# Nonlinear Relationship between Globalization and Control of Corruption along with Economic Growth

by

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#### Abstract

In recent decades, trade flows, capital, work force, technology and information have increased between international borders and the globalization has turned to an undeniable process in international economics. Meanwhile, despite the positive aspects of globalization, the critics of globalization opine that the risks and costs of globalization for developing vulnerable economies and the world's impoverished people are high and significant. In this regard, this study by using the data of KOF Economic Institute and the World Bank for 113 different countries during the period 2002-2012, by taking advantage of panel smooth transition regression, and by taking Gross domestic product as transmission variables discusses the nonlinear relationship between research variables. The Results have revealed that globalization in low regime (countries with low GDP) has negative impact whereas in high regime (countries with high GDP) has positive impact. In spite of the fact that in the early stages of growth, control of corruption has a positive impact on economic growth, after a threshold has a negative impact on economic growth.

**Keywords**: Globalization, Corruption, Panel Smooth Transition Model, Economic Growth, Threshold, Economic Convergence

#### 1. Introduction

Today, the term globalization has become a motto in the economies of the whole world. Economic and social development is one of the important issues in the world economies over the past several decades. The concept of globalization refers to the different areas and aspects such as economic, social, and political ones so that the term was introduced in the early 80th century but in the beginning, this term was not defined accurately and was often used in political economy. Although there was no proper definition of globalization, the term globalization noted to the economic convergence of the world through free trade, free flows of finance, as well as the mutual exchange of technology and knowledge. The process of globalization does not only include global trade openness but it contains the development of communication, the globalization of financial

markets, population migration and in general, increased mobility of people, goods, capital and information and ideas. Thus globalization simply means, the national economies movement towards integration (merge or convergence), freedom of trade, financial flows, foreign direct investment and increasing interactions of people in all areas of their life are included. Also the globalization refers to the globalization of production, distribution and marketing of goods and services and it also refers to adopting common policies by countries (Ray<sup>1</sup>, 2012). Globalization is often a process of unification of goods and capital markets around the world that in this process, the international trade barriers and foreign investment are reduced. Globalization can be created with technological progress, in fact, this process reduces transportation costs and improves the flow of information which is possible with economic and political changes based on reducing protectionism, liberalization of foreign investment and immigration laws. In other words, globalization is a process in which national boundaries have no concept and national economies are merged together and culture, technology, governance and production are related with complex relations of mutually interdependence. Of course we should not forget that globalization in addition to creating opportunities for development, can also be associated with challenges and new dangers. Because integration with global markets, leads to increased competition and hence it is not clear whether the economy will benefit significantly from the rapid process of globalization or not? (Gurguland lach<sup>2</sup>, 2014).

This study discusses the relationship between globalization and control of corruption along with economic growth based on the grouping of countries to low-income countries, middle-income and high-income countries using a Panel Smooth Transition model. That's why the most important indicators of globalization including: (economic globalization, political globalization, social globalization) are used. Such an approach would permit us to do various analyses from different aspects of globalization. In this study, the global index calculated by Swiss KOF economic institute<sup>3</sup> is used. Currently, this index is considered as one of the most comprehensive global indices, which has been expanded and developed by Axcel Dreher<sup>4</sup> (2006).

# 2. Literature Review

The topics about the consequences of corruption have created two schools of important thought. Based on one of these schools, corruption is beneficial and leads to economic growth, but in other school, corruption is negative and is considered as an important obstacle in the way of economic growth and modernization.

### 2.1 The first group perspective: the effectiveness of corruption

Fans of school efficiency, such as Leff<sup>5</sup>, Bayley<sup>6</sup> and Huntington With emphasis on ineffectiveness of the laws and institutions in developing countries, recognize the corruption in the public sector as a way to overcome the ineffectiveness of laws and regulations and believe that corruption has the grease role for dry tires of economic and administrative systems of these countries and provides economic growth and investment in these countries, So the fans of effective school of

⁵Leff <sup>6</sup>Bayley

<sup>&</sup>lt;sup>1</sup>Sarbapriya Ray (2012)

<sup>&</sup>lt;sup>2</sup>HenrykGurgul and lukaszlach (2014)

<sup>&</sup>lt;sup>3</sup>Konjunkturforschungsstelle der ETH Zürich

<sup>&</sup>lt;sup>4</sup>Dreher (2006)

corruption, Consider the corruption as a business expense that its benefits is more than its costs in developing countries and is hence more acceptable.

# 2.2 A second group perspective: the ineffectiveness of corruption

Although effective school of corruption had been offered base on some of relatively strong theoretical and empirical arguments, in later years, especially after 1995 a lot of researches in the field of effects of public sector corruption was performed, that their results challenged the arguments of this school and provide the context for the second school presence. Now by discrediting the school of corruption effectiveness in the field of theorizing, several evidences can be found that indicate that the damaging effects of corruption on economic growth and development. The World Bank in 1997 pointed out the corruption as the single greatest obstacle to economic growth and social development. Researches show that high levels of corruption severely reduce the growth rate of gross domestic product (GDP), which is an indicator of economic development. Mauro (1997) in his study on "the impact of corruption on growth, investment and government spending", Shows that 4.2 unit decrease in corruption index (an index that is graded from one to 10) is related to 4 percentage of point increase in capitation growth rate. That means the release of huge resources which can be used in healthier environment for the growth and development of the country. On the other hand, the corruption encountering with attraction level of foreign investment that is the other economic development indicators, will play a role as a deterrent and eerie factor for foreign investors. Recent school scholars have found that high levels of corruption will lead to increased income inequality and poverty through economic growth reduction. Furthermore, research results of researchers who have examined the effect of corruption on macroeconomic variables, indicate the high costs of corruption in the public sector on the economy and welfare of the citizens are another variable of economic development. Although these scholars do not agree on various aspects of corruption and its effects, all emphasize that corruption is caused by poor governance (Ellis<sup>7</sup>, 1998).Globalization is not a purely economic phenomenon, but economy is the most important aspect of it. In other words, the globalization is the most notable distinction of world's yesterday and today economy and the growth and convergence of financial markets, as well as the development of information and communication technology are the main causes of this process in the current era.

As regards with globalization, there are two perspectives:

# Liberalization agreeing perspective:

Fans of this view believe that over the recent decades, globalization has led to GDP growth in the world and foreign investment growth particularly in developing countries has been accelerated. The elimination of trade barriers and capital mobility has led to technological advances and has reduced the costs of transport and communication, which this issue will increase the welfare of society and new economic opportunities as well.

# Liberalization opposing perspective:

This view suggests that globalization is a terrible rule that will target valuable aspects of social, cultural and economic of countries. Fans of this view believe that globalization is useful and inevitable for future economic development, while opponents believe that globalization has increased inequality between countries and jeopardizes their employment, standard of living and culture (Ali Hasanzadeh,2008). The positive effect of trade openness policies through the liberalization of trade,

<sup>&</sup>lt;sup>7</sup>Ellis, 1998

investment and movement of capital between countries, on the growth and Increased Welfare around the world by economic theories such as comparative advantage theory of Ricardo, Heckscher-Ohlin model, Stolper-Samuelson, new trade theory, new model of Krugman theories and the international lending-borrowing model (or basket allocation models) have been supported. (This means that liberalization leads to growth and welfare and it has been proven in the economic theories).In this regard, two models and a theory that have great importance in theoretical economics are: Heckscher Ohlin model and Stolper-Samuelson theorem, which are briefly described below:

Heckscher - Ohlin model as the standard model of international trade, considers the key and determining factor of country's comparative advantage as the relative abundance of production factors. According to this theory, developed countries in their trade with developing countries export goods and services relying upon skilled labor and on the opposite side import goods and services relying upon low skilled labor. In countries with flexible wages, increased trade with developing countries where wages are more rigid and inexorable, opening trade routes with developing countries will lead to a router unemployment (Meschi and Vivarelli<sup>8</sup>, 2009, p. 291).

Stolper-Samuelson theorem states that high tariff or non-tariff protections (such as imposing quotas) will increase the price of domestic goods and subsequently will lead to an increase in the real price of inputs that has a greater contribution in the production of that good. According to this theorem, trade liberalization in each country will increase the demand for manufacturing inputs that are relatively more abundant in the country and consequently its price will increase. Since skilled labors in developed countries and unskilled labors in developing countries are abundant, trade liberalization will lead to an increase in demand and wages of skilled workers in rich countries but in developing countries demand and wages of unskilled workers will rise up. As a result, trade liberalization in developing countries, unlike developed countries, will reduce inequality (Chiquiar<sup>9</sup>, 2008).

Several studies have been conducted in this area that some of the latest studies in the field of corruption and globalization along with economic growth which have been conducted, are discussed briefly in the following.

Barro and Sala-i-Martin (1995), Sachs and Warner (1995), Edwards (1998), Greenaway et al. (1998) Vamvakidis (1998) with cross-sectional regressions for different countries concluded that trade barriers will reduce economic growth. Sachs and Warner (1995)Showed that only countries with open economies experience unconditional economic convergence. Quinn (1997) concluded that in 64 countries between the years 50 to 94, the liberalization of the capital account, is an important factor in economic growth and investment. Frankel and Romer (1999) found a strong and positive relationship between economic growth and trade with the introduction of instrumental variables. Brunner (2003) by developing the method of Frankel and Romer and by estimating the panel, found a positive effect between trade and economic growth. On the contrary, Rodriguez and Rodrik (2003) challenged the previous researches that were based on a strong relationship between trade and economic growth argued that some of the factors affecting economic growth have not been considered in these studies, as well as they refuted the index of trade openness in these studies. Of course, Warner (2002) removed the flaws found by Rodriguez and Rodrik and He concluded that a strong and positive relationship exists between openness and economic growth by adding the new tests and criterias. Vamvakidis (2002) and Clemens and Williamson (2004) Using

<sup>&</sup>lt;sup>8</sup>Meschi&Vivarelli <sup>9</sup>Chiquiar

data from the 1780-2000 and 1865-1950 years concluded that the relationship between trade openness and economic growth is remarkable in recent decades. Stiglitz (2002)by examining the globalization and strategies of World Bank and International Monetary Fund in Washington Consensus concluded that although globalization has a positive effect on economic growth, its adverse effects on income distribution and the environment are greater than its benefits. In this regard it is worth noting that even proponents of globalization such as Blinder (2006) and Summers (2006) and Krugman (2007) have acknowledged that Globalization has some undesirable effects Which leads to increased inequality and insecure. Bhaskara Rao, Krishna Chaitanya Vadlamannati (2010) by determining the correlation between kof globalization and economic growth in the 21 least developed African countries concluded that Globalization has a weak impact but significant impact on economic growth in the countries listed. Sarbapriya Ray (2012) Using Granger causality and Johansen test for India concluded that there is the reciprocal relationship between economic growth and globalization in India In such a way that private investors. Commercial freedom and human development index have a significant and positive impact on economic growth but the globalization of financial variables (entry and exit of capital) have negative impact but meaningless on economic growth.

Nuno Carlos (2012) using generalized method of moments (GMM) concluded that globalization has a positive and significant impact on economic growth. Henryk Gurgul and lukaszlach (2014) During the period (1990-2010) in the countries of Central and Eastern Europe, studied the relationship between globalization and economic growth, meanwhile introducing the KOF index using various indicators of globalization (economic, political and social) concluded that there is a significant and positive relationship between the three criteria listed and economic growth. Aidt et al. (2008) Using data of short-term period (1995-2000) and relatively long-term period (1970-2000), using a threshold model and by defining two different governmental regimes (regime with high quality institutions and regime with low quality institutions) have examined the impact of corruption on economic growth and concluded that corruption in regime with high quality institutions has a negative impact on economic growth and in regime with poor quality institutions does not have a significant effect on economic growth. Campos et al. (2010), with total of 460 experimental estimates, examined the effect of corruption on economic growth in the 41 studies and concluded that 32% of estimates show significant and negative impact of corruption on economic growth and in 62% of estimates, corruption has no significant effect on economic growth and 6% of estimates represent a significant and positive impact of corruption on economic growth. Likewise in the countries of MENA (Middle East and North Africa) corruption has a negative impact on economic growth and in Asian countries (except the Middle East) corruption has a positive impact on economic growth. Swaleheen (2011) during the period (1984-2010) using a dynamic panel model (GMM) has examined the relationship between corruption and economic growth, concluded that there is a nonlinear relationship between corruption and economic growth. Saha and Mallik (2012) During the period (1984-2009) using a dynamic panel model for 150 countries have studied the effects of corruption on economic growth in the framework of a non-linear model and concluded that corruption affects economic growth but these effects are nonlinear So that corruption do not reduce economic growth in all countries and in countries having low levels of corruption, corruption leads to economic growth.

#### 3. The introduction of model, data and research method:

### 3.1 Introduction of model, variable and data:

Based on the theories and studies done on the effects of globalization and control of corruption on economic growth, experimental model representing the relationship between globalization and corruption along with economic growth with the presence of variables affecting on growth, is clarified as follows.

### $LGDP_{it} = \mu_i + \beta_0 + \beta_1 LLAB_{it} + \beta_2 LKAP_{it} + \beta_3 ECO_{it} + \beta_4 CORR_{it}(1)$

Where LGDP is the logarithm of GDP at constant prices of 2005,LLAB is the logarithm of workforce, LKAP is the logarithm of gross fixed capital formation at constant prices of 2005, ECO is the index of economic globalization of KOF, CORR is the corruption control index. It should be noted that, Panel Smooth Transition model is conducted using data related to 113 different countries during the period of (2002-2012) in order to estimate the model. As well as, the data related to GDP (gross domestic product) variables, work force, capital, and control of corruption from the World Bank, also data related to the index of economic globalization have been extracted from KOF Institute site.

### 3.2 Methodology

PSTR model with two extreme regimes and a transition function occurs as follows :( following Gonzalez et al. 2005)

$$y_{it} - v_i + A_1 x_{it} + A_2 x_{it} F(T_{it}; y, c) + u_{it}, \qquad i - 1, \dots, N , l - 1, \dots, T$$
(2)

Where  $iny_{it}$  is the dependent variable,  $x_{it}$  Vector of exogenous variables,  $v_i$  fixed effects of sections and  $n_{it}$  is the error term that it is assumed *i. i. d.*  $N(0, \sigma_s^2)$ . Transition function  $F(T_{it}; \gamma, \sigma)$  is a continuous function and bounded between zero and one that is determined by the value of the threshold variable and to comply with Gonzalez et al (2005) is stated logistically as below:

$$F(T_{it}; \gamma, c) = \left[1 + \exp(-\gamma \prod_{j=1}^{m} (T_{it} - c_j))\right]^{-1}, \gamma > 0, \ c_1 \le c_2 \le \dots, \le c_m(3)$$

In this function,  $\gamma$  is the slope parameter and represents the speed of adjustment from one regime to another regime and  $T_{it}$  is threshold or transmission variable which can be selected between explanatory variables, pause of the dependent variable, or any other variable outside the model which in terms of theoretical studies related to the model being studied and causes a nonlinear relationship. Also, well as  $c = (c_1, \dots, c_m)^r$  is an m-dimensional vector of thresholds parameters or places of regime change occurrence. It should be noted that transmission function typically has a (m = 1) or two (m = 2) threshold. Thus with the assumption of m=1, there is a transmission function with two extreme regimes, Thus, with tending the slope parameter towards infinity, PSTR model Becomes to two panel threshold regime model (PTR) of Hansen (1999), So that if  $T_{it>c}$ , transmission function gets numeric value 1 and if  $T_{it<c}$ , transmission function with two extreme regimes, so that with tending the slope parameter ( $\gamma$ ) towards infinity, PSTR model Becomes to the slope parameter ( $\gamma$ ) towards infinity, PSTR model Becomes to the slope parameter ( $\gamma$ ) towards infinity, PSTR model Becomes to three panel threshold regime model that two regimes in proportion to its external values are similar and is different from the regime with its intermediate values. Finally, when the slope parameter ( $\gamma$ ) tends to zero and by existence any number of m, PSTR model decreases to a linear or homogeneous regression with fixed

effects. With respect to the above mentioned points, in the PSTR model, estimated coefficients according to the observations of transmission variable and slope parameter continuously Change between two extreme states F = 0 and F = 1 that these two modes of extreme are explained as follows: (Thanh, 2015).

$$y_{it} = \begin{cases} \mu_i + A_1 x_{it} + u_{it} & F = 0\\ \mu_i + (A_1 + A_2) x_{it} + u_{it} & F = 1 \end{cases} (4)$$

# 4. Research findings Expressed the model used as Pstar Model

To investigate the relationship between globalization and control of corruption, two regime PSTR models are explained with a transfer function is expressed as follows:

$$\begin{split} lGDP_{it} &= \mu_i + \alpha_0 LLAB_{it} + \beta_0 LKAP_{it} + \delta_0 ECO_{it} + \theta_0 Corr_{it} \\ &+ [\alpha_1 LLAB_{it} + \beta_1 LKAP_{it} + \delta_1 ECO_{it} + \theta_1 Corr_{it}]g(q_{it};\gamma,c) + s_{it} \end{split}$$

Variable with intercept and With intercept and without Trend Trend  $1/07^{*}$ LGDP -0/915\* -1/07\* 4/24\* LLAB 2/94\* LKAP 2/52\* CORR -2/44\* -0/33 Eco 3/85\* 1/85\*

 Table 1 Test Results of Panel Unit Root - KPSS FISHER (for the Data of 113 Countries)

Table 2 Test Results of Shin Boys Panel Unit Root for the Data for 113 Countries

variable	with intercept and	With intercept and		
	Trend	without Trend		
LGDP	344*	-203*		
LLAB	4/51*	31/18**		
LKAP	1424*	14/49*		
CORR	538*	493*		
Eco	412*	128*		

The obtained results for the data of 113 different countries in Tables 1 and 2 represent the stability of all the research variables<sup>10</sup>.

Obtained estimated results of basic PSTR model with two regimes are reported in Table 3<sup>11</sup>. Slope parameter that represents the speed of transition from one regime to another regime is estimated equivalent to 12/08 and threshold value of logarithm of GDP is also 20/22. The threshold

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<sup>&</sup>lt;sup>10</sup> \*,\*\*,\*\*\* are the significant levels of 1, 5, 10 percentrespectively.

<sup>&</sup>lt;sup>11</sup>The obtained results of the linearity tests and lack of non-linear relationship in the reminder of the model and determining testof regime number showed that the optimal model used, has a transfer function and a threshold.

is indeed a turning point and distinguishes two expressed regimes in PSTR model that according to the estimated slope parameter and amounts of transmission variable (logarithm of GDP), the estimated coefficients of model change from one regime to another regime. In the first regime means the linear part of PSTR model where the amount of transfer function is considered as zero, it should be noted that the zero regime is a regime that gross domestic product contains a small amount, on the other hand, one regime is a regime that GDP has a great value, In other words, with the transition from the zero regime to regime of one, GDP increases, in general, the regime of zero, represents countries with low per capita income and the two regime shows high-income and medium-sized countries.

### A: Elasticity of GDP to work force and capital:

According to the results of estimated model, GDP sensitivity decreases by moving from zero regime to one regime, (moving from countries with low per capita income to high per capita income countries) So that the numerical value of this amount has been reduced from 25% to 12%. On the other hand the sensitivity of GDP has increased by moving from zero regime to one regime (moving from countries with low per capita income to countries with high per capita income), So that the numerical value of this amount has percent to 73 percent.

# **B:** The impact of globalization on GDP:

The results of table 3 shows that by moving from zero regime to one regime, the impact of globalization has increased and has changed direction, To be more precise, the numerical value of the globalization coefficient (-0/0033) has increased and shifted to the numerical value of 0/063 by moving from countries with low per capita income to the countries with high per capita income. In general, the impact of globalization on countries with low per capita income and the countries with high per capita income is respectively negative and significant, positive and significant.

# **C:** The impact of controlling corruption on GDP:

Results of table 3 shows that by moving from zero regime to one regime, the effect of controlling corruption is reduced and shifted, To be more precise, the numerical value of controlling corruption (-0/038) has decreased and shifted to the numerical value of 0/001 by moving from countries with low per capita income to the countries with high per capita income. In general, the impact of controlling corruption on countries with low per capita income and the countries with high per capita income is respectively positive and significant, negative and significant.

Coefficients of <b>LLAB</b>		Coefficients of LKAP			Coefficients of ECO			
α <sub>0</sub>	0/2551 (2/11)	β <sub>o</sub>	0/4829	(4/11)	${\mathcal S}_{_{\mathbf G}}$	-0/0033	(-2/02)	
α1	-0/1351 (1/96)	β <sub>1</sub>	0/2532	(8/98)	$\delta_1$	0/0663	(4/26)	
Coefficients of CORR								
		θο	0/0038	(3/17)				
		$\theta_1$	-0/0048	(2/98)				
The first regime $G(q_{it}; \gamma, c) = 0$								
$LGDP_{tc} = \mu_{1} + 0.2551  LLAB_{tc} + 0.4829  LKAP_{tc} - 0.0033  ECO_{tc} + 0.0038  CORR_{tc}$								
The second regime $G(q_{ic}; \gamma, c) = 1$								
$LGDP_{it} = \mu_i + 0.12 \ LLAB_{it} + 0.7361 \ LKAP_{it} + 0.063 \ ECO_{it} - 0.001 \ CORR_{it}$								
$\gamma = 12.08$ $c = 20.22$								

Table 3 The Estimated Results of the Model Used, Logarithm Transmission Variable of GDP LGDP

Source: The research results (using software Matlab)

Note: The amounts in parentheses indicate t-statistics.  $\gamma$  and c represent the slope parameter and threshold respectively.

# Conclusion

In order to examine the effect of controlling corruption and economic globalization on economic growth using a panel smooth transition regression, the relationship between the studying variables for the period of (2002-2012) has been investigated Using annual data of 113 different countries (including countries with high per capita income, middle-income countries and countries with low per capita incomes). The results of the model estimates revealed that if the GDP entered as a transmission variable to the model, there is no need to classify countries into countries with high per capita income and low per capita income, so one criticism of the linear model in this pattern was corrected. On the other hand, the threshold value and transmission slope parameter were extracted from the inside of the model. So that the elasticity of GDP compared to the work force decreases by moving from zero regime to one regime (moving from countries with low per capita income to high per capita income countries) in a way that the numerical value of this amount has been reduced from 25% to 12%. On the other hand, the sensitivity of the GDP compared to capital has increased by moving from zero regime to one regime (moving from countries with low per capita income to high per capita income countries), So that the numerical value of this amount has increased from 48 percent to 73 percent. On the other hand, by moving from zero regime to one regime, the impact of economic globalization has increased and the direction has been changed, more precisely, numerical value of the globalization coefficient (-0/0033) by moving from countries with low per capita income to the countries with high per capita income increased to the numerical value of 0/063 and has shifted. In general, the impacts of economic globalization in countries with low per capita income and in countries with high per capita income are respectively negative and significant, positive and significant.

As well as by moving from zero regime to one regime, the effect of controlling corruption is reduced and shifted, to be more precisely, the numerical value of the corruption control index (0/038) by moving from countries with low per capita income to the countries with high per capita income reduced to the numerical value of -0/001 and has shifted. In general, the effect of controlling corruption in countries with low per capita income and high per capita income countries are positive and negative respectively. In fact, the existence of such a relationship between the control of

corruption or in other words the corruption along with economic growth can be examined from different directions. In fact, most researchers believe the negative and linear impact between corruption and economic growth that, in this study, this type of relationship was observed for low and middle per capita income countries but in the case of countries with high per capita income, the case is somewhat different. It means that reducing the corruption control (increasing administrative corruption), has (positive) impact on economic growth before reaching the threshold. In fact, the researchers attribute such a relationship to various causes. Saha and Mallik believe that, because the level of corruption is low in developed countries with high per capita income and on the other hand control of corruption is also at a high level and since it is entirely adverse in countries with low per capita income, there is no threshold of controlling corruption For countries with low per capita income, But about the countries with high per capita income, a thresholds for these countries for corruption is understandable. On the other hand, Swaleheen also believes that an increase in corruption and bribery, human capital accumulation and consequently economic growth are influenced. But by taking into account a specified amount of bribes between economies, large countries with low per capita income and low human capital, the impact of corruption on economic growth is negative but in countries with high per capita income, with existence of high human capital, a threshold can be considered for control of corruption. But Mendes and Spulda, believe that the existence of such a non-linear relationship between corruption and economic growth in countries with high per capita income and the existence of non-zero threshold of corruption in these countries can be attributed to three main factors:

A: In countries with high per capita income, the corruption is planned from the government side, so that clerks and governmental employees cannot commit bribery such as employees of low per capita income countries in the form of organized and collectively.

**B**: The positive impact of corruption on economic growth reaching to threshold level is feasible when that the country has good governance. Because in good governance, the aim of the administrative corruption for the government and clerks and governmental employees, is creating the competition between companies with the aim of producing not self-interesting.

C: These two above mentioned items were more concerned with government, whereas the company itself and also individuals in countries with high per capita income and advanced with the aim of producing are more commonly prone to corruption and the corruption that mainly occurs is directed towards the production work but in developing countries and the least developed, the aim of the administrative corruption, is more concerned with personal capital accumulation and non-productive tasks.

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