has designed an ambitious program to progress the business

\textsuperscript{1} Endogenous refers to an action or object coming from inside a system.

\textsuperscript{2} Source: Index Mundi
environment through fiscal and legislative adjustments. Helped by EU funds, the government is trying to develop the infrastructure. The challenges of Albania include also the rise of public debt, exceeding its limit of 60% of GDP in 2012. Since important components of economy of Albania such as trades, remittance and banking sector is done mostly with Greece and Italy then the effect of global financial sliced down the economy.

Nature of corruption in Albania- “Everybody knows everybody”

Corruption is one of those phenomena that changes characteristic when establishes within one place. So it does possess the ability of naturalization. This phenomenon in Albania had become more visible after 1990s. While studying the relationship of corruption and Albania, there are seen characteristics that fit to the Albanians’ nature.

The biggest root of corruption in Albania is family. The families in Albania do own the biggest advantage that is lobbed today worldwide, “the network”. According to me the network and corruption have direct relationship. So this fact over speeds the action of corruption benefiting generally from good intention that Albanians are used to do. This is linked also with my theory that as long as humans are subjective the corruption will be there. “Everybody knows everybody” is the accelerator of Albanian nature of corruption.

Another factor is the population number. Albania is characterized of a small population number that basically it becomes a collaborator of corruption. Albanians are considered as persons that generally help each other in all means; this may be due to historical thunders that they had to pass. It is a difficult road to overtake this instinct well established within our perception.

The stubbornness and the ego of Albanians is the following factor. Being pressured for around 50 years we collected inside lot of feelings that made us look just above to reach the objectives in any way possible. Better life conditions. Some of us see corruption as a liquidity generator that circulates money and may provide luxuries when possessing power of information and network. So who pay more gets more. Actually Corruption has been a fact of life of ordinary citizens alike in the history of independent Albania during the Ottoman occupation. Theoretically any “advice” reception in principle is considered a form of corruption. "Bribe" - which have a Turkish origin.

Effects of corruption on Economic Development

The effect of corruption on economy has 2 sided effect. There are scholars advocating that it has positive impact on economy there are other claiming the contrary. Ehrlich and Lui (1999), supports the argument that human capital is one of the main tools that transmits the impact of corruption on economic growth. Their argument is that bureaucratic power gained through economic bribery corruption, causes, individuals have an incentive to compete more for these countries bureaucratic. This will lead to capital accumulation of political capital, reducing capital investment that will be used. The relationship between corruption and economic growth is analyzed as a product of competition between economic growth and productive investment.

Some economists say that corruption can function as a second choice for the best market distortions imposed by government procedures and policies at least in the short term. In the long term, however, corruption itself produces further market distortions and reduce market efficiency. In favor of this arguments stands Louis (1996) advocating that corruption has two effects: (i) a positive impact in short run and negative impact in long run.

Corruption has a negative impact on economic growth, because of its negative effects on property rights enforcement, leading to barriers to conducting business, to have innovation and technology transfer. According (Mijiyawa, 2008) by securing the property and agreement laws it will provide a lower costs for investors and allow the private sector to keep their profits, will bring sustainable economic growth. Legal certainty increases private investment, which endorses a new technology and also increases productivity. These in turn will increase the competitiveness necessary for economic growth. In case of legal guarantees lack the corruption flourishes, and could slow private investment and technological transfers and pull down the growth rate.

Another negative effect of corruption is directly due to benefaction, which reduces the effectiveness of official election and lowers the economic growth. The results worked by (Bates and Hoeffler, 2006) indicates an efficient trade
between public good provision and ethical behavior. Finally, corruption can edge the degree of openness of a country's trade and diminish the inflows of foreign direct investment (FDI), and consequently slower the growth. This idea was worked by (Pellegrini and Gerlagh 2004) where it was conclude that the effects of corruption on economic growth are two: direct and indirect impact through: investment in education, openness and political stability.

**Corruption and Economic Development: Regression Analysis**

**Introduction of the Model**

This project is designed research about the relationship between two or more quantitative variables in order to build a bridge between corruption index and other independent variables. Also this project is includes another regression to see the impact of all these variables on the GDP growth rate. In this project there are used time series data ranging from a period of 1980-2010, a period of 30 years. There exist some limitation of data is due to the fact of irregular and not completed data because of internal and external factors that affect the overall performance of Albania’s economy and politics in the past years. The data are expressed in yearly basis and the analysis is based on a multiple linear regression. The model is premeditated by the author.

**Data and Methodology**

<table>
<thead>
<tr>
<th>1) Mathematical formula of the 1st regression</th>
<th>2) Mathematical formula of the 2nd regression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corr=F(α,P, β IP,φ U, μ H, G)</td>
<td>GDP=F(β1 C, β2 P, β3 IP, β4 U, β5 H, β6 G)</td>
</tr>
<tr>
<td>Where:</td>
<td>Where:</td>
</tr>
<tr>
<td>Corr =Corruption</td>
<td>C =Corruption</td>
</tr>
<tr>
<td>P= Population growth</td>
<td>P= Population growth</td>
</tr>
<tr>
<td>IP= Per capita income growth</td>
<td>IP= Per capita income growth</td>
</tr>
<tr>
<td>U= Unemployment rate</td>
<td>U= Unemployment rate</td>
</tr>
<tr>
<td>H= HDI</td>
<td>H= HDI</td>
</tr>
<tr>
<td>G= Governmental Spending</td>
<td>G= Governmental Spending</td>
</tr>
<tr>
<td>*α,β,φ, μ, are the coefficient</td>
<td>*β1, β2, β3, β4, β5, β6 are the coefficient</td>
</tr>
</tbody>
</table>

The equation is simply a hypothesized identity and the aim of this regression is to see whether the independent variables such as population growth, Per capita income, unemployment rate and HDI have any impact on corruption. After the regression done to see the impact on corruption, this regression is also a multiple line regression but this time the dependent variable is GDP real growth rate expressed on terms of Corruption index, population growth, Per capita income real growth, unemployment rate, HDI index and also governmental spending. The aim of this regression is to see the influence of such variables on GDP real growth rate and special concern on corruption influence.

**Specification of the Econometric model.**

<table>
<thead>
<tr>
<th>x3 = Unemployment rate</th>
<th>x4 = Unemployment rate</th>
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<tbody>
<tr>
<td>x4 = HDI</td>
<td>x5 = HDI</td>
</tr>
<tr>
<td>x5 = Governmental Spending</td>
<td>x6 = Governmental Spending</td>
</tr>
<tr>
<td>u=Error Term</td>
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</table>

The next step is to develop an empirical model capable of testing the hypothesis. In particular:

<table>
<thead>
<tr>
<th>y = β0 + β1 x1 + β2 x2 + β3 x3 + β4 x4 + β5 x5 + u</th>
<th>y = β0 + β1 x1 + β2 x2 + β3 x3 + β4 x4 + β5 x5 + β6 x6 + u</th>
</tr>
</thead>
<tbody>
<tr>
<td>y= Corruption</td>
<td>y= GDP real growth rate</td>
</tr>
<tr>
<td>x1 = Population growth</td>
<td>x1= Population growth</td>
</tr>
<tr>
<td>x2 = Per capita income growth</td>
<td>x2= Corruption</td>
</tr>
<tr>
<td></td>
<td>x3 = Per capita income growth</td>
</tr>
</tbody>
</table>

**Development of Testable Hypothesis**

From the hypothesized formula above the following testable hypothesis can be raised for the
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1st regression:
Ho: Impact of variables=0 or \( \beta_1 = 0 \), \( \beta_2 = 0 \), \( \beta_3 = 0 \), \( \beta_4 = 0 \)
H1: Ho it is not true
So this is a “Multiple Hypothesis”, with “more general restrictions” (Type 6-hypothesis) and in order to test the hypothesis we use the F-statistics with degree of freedom of \( df = q/n-k-l = 4/95 \) at \( \alpha = 0.05 \).

The 2nd regression has nearly the same hypothesis as of:
Ho: Impact of variables=0 or \( \beta_1 = 0 \), \( \beta_4 = 0 \), \( \beta_5 = 0 \)
H1: Ho it is not true

Results
To test the hypothesis, are needed the collected data. This process includes putting in the system all information taken from the resources. By using the e-views the following results are obtained for the 1st econometric model assumed:

The 1st regression
\[
y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + u
\]
The model can be expressed in numbers:
\[
Y = -6.293791 - 0.346150 \times P + 0.008044 \times IP - 0.019067 \times U + 11.60920 \times HDI + 0.021887 \times G
\]

The 2nd Regression
\[
y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + u
\]
The model can be expressed in numbers:
\[
GDP = -1.003194 + 0.024021 \times C + 1.315518 \times P + 0.946060 \times IP + 0.057099 \times U + 0.000497 \times HDI + 0.016398 \times G
\]

So if we analyze the statistics it is seen that this model has around 0.807 R-squared, meaning that this model with those independent variables is explained 80.7% indicating a good correlation.

Another point is the Hypothesis testing. From above table is obtained that F-statistic=26.12819 and from F-distribution table the \( cv^2 \) = 2.70 and accordingly:

From the results is seen that population growth rate and corruption do have negative relationship and as matter of fact statistically is significant due to its p values<0.05. This indicates that if population growth rate increases by 1% it will cause corruption index will to fall down by 34.61%. As the rule of corruption index indicates the smaller index the higher is corruption, the above results show that if population grows also the corruption level increases. This outcome can be interpreted based on the nature of Albania corruption stating that “the networks and everybody knows everybody” collaborate in corruption flourish.

Per capita income growth does have a positive relationship advocating that if income increases there will be a 0.8% increase in corruption index, but statistically is not significant. The same story is also with unemployment rate that shows that if unemployment increases the corruption index decreases. In any case it turned out statistically is not significant. What matters from tables above is what HDI results indicate. Since it is statistically significant, 1% increase in HDI will increase the corruption index by 116%, a huge impact. So as HDI increases the corruption level falls. This outcome can be interpreted as much as humans develop that much they learn “right and legal ways” in order to cooperate and progress in this high tech era. Also another statistically significant variable point out that if 1% increase in governmental spending’s there is an increase of 2% in corruption index. This can be explained that whenever government invest in country it opens bid offers to give the companies the chance to take the tender opening trying to choose the best and efficient one.

So if we analyze the data it is seen that this model has around 0.976 R-squared, meaning that this model with those independent variables is explained 97.86% indicating a good correlation

Another point is the Hypothesis testing. From above table is obtained that F-statistic=183.4429 and from F-distribution table the \( cv^4 \) = 3.09 and

\[\text{Critical value of } df \text{ 3/95 at } \alpha = 0.05\]
accordingly:

What is important here to be emphasized is the relation between corruption index and GDP growth rate. GDP growth rate is the element displaying the economic development, so from the table of outcome it is revealed that if corruption index increases by 1%, the GDP real growth rate will increase by 2%, but it is not statistically significant. So as corruption level decreases the GDP real growth rate increases. This insignificance can be as overstated due to lack of data for Albania, and also due to the credibility of this data. Also the figure below is in compliance with regression results.

Figure 1: The relationship between Corruption and GDP growth rate in Albania

Conclusion

Corruption is a key problem that has a substantial influence on all civilizations and generally creates a problem for the economy. It is supposed as a negative phenomenon for the economy worldwide. The factors affecting corruption index revealed to be population growth, HDI, and governmental spending. Due to lack of data for Albania, and also due to the credibility of these data the effect of corruption on economy turned to be statistically insignificant.

After all the analysis driven is concluded that:

- If population growth rate increases by 1% it will cause corruption index will to fall down by 34.61%. As the rule of corruption index indicates the smaller index the higher is corruption, the above results show that if population grows also the corruption flourishes.
- Since it is statistically significant, 1% increase in HDI will increase the corruption index by 116%, so as HDI increases the corruption level falls.
- If 1% increase in governmental spending’s there is an increase of 2% in corruption index.
- If corruption index increases by 1%, the GDP real growth rate will increase by 2%, but it is not statistically significant. This insignificance can be as overstated due to lack of data for Albania, and also due to the credibility of this data.

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