Measuring Economic Cost of Corruption: Empirical Evidence from Pakistan

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Abstract

Purpose- In this study economic cost of corruption in Pakistan has been measured. Pakistan has been facing the problem of corruption since its independency. According to transparency international United states of America Pakistan has been ranked 117 countries out of 180 in world in 2017.

Method/Design- Secondary data has been collected from various sources such as Asian development bank and various issues of economic survey of Pakistan. In this study independent variable such as export, inflation and foreign borrowing impact on dependent variable corruption perception index has been analyzed. In this analysis OLS regression technique was applied in e-view 7.

Findings- Foreign borrowing and export annual change is found to have significant impact on corruption but there is no significant impact of inflation on corruption perception index. Based on finding it is recommended that policy makers should develop effective policies in order to reduce the impact of corruption on economy.

Keywords: Corruption Perception Index, Export, Inflation, Foreign Borrowing

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INTRODUCTION

Corruption

Corruption is the wrong behavior of a person in general it is the dishonesty, fraud, deception and misconduct done by a person to get some illegal gains. Corruption has been a problem in many developing countries along with Pakistan. Our Pakistani society have been a victim of corruption continuously. It is matter of concern for Pakistan and it is very important what factors are promoting corruption in our country and what can be the ways to fight it and make our country clean from it. In this study corruption is taken as independent variable to see the economic cost of it against which some economic variables are taken as independent variables to see if these can be the reason in promoting corruption. Since Pakistan came into being it had faced a problem of corruption. Corruption in Pakistan is prevalent especially in government and public sectors. Recently in 2017 corruption in Pakistan is noted at 117th place among 180 countries according to corruption perception index of transparency international. And its current score is at 32 (0 being highly corrupted to 100 being highly clean).

Figure 1 Pakistan's Corruption Rank Among World

Source: Transparency International Pakistan

Previously the ranking of Pakistan's corruption on corruption perception index went as high as 144 in 2005 and it went as low as 39 in 1995. Noticeable improvement has been seen in Pakistan's corruption index when in 2013 improvement by 12 indices has been seen in its ranking as compared to its previous rankings.

Inflation

In Pakistan inflation had always been volatile. In 2016 it was recorded 2.9 percent which count as the lowest and in FY 1974 it was 30 percent. The monthly data since July 1993 indicates that CPI was highest in the month of august of the 2008 up to 25.3 percent. it has been observed that in September 2015 it was lowest up to 1.3 percent.

Figure 2 Historical Trend in Inflation

Source: Pakistan Economic Survey 2017-18

Export

Pakistan's export has continuously decline in last few years. The main reason behind this decline was the less demand in the global economy but now the global economy is doing better so is the Pakistan.

Pakistan's export is also increasing which is reducing the negative growth during the financial year 2017 the export decline was only 1.76 percent (in early years it was 12.2 percent). The exports during July-February FY2017 was 13.3 billion US dollars and in July-February FY2018 the export reached to 14.8 billion dollars (growth of 11.6 percent).

The raise in export is due to the different steps taken by government such as export package of 180 billion announced by the government, improvement in energy supply. State bank of Pakistan had reduced markup rate on Export Refinancing Facility (ERF) from 9 percent in 2010 to 3 percent in July of 2016 and the long-term financing facility (LTFF) for 3-10 years was around 11.4 which is reduced to 6 percent.

PAKISTAN'S MAJOR EXPORT SHARE PERCENTAGE

Table 1 Pakistan's Major Export Share Percentage

Commodity	July-January 2016-17	July-January 2017-18
Cotton Manufactures	60.3	57.9
Leather	8.2	4.3
Rice	7.5	8.3
Sub-Total of three	76.0	70.5
Other Items	24.0	29.5
Total	100	100

Source: Pakistan Bureau of Statistics

Pakistan is currently focusing on reducing the cost of export which will boost the export. Government is trying to implement world trade organization's trade facilitation agreement which will help us to reduce the cost of export around 14 percent. Pakistan is also focusing to enhance the digital trade policies and frame work is being develop the policies and procedures regarding the Payment Infrastructure, Logistics and Taxation issues related to E-Commerce. Digital platform will change the way of doing business it will help it connect buyer and seller to connect.

External Debt

Making substantial and wise strategy for debt management is supremely important mainly when debt flows are directed to achieve escalated progress goals. For so many years all efforts are directed towards improving country's economic footmarks aligned with macroeconomics targets that will ultimately help in repayments of debts through updated infrastructure. So, in current circumstances Pakistan must keep a fine equilibrium – it requires to borrow so that its development process is facilitated while making sure it's level of debt is managed wisely keeping in mind it's repayment ability.

Problem Statement

Previous scholars explored the impact of inflection, export and foreign borrowing on the corruption. Studies conducted by (Abdulai, 2009, Melgar et al 2010, Samimia & Abedini, 2012, kimuyu, 2007, Junior, 2015, JALLES, 2011). Most of them concluded that there was the significant impact of all three factors (inflection, foreign borrowing and the annual export change) on the independent variable corruption. The corruption in Pakistan cannot be ignored. Government can take several steps to minimize the corruption and closely analyze the factors due to which corruption is increasing.

Significance of the Study

The corruption in Pakistan increasing in day by day and that is due to different reasons. firstly, the foreign debt has the positive impact on corruption as the county's foreign borrowing will increase the corruption will also increase and there is the negative impact of export on foreign debt. Government should consider these points while making decision. They should encourage export to reduce the corruption and foreign borrowing should be minimized in order to control the corruption.

Research Objectives

1. To analyse the significant impact of foreign borrowing on corruption in Pakistan.
2. To find the significant impact of export annual change on the corruption in Pakistan.
3. To examine the significant impact of inflation on the corruption in Pakistan.

LITERATURE REVIEW

Inflation and Corruption

Sahin and Uçler (2017), The effect of corruption on inflation in developing countries: evidence from panel Co integration and causality tests. The research examined the relation between inflation and corruption. In this study various variables have been studied such as inflation rate, freedom from corruption index (developed on the basis of corruption perception index (CPI)), GDPGAP (Real GDP minus detruded GDP with Hedrick-Prescott Filter), OPEN (Exports plus imports of goods and services (% of GDP)) and M2 (Broad money growth (annual %)) and for analysis he took the data for the period of 1995–2015 of 20 developing countries. The research concluded that there is significant and positive relation between inflation and corruption. Increase in corruption lead towards the high level of corruption. Author suggested that effective policies should be formed in order to control corruption which will help to reduce inflation and lead towards price stability.

Ali and Sassi (2016), Conducted their study to know the relationship between inflation and corruption. The study used various variables such as corruption, inflation and government policies for the sample size of 100 developed and developing countries the data was collected over the time period of 2000–2012. According to results inflation and corruption are correlated increase in corruption lead towards less tax rate and the rate of monetary expansion raise and ultimately inflation raise according to author bad economic policies in developing countries lead towards higher inflation author recommended that the policy makers of developing countries should focus on long term financial planning rather the focusing on short term policies. Based on literature review following hypothesis has been developed.

Samimia and Abedini, (2012), Control of inflation tax and corruption: evidence from developing countries. The paper intended to examine the impact of corruption on inflation in developing countries. Control of Corruption Index (CCI) was used to measure corruption. For analysis the secondary data for the period 2003-2010 of 40 countries (North Africa and Middle East countries and other developing countries) was taken as a sample. According to the finding based on panel data regression model there is positive relation between inflection tax and corruption. Based on the results, authors recommend that there should be strict policies to control corruption that will automatically lead to lower inflation rate.

Smith-Hillman (2007), Competition policy, corruption and inflation. The study was conducted to study the relation between competition policy, corruption and inflation on the data of 43 countries –20 industrial countries and 23 African countries. The cross-sectional data for 2003 was used. Researcher concluded that effective implementation of policies is important for stable economy and reduce inflation. Based on above discussion following hypothesis has been developed.

H1: There is significant impact of inflation on corruption in Pakistan.

Export and Corruption

Olney (2015), The Impact of corruption on firm-level export decision analyzed on sample size of over 23000 firms in 80 developing countries to see the self-selection of firms into domestic or export markets. The hypothesis was tested through empirical analysis. The result shows significant impact of corruption on company's decision to

export, it confirms that corruption decreases the chances that the firm will export directly and increases the chances that firm will export indirectly and corruption also reduces the chances of a firm to only sell domestically because only more productive firms can afford to bear the extra costs of the corrupt business environment thus only more productive firms will export indirectly and most productive firms will export directly and only low productive firms sell domestically.

Junior (2015), Analysis of oil export and corruption in Nigerian economy is studied to see the impact of crude oil export on Nigerian economy and its level of corruption. Data is collected from the sample size of 33 years of Nigeria. The collected data is tested empirically by using different statistical/econometric techniques such as OLS regression analysis, t-test, f-test, Ramsey reset test, chow f-test. Result from this analysis shows that there is a correlation between corruption and economic growth in Nigeria. As much as there will be corruption the growth of development in oil sector will reduce.

Musila & Sigue (2010), Corruption and international trade: Empirical examination done on African countries has been studied to see how corruption affects the flow of imports and exports in African countries by collecting annual data from African countries for the period 1998-2007. This data has been analyzed empirically. Results show that how corruption in Africa and their trading partners affect exports and imports. Results suggests that if corruption from both African countries and their trading partners will diminish if both become clean. It is recommended that the policymakers in Africa should make it their priority to fight against corruption.

Dutt and Traca (2010), Influence of corruption on bilateral trade is examined on the sample size that covers 122 countries from the period of 1989 to 2001 emphasizing the dual role of corruption in terms of evasion and extortion. Empirical approximation has been done by using various techniques such as corruption-augmented gravity model and international country risk guide (ICRG) which is survey-based index of corruption. Results have shown that corrupt officials let the exporters avoid tariff barriers when tariffs are high (evasion effect) in this way corruption become trade boosting. And when exporters reach the import country corrupt officials take bribe from them forcefully (extortion effect), this shows corruption hamper trade in a large number of countries.

H2: There is Significant impact of export on corruption in Pakistan.

Foreign Borrowing and Corruption

Henri (2018), The study was conducted to investigate the impact of corruption on public debt on the data of 29 Sub Saharan African countries for the time period 2000 – 2015. public debt was taken as the dependent variable and corruption was taken as an independent variable. The results concluded that corruption has a positive effect on public debt. On the basis of results author concluded that the government should take step to control the corruption and utilize the public debt effectively.

Kim et al (2017), The study examined the effect of corruption on the relationship between economic growth and public debt various variables was studied such as GDP per capita, human capital, inflation, government size (Government consumption ratio to GDP), public debt and fiscal deficit. For analysis the data of 77 countries for the time duration from 1990 to 2014 was taken. The results showed that there is significant relationship between corruption and public debt. Author recommended that government should work hard to enhance the quality of institutes to maximize the profits (revenue).

Matthew et.al (2016), Examined the impact of corruption on the debt (external) in Nigeria. In this study various variables were studied such as External Debt, Corruption, Public Expenditure and exchange rate. For analysis the secondary data for the period 1996 to 2014 of Nigeria was used. The result concluded that public expenditure and corruption has the positive relationship with external debt. However, exchange rate has negative relationship with external debt. Author recommended that government should focus on the policy of free market economy to control the corruption and the projects financed by external debt should be managed properly and the head of department should be accountable for the proper utilization of the resources.

H3: There is significant impact of foreign borrowing on corruption in Pakistan.

MATERIALS AND METHODS

The data source of the study is 'secondary', this data is not collected by the current user himself it is collected by someone else. The sources from which the secondary data can be collected are information gathered by government departments, records of organization collected for other research purposes etc. Secondary data is not very expensive to collect and this is the kind of a data which is easily available as compare to primary data which involves the collection of research data directly from the respondents. Here the data is collected from "Asian Development Bank", various issues "Economic survey of Pakistan". The population of a research study is participants or the respondents of the study that possess similar characteristics or traits (Weiss, 2012). As the aim of the study is to explain the economic cost of corruption in Pakistan by analyzing different independent variables so here the sample size is based on Pakistan from the year 2002-2016.

The present also studies the relationship between different variables. The below describe the dependent and independent variables of the study and statistical techniques to measure the relationship between these variables.

Table 2 Hypothesis, Variables, and Techniques

S. No	Hypothesis	Variables		Based on objectives	Technique
		Independent	Dependent		
1	H1	Export annual change	Corruption	1	Multiple regression analysis
2	H2	Inflation	Corruption	2	Multiple regression analysis
3	H3	Foreign Borrowing	Corruption	2	Multiple regression analysis

RESULTS AND DISCUSSION

Multiple Regression Analysis

Table 3 Multiple Regression Analysis

Variables	R
EAC	0.859496
FB	
INF	

Source: Author' Estimations

a. Predictors: (Constant), EAC, FB, INF b. Dependent Variable: Corruption

The model summary indicates the relationship between an estimated value of the dependent variable and studied variables. All mentioned independent variables show the R-value is in this study 85.9%. R-value also indicates overall fitness of model.

Coefficient

Table 4 Coefficient

Model	Standardized Coefficients		P value
	Beta		
(Constant)	10.35553		0.0136
FB	1.59E-05		0.0002
EAC	-0.487847		0.0228
INF	-0.613530		0.2142

Source: Author' Estimations

A coefficient table shows two important values, the value of beta and p-value. The value of beta usually determines the relationship between dependent variable with independent variables whereas p-value shows the level of significance. Table # 4 shows that there is the positive and significant relationship between foreign borrowing and dependent variable (corruption), there is significant and negative

relationship between export annual change and corruption and there is negative and no significant relation between inflation and corruption.

Hypothesis Testing

Table 5 Hypothesis Testing

Name of Independent variable	Hypothesis	Outcome
Foreign borrowing	There is a significant impact of foreign borrowing on corruption	Accepted
Export annual change	There is a significant impact of export annual change on corruption	Accepted
Inflation	There is a significant impact on inflation on corruption	Rejected

As the above-mentioned table show that foreign borrowing has the positive and significant impact on corruption so the alternative hypothesis is accepted, annual export change has the significant but negative relation with corruption so the alternative hypothesis is accepted that there is a significant impact of export annual change on corruption and the inflection have negative and no significant relation with corruption so the alternative hypothesis is rejected and null hypothesis is accepted that there is no significant impact of inflection on corruption.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The main purpose of this research was to measure the economic cost of corruption from Pakistan. In this analysis, three independent variables foreign borrowing, export annual change and inflation impact on a dependent variable such as Corruption are considered. The findings of this study revealed that foreign borrowing has the positive and significant impact on corruption, annual export change has the significant but negative relation with corruption and the inflation have negative and no significant relation with corruption.

This study revealed that if, corruption increases than there are two economics costs are not be ignored. First, the higher level of corruption leads to increase the foreign borrowings that ultimately create problem for the government to re-pay said amount in terms of dollars. Second, corruption has negative impact on level of export, that also will be problem for overall economy performance and balance of payment.

Recommendations

- Corruption should be addressed through effective polices in almost all government-based departments.
- The government expenditures should be reduced at great level, so that the foreign borrowings can be addressed in terms corruption by the government departments.
- Visibility and latest technology should be implemented in order to get transparency in the government departments in the context of export.

Future Recommendations

- Despite the fact that this study provides valuable factual findings on corruption and its independent variables some constraints must be examined when demonstrate the result for example year of data collection across the countries are different.
- It can be valuable to expand future research to other economies which are emerging such as south East Asian countries and central and east European countries.

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