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## Is Corruption Detrimental for Economic Growth? A Panel Data Analysis of Selected South Asian Economies

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#### ABSTRACT

The debate regarding the influence of corruption on economic growth is increasing. Therefore, this study examines the impacts of corruption on economic growth of developing South Asian Economies between 2002-2017 period. The study uses fixed effects, random effects and robust least square estimators for the empirical estimation. The outcomes show that in developing South Asian countries corruption is working like grease and enhancing the economic growth. Nevertheless, the study based on the theoretical and empirical literature recommends these countries to formulate policies to lower corruption as it harms the institutional quality, adversely affects the investment decisions of the firms, system of meritocracy, and is considered globally as a moral decay of the society. These all in turn, in the long run adversely affects the economic growth.

Key Words: Corruption, Economic growth, South Asia

## Introduction

Corruption is considered as a multifaceted issue which is determined by various factors and asserts different socio-economic consequences. From an illegal payment to an individual, it also includes the malfunctioning of the entire systems either economic or political. It is viewed as a structural issue in an economic and the political set up. Further, it is also linked with the decay of moral values of a society or an individual's. The existing literature defines the corruption as "the misuse of public power and acceptance of bribe by a government servant in return of public resources" (Andvig et al., 2000). Additionally, the literature on corruption views it as a deviant link between the state and society where a state representative takes the advantage of his powers for acquisition of wealth for him (Ahmad, Ullah, & Arfeen, 2012). According to World Bank (1997), "corruption is the misusage of public authority for personal gains". Likewise, Heidenheimer et al., (1989) elaborated corruption as an illegal transformation of collective goods

into private goods through an exchange between the state official and a private agent. In another important study, Warner (1983) has explained three catagories of corruption: (1) public office centred; (2) market centred; (3) public intrest centred. Jain (2001) has also catagoriesd prevailing corruption in democratic societies as grand corruption and beauructatic corruption.

There are different factors which are responsible for the corruption. For example, Aburime (2009) argues that a corrupt political setup is the ultimate consequences of the corrupt society. The corrupt political leaders in that setup endeavours to accumulate the resources through unfair means such as bribe and accelerate the corruption. Likewise, in case of developing countries, prevailing income inequality and poverty are the serious and widespread causes of corruption (Frisch, 1996). In an other influential study, Tanzi (1988) argues that higher taxtaion, red tapism, extensive regulation, poor quality of state institutions, lebel of penalities, less transperency are some of the main causes of corruption. The author further argues that international trade and privatisation have also substantially augmented the instances of corruption, particularly in the developing countries. According to Ugur and Dasgupta (2011), there are three channels though which corrouption influences the economic growth: (1) private investment; (2) government spendings; (3) private spendings for human capital. Shleifer and Vishny (1993) asserted that struture of the government institution and the political process are also the central determinants of the corruption.

In the early literature on corruption, researchers from the fields of public adminstration, sociology and political science have focused on the causes and effects of corruption. Nevertheless, in recent times, economists have also began to measure the economic influences and reasons of corruption as it is theoretically and empirically has been observed to assert substantial influences on the economic growth (Ahmad, Ullah, & Arfeen, 2012). According to World Bank, corruption extensively and adversely affects the economic development through lowering the quality of the state institutions which are essential for the economic growth. Every year, the world losses 5% of its GDP due to corruption. Therefore, over the previous two decades, various studies (see, for example, Mauro, 1995; Mo, 2001; Poirson, 1998; Rose-Ackerman, 1999; Svensson 2005) are conducted and empirically found that couurption causes the eeconomic growth to be reduced.

According to the studies, there are two different impacts of corruption on economic growth. For example, some studies (see, Heckelman & Powell, 2008; Huntington, 1968; Mironov, 2005; Aidt, Dutta & Sena, 2008) are of the view that corruption enhances the economic growth and works as a lubricant for the slow state mechanism. They are of the opinion that the corruption lowers the transaction cost of time, makes it flexible for firms to move smoothly in the existance of several and complex laws and regulations by giving bribe to the higher authorities. In the same way, studies Acemoglu and Verdier, (1998); Klitgaard, (1988) argued that a certain level of corruption exists when an aeconomy is struggling to maximise its national output. Likewise, Tanzi (1988), argued that in case of South eastern countries corruption was higher when these economies were experiencing

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substantial and rapid economic growth untill 1977. For instance, particularly, in case of Indonesia, it was asserted that random corruption could damage the economy more than the institutionalized corruption as the later makes it easy for people to know that where and to whom the bribe is to be paid to get the work done smoothly. Leff (1964) is also of the view that corruption makes the rigid regulations as flexible which are imposed by the government. This as a consequence enhances the investment and efficiency which are essential for economic growth. Hence, in the presence of high regulations and red tape, corruption works as an oil or greese for the state mechanism to operate smoothly. Some other reserchers, Beck & Maher (1986) and Lien (1986) thorugh modeling exhibited that the most competitive firms are in fact able to bribe more than the less competitive firms. Therefore, projects are assigned to the competitive forms and efficiency is increased as a result. In a recent study, Huang, (2016) empirically found that corruption is beneficial for the econoic growth in case of Asia pacific countries.

On the other hand, some researchers are of the view that corruption is determinetal to the economic growth and works as "sand in the wheels". For example, Kaufmann and Wei, (2000) observed that organisations which pay higher bribes, also have to incur higher capital in terms of time used for negotiations with the state officials. This as a result reduces the efficiency and adversely affects the economic growth. In the same way, Mo, (2001) concluded that corruption through political instability seriously and adversaly affects the economic growth. Corruption allocates the productivity of the people to the rent seeking activities by neglecting the productive investment. Moreover, the government officials assign permits and licences to the inefficienct organisation and this causes the economic growth to be reduced in the long run. Mauro, (1995) also asserted that corruption deteriorates the economic development. Farooq, Shahbaz, Arouri, & Teulon, (2013) in a recent empirical study have observed that corruption reduces the economic growth.

The aforementioned debate highlights that the debate regarding the effects of corruption on economic growth are not conclusive and further insights are needed and indespensible. Therefore, this study examines the effects of corruption on the economic growth of five developing South Asian countries namely Pakistan, India, Sri Lanka, Bangladesh and Nepal between 2002-2017 period. These countries have higher corruption levels and at the same time experiencing fluctuationg economic growth. For instance, according to a survey conducted by Transparency International in 2017, India and Pakistan are among the five most corrupted countries in Asia. Moreover, the corruption in Sri Lanka, Nepal and Bangladesh is also high. Hence, it makes it indispensible to conduct an empirical research to evaluate the role of corruption on economic growth of these countries.

## Jahanzeb Khan, Rana M. Adeel-Farooq, Kashif Akram & M. Sharif Abbasi Literature review

The literaure on the effects of corruption and economic growth started to expand since 1990. There are two different major theories regarding the growth consequences of corruption.

Some scholars argue that corruption works as a grease or lubricant For example, Blackburn and Forgues-Puccio, (2009) developed a general equilibrium model to examine the growth impacts of corruption. The study concluded that the countries which have organized and instutionalised corruption coupled with higher research and development experiences corruption to be beneficial for the economic growth. Likewise, Levy (2007) observed that in Georgia, there was a controlled system and free market mechanism was not working. In this scenario, black market activities increased and public used bribery to enhance personal gains. This became a social norm there and positively affected the economic growth too. Similarly, Freckleton, Wright, and Craigwell (2012) discovered that low corruption in developing economies enhances the growth impacts of foreign capital.

Nevertheless, some scholars are of the opinion that it is like sand in the wheels and eventually reduces economic growth by inefficient allocation of resources and opportunities to the less effcient firms. For instance, Baliamoune-lutz, (2009) examined the influnce of corruption on the economic growth of selected African countries. They examined the growth consequences of the corruption through its effects on public and private invesment. The study argues that corruption positively affects the public investment while negatively influences the private invesment. Nevertheless, in both the cases, it deteriorates the economic growth in the African countries. In other studies, Attila, (2013) and Agostino, Dunne, and Pieroni, (2016) observed that corruption causes the economic growth to be reduced and not a beneficial factor for the economic growth. Mauro (1995) argued that corruption lowers the private investment and hence as a consequence adversely affects the economic growth.

## Data and methodology

The current study examines the effects of corruption and along with few other independent variables such as total population, political instability, and trade openness on economic growth of selected South Asian economies namely India, Pakistan, Bangladesh, Sri Lanka, and Nepal covering the period from 2002 to 2017. This study uses "control of corruption" and political stability of World Bank as a proxy to measure the corruption and political stability. In addition, for economic growth , this study uses GDP (constant 2010 \$); for financial development this study uses domestic credit to the private sector by banks (% of GDP); and for the trade openness, trade (% of GDP) is used. The data for all the explanatory and dependent variables have been taken from the world development indicators of the World Bank. Moreover, issue of autocorrelation in the data is

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examined by employing Woolridge (2002) test; heteroscedasticity by employing Breusch-Pagan/Godfrey/Cook-Weisberg test and the problem of multicollinearity is measured by through Variance Inflation Factor (VIF) technique.

This study for the robust outcomes and to resolve the problem of autocorrelation the robust least square (RLS) estimator is used. The study uses the following econometric model:

$$LGDP_{it} = LCor_{it} + LPol_{it} + LTOP_{it} + LFD_{it} + \varepsilon_{it}$$
[1]

Equation 1 shows the econometric model which has been employed in the current study. All the dependent and independent variables have been transformed into natural log as it makes it easy to interpret the results in elasticities.

## **Results and discussion**

The current research examines the influences of corruption, political stability, financial and trade openness on the economic growth of selected five South Asian economies covering the period from 2002 until 2017. Table 1 shows the results obtained by FE and RE estimators.

Table 1Outcomes of FE and RE EstimatorsExplained Variable: LGDP							
Variable	FE		RE				
	Coefficient	t-ratio	Coefficient	z-ratio			
LCOR	0.21[0.00]	3-94	0.94[0.00]	25.17			
LPOL	-0.09[0.04]	-2.08	0.23[0.00]	7.86			
LFD	0.71[0.00]	5.97	0.59[0.00]	7.59			
LTOP	-0.68[0.00]	-3.79	-3.94[0.00]	-31.53			
R-Square	0.98		0.22	2			
F-Statistics	601		5.38				
Prob (F-Statstic)	0.0000		0.000				
Correlated Random Effect Test cross-section random			I				
	Chi-Sq. Statistics 7719.98	Chi.sq.d.f. Prob. 4 0.000					
Note: ***, ** and * show significance level at 1%, 5% and 10% respectively. The values in [-] are the probability values.							

Table 1 shows the outcomes acquired through FE and RE estimators. The Hausman test's outcome indicate that outcomes obtaind through FE are robust as the P-value of Hausman's test is less than 5%. Nevertheless, it is also essential to

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examine that the data are free from other problems such as autocorrelation; heteroscedasticity and multicollinearity. Therefore, this study checks these issue too. The results of autocorrelation; heteroscedasticity and multicollinearity are given in Table 2.

Table 2 Diagnostic Checking					
Autocorrelation Heteroscedasticity		Multicollinearity			
0.000	0.5599	1.86			

Table 2 indicates that the results of autocorrelation (0.00); heteroscedasticity (0.55) and multicollinearity (1.86). It exhibits that merely the issue of autocorrelation is present in the data which may provide unreliable and inefficient findings. Hence, this study in order to remove the problem of autocorrelation and to have robust results employs robust least square (RLS) estimator.

Table 3 Results of Robust Least Square (RLS) Explained Variable: LGDP					
Variable	Coefficient	z-ratio	p-value		
LCOR	0.85	2.98	0.00		
LPOL	0.22	1.05	0.29		
LFD	0.28	0.47	0.63		
LTOP	-3.87	-4.06	0.00		
Note: ***, ** and * show significance level at 1%, 5% and 10% respectively.					

Table 3 is indicating the results acquired through RLS estimator. The findings exhibit that corruption has significant and positive influence on the economic growth of the selected South Asian countries. It indicates that 1% increase in the corruption positively enhances economic growth by 0.85%. Meaning that corruption is working like a "lubricant or grease for the wheel" in the five developing South Asian countries. Likewise, trade openness is also observed to have a significant nevertheless negative impact on the economic growth. For instance, it is shown in Table 3 that 1% increase in trade openness adversely influences the economic growth of these South Asian economies. Nevertheless, political stability and financial development are found to have insignificant relationship with the economic growth.

## Conclusion

This study tests the two major hypotheses linked with corruption and economic growth either corruption is a grease or sand in the wheels. The study emphasizes

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on the five developing countries of South Asian region and covers the period from 2002-2017. For the estimation, traditional panel data estimation techniques of fixed and random effects are used. In addition, for the robust findings and to fix the issue of autocorrelation, this study uses robust least square (RLS) estimators. The empirical outcomes show that corruption in these developing South Asian economies is beneficial for the economic growth. As the corruption increases it positively affects the economic growth.

This also implies that these countries have rigid regulations and laws which hinders firm to take initiatives. Therefore, firms and individual lubricate the process through bribe and get the wok done smoothly and this positively enhances the economic growth. Nevertheless, it is not recommended for these countries to ease the corruption for more economic growth as it in the long run lower the institutional quality and adversely affects the economic growth. Moreover, corruption also shows the decay of morality in the society. This perception also hinders the investors to invest in the highly corrupt societies. Low investment means less employment opportunities and low income. Therefore, these five developing countries are suggested to reduce the corruption through introducing flexible laws and severe penalties for the government officials who are found involved in the corruption. This will assist these countries to improve the institutional quality to incur more robust and higher economic growth which is essential for these countries.

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