

Hussain, Tariq; Siddiqi, Muhammad Wasif

## Article

# Fiscal policy, institutions and governance in selected South Asian countries

Pakistan Journal of Commerce and Social Sciences (PJCSS)

## Provided in Cooperation with:

Johar Education Society, Pakistan (JESPK)

*Suggested Citation:* Hussain, Tariq; Siddiqi, Muhammad Wasif (2013) : Fiscal policy, institutions and governance in selected South Asian countries, Pakistan Journal of Commerce and Social Sciences (PJCSS), ISSN 2309-8619, Johar Education Society, Pakistan (JESPK), Lahore, Vol. 7, Iss. 2, pp. 331-345

This Version is available at:

<https://hdl.handle.net/10419/188094>

## Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

## Terms of use:

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



<https://creativecommons.org/licenses/by-nc/4.0/>

## **Fiscal Policy, Institutions and Governance in Selected South Asian Countries**

Tariq Hussain (Corresponding Author)  
PhD Scholar, Government College University, Lahore, Pakistan  
E-mail: thussain\_eco@yahoo.com

Muhammad Wasif Siddiqi  
Senior Visiting Faculty, Government College University, Lahore, Pakistan  
E-mail: mwsiddiqi@gmail.com

### **Abstract**

The objective of the study is to analyze the cyclicality of Fiscal Policy among Institutions (Economic and Political) and governance indicators from 1980-2010 in major South Asian Countries. Fiscal policy is a major source in the hands of the government to achieve higher level of economic growth. This policy can perform efficiently in the presence of strong institutions with good governance. The main purpose of fiscal policy is to bring stability in the economy. Therefore, developed countries adopt counter cyclical policies but developing countries adopt pro cyclical fiscal policy. Developing countries adopt pro cyclical fiscal policy due to weak institution and poor governance. Pooled OLS, Fixed effects and 2SLS approaches are used to evaluate whether the fiscal policy is counter cyclical or pro cyclical. It is found that fiscal policy is pro cyclical, economic and political institutions don't perform effectively and governance is poor. In order to bring stability in economic growth in South Asian countries, counter cyclical growth policies should be adopted.

**Keywords:** cyclicality; fiscal policy; institution; governance; South Asia.

### **1. Introduction**

Economic growth is an important objective of both developed and developing nations. In order to attain this objective, certain paths and policies are needed. Acemoglu *et al.* (2003) elaborated that economic growth policies have significant role in increasing the GDP. Growth policies are essential tools to accelerate the pace of economic growth. Mises (2006) explained that in growth policies, there are no miracles. After the Second World War, Germany started well to build as a powerful nation. The revival of Germany after defeat and heavy losses in the Second World War is called their miracle. This miracle is due to the application of growth policies. Therefore, economic recovery does not come from a miracle; it comes from the implementation of economic policies that

have significant role in acquiring the higher growth level. In growth policies, fiscal policy has robust role in acquiring economic growth targets.

In order to gain sustainable growth, the role of the government is significant. But the classical thoughts about the role of government are no more valid as the people had to face the problems of unemployment and destabilization. Keynesian thoughts acquired strong position to elaborate the role of government in economies. The Government's major economic goal is to increase the rate of sustainable growth and this can be done by providing employment and political stability for business. For this purpose, the government's expenditures and taxes are used. But in developing countries, the governments' don't use effectively the tools (expenditure and taxes) of fiscal policy. These governments adopt pro cyclical fiscal policy. This phenomenon is against the Keynesian thoughts.

Keynesian thoughts show that there is counter cyclical fiscal policy during boom and pro cyclical through recession to capture the cyclical variations. Gavin and Perottis' (1997) pioneer study, elaborated that there is pro cyclical fiscal policy in Latin American economies. The fiscal policy is expansionary in good and superior times and contractionary in bad times. There are two main reasons why developing countries adopt the procyclical fiscal policy. First, deficiency in International Credit Markets that put off developing countries to get loans in bad times, second, weak institutions. The first thought is supported by the studies of Gavin and Perotti (1997) and Guerson (2003), and the second thought is favored by Tornell and Lane (1998, 1999), Talvi and Vegh (2005), Alesina and Tabellini (2008). Weak institutions are main drawback of developing countries. Institutions are considered main pillar of economic growth.

North and Thomas (1973) elaborated that innovation, capital accumulation and education, are not reasons of growth; these are growth. In North and Thomas's view, factor gathering and novelty are only adjacent causes of growth. The primary clarification of comparative growth is dissimilarity in institutions. In institutional building among developing countries, the role of colonial power is also dominant. The European nations have established huge colonial empire. In these colonies, these powers developed the institutions according to their own interest. The region where mortality rates are high, these powers do not settle there permanently and develop extractive institutions as Congo. These extractive institutions do not initiate protection of property right and no checks and balances are there in opposition to the government expropriation. On the other hand, the areas where weather conditions are favorable, as New Zealand and USA, these colonial powers develop good institution like Europeans institutions. These institutions are still working in these countries even after their independence (Acemoglu, 2001). It is obvious that good institutions like in USA and New Zealand make these nations the developed economies of the world and institutions in developing countries like South Asian countries are the main cause of their slow progress.

Different types of institutions work together, in the process of economic growth. The economic difference in both developed and developing countries might be due to the differentiation in economic institutions. The main elements of economic institutions are property rights and rule of law. In the same way, political institution has significant role in achieving the higher economic growth. Acemoglu *et al* (2005) elaborated that political institutions set the stage for economic institutions. The role of political institutions is indirect. Political leaders provide the framework to economic institutions.

Institutions serve as input to governance. It directs information regarding public goods and assists the government in making rules and regulations. The possibility of clashes is minimized and helps to implement the agreements through the judicial and legal system. Institutions give clear and apparent apparatus to govern businesses, so minimizing corruption and bureaucratic hurdles (WB 2002; Grigorian and Martinez 2000). In present era, governance becomes main focal point of economists, policy makers and world organizations' representatives. The World Bank and International Monetary Fund (IMF) representatives now focus on governance conditions of developing countries. However, good governance has gained the position of hymn for patron organization and agencies and contributor economies (Nanda, 2006).

In developing region of South Asia, the importance of governance is obvious. Without governance, institutions do not perform effectively. This poor governance is predicted to diminish the effectiveness of the investment channel while increasing the effectiveness of the factor-productivity channel in the link between fiscal policy and growth. Governance in these countries is often poor (Abed and Gupta, 2002).

Overall the aim of fiscal policy is to increase the output level and bring stability in business cycles. For this purpose, counter cyclical policies are adopted by the developed countries, but developing countries adopt procyclical policies. One of the main reasons, why developing countries adopt procyclical policies is that developing countries have less access to International Financial Institutions. But an important aspect is neglected for a long time, with respect to sustainable growth, is the role of institutions in economic growth. Developing countries have weak economic and political institutions. Since institutions function as input to governance, weak and fragile institutions cause to poor governance in developing economies of the world.

The organization of the study is as follows. Section II contains literature review; methodology is elaborated in section III, section IV presents empirical results and conclusion and policy implications are given in section V.

## **2. Literature Review**

In order to achieve policy objectives, governments, especially in developing countries, make every effort to gain targets set for policies, like fiscal policy. The neoclassical theory of fiscal policy put forward four causes for government spending to perform counter-cyclically. First, the government spending should increase in boom and decline in recession. Second, to maintain the sustained level of production, the government should try neither to hurt the demand nor to overheat the economy. Third, in order to understand better the economies, it is recommended that the governments very carefully elaborate the changes in economic activities. Fourth, there is a need for the government to perform counter-cyclically in expenditure mode. (Lane, 2003a).

Procyclical fiscal policies, are the policies which are expansionary in booms and contractionary in recessions. It is normally considered as potentially destructive for welfare. Due to this, macroeconomic volatility increase, and investment in human capital fall, and obstruct growth. (IMF 2005, IMF 2005b, Serven, 1998). From the last fifteen years, it becomes a hot issue that fiscal policy is countercyclical among developed countries and procyclical in developing countries. Gavin and Perotti (1997) elaborated the truth that in Latin America, fiscal policy seemed to be procyclical. Talvi and Vegh

(2005) after that declared that, Latin-American countries adopt procyclical policies, procyclical fiscal policy appeared to be the rule in all over the developing economies. Thornton (2008) examined the role of fiscal policy in African countries. Plain time series regressions are applied for 37 low-income African countries for the time period of 1960–2004. It is found that government consumption is extremely procyclical, with consumption. It is elaborated that government consumption is further procyclical only in those African countries that are further dependent on foreign aid and less corrupt. Fiscal policy is less procyclical in countries with uneven income division and that are more democratic. For low income countries, it is better to rely less on foreign aid and try to improve their own resources as increase output in industrial and agricultural sector and improve their trade.

Talvi and Vegh (2005) elaborated the role of fiscal policy in both developed and developing countries. Fiscal policy in Great Seven (G7) countries is countercyclical, however, in developing countries, it is highly procyclical. An optimal fiscal policy model that includes a political deformation is introduced. Simple correlation is used to examine the relationship between government spending, GDP and political institutions. Developing countries adopt procyclical fiscal policy during boom. The governments in developing countries are not able to create enough additional resources during expansions which urge it to borrow less through recessions. So, the focal point of policy implication is to save handsome amount of surplus for rainy season. As von Hagen and Harden (1995) and Eichengreen *et al.* (1996) have suggested to establish a national fiscal council which would be an autonomous body and collect handsome amount during boom period of business cycle.

Hathroubi and Rezgui (2011) analyzed the cyclicity of fiscal policy in Tunisia. Annual and quarterly data is used in the study. The cyclical factors of the variables are separated by applying the technique of Marcet and Ravn (2003) to decide the optimal smoothing parameter in the HP filter. The cyclicity is studied empirically from theoretical models developed by Iltetzki and Vegh (2008). The econometric regression technique is used which confirm the procyclical posture of public investment in Tunisia. But, consumption does not look to react systematically to the cyclical advancement of GDP. The consumption pattern and tax structure should be in line with the countercyclical fiscal policy.

Lledo, *et al* (2009) examined cyclical pattern of government expenditures in sub-Saharan Africa as 1970s and elaborates deviation among countries. Annual data in an unequal panel for 39 years from 1970 to 2008 is used, in this study. There are 174 countries, 44 are in Sub-Saharan African countries (SSA), 33 are developed countries, and 97 are non-sub-Saharan African developing economies. System and Difference GMM is applied. It is found that government expenditures are a little more procyclical in sub-Saharan Africa than in other developing economies. A few facts that procyclicality has turned down in African countries in current years, especially in the decade of 1990s. Better fiscal space and improved approach to concessional financing, proxied by lower external debt and by larger aid flows respectively, looks to be important factors in minimizing procyclicality in the area. The role of institutions is not obvious: changes in political institutions have no effect on procyclicality. There is need to improve the institutions function side by side fiscal policy tools.

The role of institutions is dynamic in achieving economic growth. Institutions are major source in attaining sustained growth level and economists always stress the role of institutions. In the same way, the current literature has focused on the role of institutions. As Mauro(1995), Hall and Jones (1999), Acemoglu *et al* (2001), Easterly and Levine (2003) Roderik *et al* (2004) are agreed that the role of the institutions is essential for economic growth. Besides this, a number of indices are developed by the economists to assess the role of institutions in economic growth. The most common index is Gwartney *et al* (1996) which is frequently used in empirical studies. It is an economic freedom index. A number of studies as, Goldsmith (1997), Easton and Walker (1997), Ayal and Karras (1998), Dawson (1998), De Haan and Sturn (2000), Heckman and Strong (2000), Ali and Crain (2002) and Bangoa and Sanches Robels (2003) show that economic freedom has significant relation with per capita GDP. Likewise political institutions has significant role in economic growth. Keefer (2005) elaborated that there are three important pillars of political economy, collective deed, institutions and political market deficiencies in the growth of a country. It is clearly explained by the studies that who wins or loses in the procedure of policy making. It is evident that there is no essential association among political resolution making and efficiency. When applied to developing economies, political economy investigation have confirmed that frequently disastrous policy options and living circumstances do not due to lack of resources but to a certain extent from local political and social conditions. There are a number of studies which show that political institutions have significant role in economic growth. Scully (1988), Barro (1990), Dasgupta (1990) and Olson (1993) finds positive relationship between economic growth and political institutions. However, it is also found that political institutions has no major role in economic growth, as World Bank (2000), Barro and Lee (1993) and De Hann and Seriman (1995). In developing countries, institutions are not functioning well; one of the main reasons is poor governance in these economies.

Governance has become essential issue of the world, especially in the developing world. The phrase governance has exploded from darkness to duke in economics ever since the 1970s. It is clearly shown through a research of Economic Literature Database. In the appropriate grouping, there are only five incidences of the word from 1970 to 1979. The number increases to 112 in 1980s and 3,825 in 1990s (Dixit, 2008). Chaudhry *et al* (2009) elaborated the impact of economic and social variables on good governance. It becomes a robust issue to achieve the sustainable level of economic growth. This study examines the affects of a few robust and significant macroeconomic variables on good governance. The study covers the time period from 1972 to 2007. OLS technique is used. The results of analysis put forward that social and economic variables have really strong impact on governance. Roy (2005) and Sharma (2007) elaborated that poor governance harms the economy and it retards the growth process.

### **3. Data Sources and Methodology**

The data for the study is panel data and covering the time period 1981-2010. The data is collected from World Development Indicators (2012) KOF Globalization Index, Polity iv, Human Right Data set (Cingranelli and Richards, 2010), Freedom House and Quality of Government Institute.

The main purpose of this study is to observe the fiscal policy; it is pro cyclical, countercyclical or acyclical. The role of institutions is focused; strong institutions assist the government in implementing growth policies. However, institutions and other growth variables may cause the endogeneity (Falcetti, 2002). In the same way the data on institutions may cause multicollinearity. So Principal Component Analysis (PCA) is used to reduce the multicollinearity and dimensionality in the data. The main purpose of PCA is to decrease the dimensionality of a data set. Preisendorfer and Mobley (1988) elaborated that Beltrami (1873) and Jordan (1874) autonomously developed the singular value decomposition (SVD) in such a way that formed present PCA. Though, it is usually customary that the initial descriptions of present PCA are given by Pearson (1901) and Hotelling (1933). PCA is linear combination or grouping of the random variables  $X_1, X_2, \dots, X_n$  and rely on the covariance matrix.

PCA is a statistical procedure which is utilized to observe relationships between various quantitative variables. Simply, in the language of mathematics, if, when there are “n” correlated variables, this technique develops uncorrelated elements. Every factor is a linear weighted mixture of the “n” variables. As, a set of variables  $X_1, \dots, X_n$ .

$$PC_1 = a_{11}X_1 + a_{22}X_2 \dots \dots \dots a_{1n}X_n \quad \text{Eq (1)}$$

$$PC_m = a_{m1}X_1 + a_{m2}X_2 \dots \dots \dots a_{mn}X_n \quad \text{Eq (2)}$$

Where, mn presents the weight for the mth principal component and the nth variable. Indeed such weights are the eigenvectors. The eigenvalue of the related eigenvector is the variance for every principal component. The first principal component, elaborates the largest feasible variation in the data. In the same way, all following principal components ( $PC_2$  to  $PC_n$ ) are uncorrelated with the preceding principal components however elaborates slighter proportions of the deviation of the original variables (Johnson and Wichern, 2007, P. 431).

The first technique, Pooled OLS is used in the study. This is a simple case of applying the pool data by ignoring the structure of the data. Such models have many restrictions. There is no serial correlation and heteroskedasticity in the data. The error term is identically and independently distributed (iid). But this technique has certain drawbacks, fixed effects technique is used.

Roodman (2006) elaborated that fixed effects are not accounted in OLS model. In fixed effects model, constant is considered as group specified. It means that there are diverse constant for every group. In a fixed effects model, constant is correlated with regressor. Fixed Effects models eliminates the outcome of the time invariant distinctiveness and evaluates the net effect of the predictor.

Anderson and Hsiao (1982) examined that by using differenced variables in the model, it accurate for achievable correlations among the independent variables and the error term. Fixed and random effects models are designed to overcome the shortcomings of Ordinary Least Square (OLS), disregarded individual definite effects and inconsistency. Besides this, DFEPm takes into consideration institution and time-related fixed effects and it also take into account the potential endogeneity of regressors (Arellano and Bover, 1995; Blundell and Bond, 1998).

Much of theory was built on sets or systems of relationships. If the interest was only in a particular part of the system or in the system as a whole, the interaction of the variables in the model would have important implications for both interpretation and estimation of the model's parameters. The implications of simultaneity for econometric estimation were recognized long before the method was developed (Working 1926 and Haavelmo 1943).

Endogeneity is a source of irregularity of the least square. It needs instrumental variable technique as 2SLS. As a number of the right-hand-side variables are endogenous, so 2SLS generality of panel-data estimators is required, for exogenous variables (Baltagi 1981).

### 3.1 Fiscal Policy Models

In order to evaluate the fiscal policy cyclical, fiscal response is assessed through the government expenditures, revenue and output. As cyclical is a significant idea which tells and assists to understand the direction of fiscal policy. This study uses the following models to evaluate the cyclical of fiscal policy. In this study, the dynamic equations with lagged values are used to capture the cyclical of fiscal policy.

$$\Delta LGE_{it} = \alpha_0 + \alpha_1 \Delta LY_{it} + \alpha_2 \Delta LGE_{it-1} + \alpha_3 LREV_{it} + \alpha_4 LECO_{it} + \alpha_5 LGI_{it} + \alpha_6 LOP_{it} + \alpha_7 LK_{it} + \varepsilon_{1it} \quad \text{Eq (3)}$$

$$\Delta LGE_{it} = \beta_0 + \beta_1 \Delta LY_{it} + \beta_2 \Delta LGE_{it-1} + \beta_3 LPI_{it} + \beta_4 LGI_{it} + \beta_5 LOP_{it} + \beta_6 LK_{it} + \varepsilon_{2it} \quad \text{Eq (4)}$$

Where  $\Delta$  is the difference,  $L$  is the log,  $GE$  is the government consumption expenditures,  $Y$  is the Real Gross Domestic Product (GDP),  $GE_{t-1}$  is the lagged value of government consumption expenditures,  $REV$  is revenue,  $ECO$  is the economic institutions,  $GI$  is governance indicators,  $OP$  is the trade openness and  $K$  is the Gross fixed capital formation,  $PI$  is political institutions  $\varepsilon_{it} = \mu_i + v_{it}$ ,  $\mu_i$  is individual specific effects and  $v_{it}$  is the remaining usual disturbance term,  $\alpha_0$  is the intercept and all  $\alpha$ s are coefficients and  $i$  is for countries and  $t$  is for time. Equations 3 and 4 are for economic and political institutions respectively with governance indicators.

## 4. Empirical Results

Before presenting the final result, the method and composition of institutional indices, economic, political, and governance are elaborated. In order to measure the institutions there are a number of problems as subjective and objective issues (Glaser *et al.* 2004). So as to handle this issue, Principal Component Analysis (PCA) approach is applied by a number of economists. De melo *et al* (1997) and Havrylyshyn *et al.* (2000) developed institution indicators by utilizing PCA. In this study, the three indices as economic, political, and governance is developed. For economic institutions, a number of indicators and indices are developed by economists as economic globalization index is developed by KOF, the index range is 0 to 100, where 0 is for low and 100 for good institution. The indicator Actual Flow (AC) is taken from KOF index of globalization. By following the lines of International Country Risk Rating (ICRG), the economic risk rating index is prepared. There are five indicators as GDP score show percentage change in GDP, per capita GDP, Inflation, budget balance and current account balance. The index is developed by taking data from WDI 2010. The ICRG risk rating criteria is as from 0 to 24.5 percent show very high risk, 25 to 29.5 high risk, 30 to 34.5 moderate risk and 35 to



40 low risk. The Score (SC) of SAARC countries is generated. The government size (consumption expenditures as percentage of GDP) indicator is also included as it is developed in Free the Economic World indicators (FEW). By applying Principal Component Analysis, an index of economic indicators is generated. In the same way, for political institution index is prepared. For political Institutions index, the indicators as Legislative competitiveness for electoral environment (LIEC) and Executive competitiveness for electoral environment (EIEC) indicator with the value ranging from 1 to 7 where 1 is for low and 7 for higher quality is taken. Political globalization (PG) indicator is developed by KOF with the value of 1 to 100 and 1 for low and 100 for high. Polity2 (PL), Executive constraints (EC) and Total summed magnitudes of all (societal and interstate) Major Episodes of Political Violence (ACTOT) indicators are developed by Polityiv project. These indicators are used by a large number of economists in their studies, as Gleaser *et al* (2004), Alesina *et al* (1996) and Barro and Lee (1994). For governance indicators, civil liberties and political rights indicators are used in the study. These indicators are developed by Freedom House and the values range from 1 to 7. The higher value depicts the poor governance. These indices have been used widely by researchers, as Isham *et al.* (1997), Sachs and Warner (1995a) and Levine and Renelt (1992). The following are the values of indices of economic, political and governance respectively.

$$PC_{1it} = 0.65AC_{it} + 0.70GS_{it} + 0.27SC_{it} \quad \text{Eq(5)}$$

$$PC_{2it} = 0.40LIEC_{it} + 0.44EIEC_{it} + 0.36PG_{it} + 0.46PL_{it} + 0.45EC_{it} + 0.31ACTOT_{it} \quad \text{Eq(6)}$$

$$PC_{3it} = 0.70PR_{it} + 0.70CL_{it} \quad \text{Eq(7)}$$

#### 4.1 Fiscal Policy, Economic Institution and Governance

For the analysis of fiscal policy, Pooled OLS, FE, DPFE and 2SLS techniques are used. The indices of Economic institutions and governance are also evaluated. The combine results are given in the following table.

**Table 1: Fiscal Policy, Economic Institution and Governance**

(Dependent Variable: Expenditure)

Variables	OLS	FE	DPFE	2SLS	
				1 <sup>st</sup> Stage	2 <sup>nd</sup> Stage
$\Delta LY$	0.000	0.355	0.105	0.239	0.000
$\Delta LGE_{t-1}$	0.000	-	0.037	0.000	0.042
LREV	0.206	0.429	0.533	0.003	0.501
LECO	0.752	0.924	0.978	0.000	0.515
LGI	0.903	0.316	0.938	0.000	0.993
LK	0.216	0.003	0.419	0.003	0.142
LOP	0.000	0.346	0.912		
Anderson	0.000	AutoCor	1.84	Hausman	0.0063
CraggDon	11.05	Sargan	0.3256	Hetro	0.000
Redundant	0.000	Wu Hausman	0.000		

The results elaborate that the Fiscal policy in the SAARC region is procyclical as *LY* is significant in OLS and 2SLS models and have positive coefficient sign. The major result is also same as the study of Thorton (2008) and Reinhart (2004) which elaborate that the government consumption expenditures are procyclical to output in developing countries. The P. value of LREV is insignificant in all models. The variable LECO and LGI is insignificant in all models. This result is in line with the study of Gaston K. Mpatswe *et al* (2011). The procyclicality of the government expenditures is due to weak institutional and poor governance. The variables LOP and LK is significant only in OLS and FE model respectively. For model specification, link test is performed. In order to check whether the model is correctly specified  $\chi^2$  is significant and  $\chi^2_{stat}$  does not significant. The test is performed and it is found that the model is correctly specified. The analysis for weak identification, Cragg-Donald (1993) test, is performed. The issue of Weak identification takes place as the excluded instruments are weakly and inadequately connected with endogenous regressors. For this purpose, Stock and Yogo (2005) have piled up critical values for the Cragg-Donald F test statistic. The F statistic of 11.04 put forward that the model is not weakly identified. For over-identification, the Sargan statistic is performed. This test elaborates that the instruments used in the study are suitable instruments, and not related with the error term. The P-value of Sargan test is 0.3256 which shows that the given model is not over-identified. The redundant choice permits a test of whether a subset of expelled or excluded instruments is redundant. The expelled instruments are redundant as the effectiveness of the assessment is not enhanced by utilizing them. The given value of this study fulfills this condition. For endogeneity Wu Hausman test and Hausman specification test for fixed effects is performed, both the results elaborate that endogeneity exists and fixed effects model is appropriate. For autocorrelation and heteroskedasticity tests are also done which show that there is no issue of autocorrelation and heteroskedasticity.

#### 4.2 Fiscal Policy, Political Institution and Governance

In order to analyze the fiscal policy Pooled OLS, FE, DPFE and 2SLS approaches are applied in the study. Political institutions and Governance indices are also used to observe their role in fiscal policy. The results are given in the Table 2.

**Table 2: Fiscal Policy, Political Institution**

(Dependent Variable: Expenditure)

Variables	OLS	FE	DPFE	2SLS	
				1 <sup>st</sup> Stage	2 <sup>nd</sup> Stage
$\Delta LY$	0.000	0.356	0.094	0.000	0.000
$\Delta LGE_{t-1}$	0.000	-	0.036	0.930	0.000
LPI	0.053	0.878	0.442	0.000	0.184
LGI	0.649	0.359	0.810	0.057	0.657
LOP	0.000	0.327	0.972	0.002	0.000
LK	0.293	0.000	0.128		
Anderson	0.000	AutoCor	1.85	Hausman	0.032
CraggDon	17.42	Sargan	0.3121	HeteroSke	0.000
Redundant	0.000	Wu Hausman	0.000		

The results clearly elaborate that the Fiscal policy is procyclical in the SAARC region as  $LY$  is significant in all model except FE model and have positive coefficient sign. The result is also same as the study of Reinhart (2004). The lagged value of Government expenditure is also significant in all models. So, the role of the government expenditure is important factor to measure the government fiscal policy. The role of political institutions and governance is not significant as both the variables are insignificant in all models. The variable LOP is significant in both OLS and 2SLS models. The variable LK is significant only in FE model.

For model specification, link test is performed. In order to check whether the model is correctly specified  $\chi^2$  must be significant and  $\chi^2_{\text{hat}}$  should not be significant. The test is performed and it is found that the model is correctly specified. For weak identification, Cragg-Donald (1993) test is performed. The problem of Weak identification occurs as the excluded instruments are connected with endogenous regressors weakly. The F statistic of 17.42 put forward that the model is not weakly identified. For over-identification, the Sargan statistic is carried out. This test finds that the instruments applied in the study are suitable instruments, and not related with the error term. The P-value of Sargan test is 0.3121 which explains that the model is not over-identified. The redundant choice permits a test of whether a subset of expelled or excluded instruments is redundant. The given value of this study accomplishes this condition. For endogeneity Wu Hausman test and Hausman specification test for fixed effects is performed, both the results elaborate that endogeneity exists and fixed effects model is appropriate. For autocorrelation and heteroskedasticity tests are also done which show that there is no issue of autocorrelation and heteroskedasticity.

## 5. Conclusion and Policy Implications

This study has elaborated the cyclical relationship among fiscal policy, institutions (Economic and Political) and governance in selected South Asian countries. The panel data for six SAARC countries Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka for the period of 1981-2010 give robust evidence of procyclical fiscal policies in this region. The result is also as the study of Thorton (2008) and Reinhart (2004) which explain that the government consumption expenditures are procyclical in developing countries.

As it is evident from the study that the developing countries like South Asia adopt procyclical fiscal policies in boom time, so it is the need of the hour to adopt counter cyclical growth policies. The governments of developing countries smooth the expenditures, decline expenditures in peak and increase in trough (Thorton, 2008). One major hurdle in adopting counter cyclical fiscal policy is poor access to International Credit Markets, so the developing countries must manage substantial credit and International Financial Institutions also play their role (Riascos and Vegh, 2003). The role of institutions is important to adopt counter cyclical growth policies. In South Asian region institutions are not functioning well. So, it is required to modernize institutions and enhance their efficiency. One of the main reasons of weak performance of institution is poor governance. Governance must be improved to gain sustainable economic growth. Counter cyclical growth policies bring stability in the economy. In this way, the role of the government is significant, minimize expenditures in boom and increase in trough. Thus private sector performs efficiently. Therefore, employment, output and exports increase and people have more opportunities to live easy life.

## REFERENCES

- Abed, G.T. and Gupta, S. (2002). The Economics of Corruption: An Overview Governance, Corruption and Economic Performance, International Monetary Fund, [Online] Available: <http://www.imf.org/external/pubs/nft/2002/govern/>
- Acemoglu, D. and Johnson, S. (2005). Unbundling Institutions, *Journal of Political Economy*, 113(5), 949-995.
- Acemoglu, D., James, S.J. and Robinson, A. (2001). The Colonial Origins of Comparative Development: An Empirical Investigation, *The American Economic Review*, 91(5), 1369-1401.
- Acemoglu, D., Johnson, S., Robinson, J. and Thaicharoen, Y. (2003). Institutional causes, macroeconomic symptoms: volatility, crises and growth, *Journal of Monetary Economics*, 50: 49-123.
- Alesina, A., Campante, F. R. and Tabellini, G. (2008). Why is Fiscal Policy Often Procyclical?, *Journal of the European Economic Association*, 6(5), 1006-1036.
- Alesina, A., Ozler, S., Roubini, N. and Swagel, P. (1996). Political instability and economic growth, *Journal of Economic Growth*, 1(2), 189-211.
- Ali, A.M. and Crain, W.M. (2002). Institutional Distortions, Economic Growth Freedom and Growth, *Cato Journal* 21 (3), 415-426.

- Anderson, T. W. and Hsiao, C. (1982). Formulation and estimation of dynamic models using panel data, *Journal of Econometrics*, 18(1), 47-82.
- Arellano, M. and Bover, O. (1995). Another Look at the Instrumental Variables Estimation of Error Component Models, *Journal of Econometrics* 68, 29-51.
- Ayal, E.B. and Karras, G. (1998). Components of Economic Freedom And Growth: An Empirical Study, *Journal of Developing Areas*, 32(3), 327-338.
- Baltagi, B.H. (1981). Pooling: An Experimental Study of Alternative Testing in a Two-Way Errors Components Model, *Journal of Econometrics*, 17, 21-49.
- Barro, R. J. (1990). Government Spending in a Simple Model of Endogeneous Growth, *Journal of Political Economy*, 98(5), 103-125.
- Barro, R. J. and Lee, J.W. (1993). International comparisons of educational attainment, *Journal of Monetary Economics*, 32(3), 363-394.
- Beltrami, E. (1873). Sulle funzioni bilineari. In G. Battagline and E. Fergola (Eds.), *Giornale di Matematiche*, 11, 98-106.
- Bengoa, M. and Sanchez, R. B. (2003) Foreign direct investment, economic freedom and growth: new evidence from Latin America. *European Journal of Political Economy*, 19, 529-545.
- Blundell, R., and Bond, S. (1998). Initial Conditions and Moment Restrictions in Dynamic Panel Data Models. *Journal of Econometrics* 87, 11-143.
- Cingranelli D.L. and Richards, D.L. (2010). *Human Rights Data Project*, John Hopkin University. [Online] Available: [www.humanrightsdata.org](http://www.humanrightsdata.org)
- Cragg, J.G. and Donald, S.G. (1993). Testing Identifiability and Specification in Instrumental Variable Models. *Econometric Theory*, 9, 222 – 240.
- Dasgupta, P. (1990). Well Being and the Extent of its Realisation in poor countries, *Economic Journal*, 100, 1-32.
- Dawson, J.W. (1998) Institutions, investment, and growth: New cross-country and panel data, *Economic Inquiry*, 36(4), 603-619.
- De Haan, J. and Sturm, J.E. (2000). On the relationship between economic freedom and economic growth. *European Journal of Political Economy*, 16, 215-241.
- De Melo, M., Denizer, C., Gelb, A. and Tenev, S. (1997). Circumstance and choice: the role of initial conditions and policies in transition economies. *The World Bank Economic Review*, 15(1), 1-31.
- DeHann, J. and Siermann, C. (1995) A Sensitivity analysis of the impact of Democracy on Economic Growth, *Empirical Economics*, 20, 197-215.
- Dixit, A. (2009) Governance Institutions and Economic Activity. *American Economic Review*, 99(1), 5-24.
- Easterly, W. and Levine, R. (2003). Tropics, germs, and crops: the role of endowments in economic development, *Journal of Monetary Economics*, 50(1), 3-39.
- Easton, S.T. and Walker, M.A. (1997). Income, growth, and economic freedom, American economic growth, *Economic Review* 87(2), 328-332.

- Eichengreen, B. and Hagen, J. (1996). Fiscal restrictions and monetary union: Rationales, repercussions, reforms. *Empirica*, 23(1), 3-23.
- Falchetti, E., Raiser, M. and Safney, P. (2002). Defying the Odds: Initial Conditions, Reforms, and Growth in the First Decade of Transition. *Journal of Comparative Economics*, 30, 229-250.
- Gavin, M. and Perotti, R. (1997). Fiscal Policy in Latin America. *NBER Macroeconomics Annual*, 11-72. [Online] Available: <http://www.nber.org/chapters/c11036.pdf>
- Glaeser, E.L, Porta, R.L. and Slianes, P.L. (2004). Do Institutions Cause Growth. *Journal of Economic Growth*, 9,271-323.
- Goldsmith, A. (1997). Economic Rights and Government in Developing Countries: Cross National Evidence on Growth and Development. *Studies in Comparative International Development*, 32 (2), 29-44.
- Grigorian, D. and Martinez, A. (2000), Industrial growth and quality of institutions: what do (transition) economies have to gain from the rule of law? World Bank Working Paper, Washington, DC: World Bank.
- Guerson, A. (2003). On the Optimality of Procyclical Fiscal Policy when Governments are not Credible. Ph.D. dissertation, George Washington University.
- Gwartney, J., Lawson, R. and Block, W. (1996). *Economic Freedom in the World*. Data House 1975-1995.
- Haavelmo, T. (1943). The Statistical Implication of a System of Simultaneous Equations. *Econometrica*, 11(1), 1-12.
- Hall, R. and Jones, C. (1999). Why Do Some Countries Produce So Much More Output Per Worker Than Others? *Quarterly Journal of Economics*, 114 (1), 83-116.
- Hathroubi, S and Rezgui, S. (2011). Fiscal Policy Cyclicity in Developing Countries: Case of Tunisia. *Journal of Contemporary Research in Business*, 3(5), 41-62.
- Havrylyshyn, O., and Van Rooden, R. (2000). *Institutions Matter in Transition, But So Do Policies*, Washington: IMF Working Paper, WP/00/70.
- Heckelman, J.C. and Stroup, M.D. (2000). Which economic freedoms contribute to growth? *Kyklos*, 53, 527-544.
- Hotelling, H. (1933). Analysis of a complex of statistical variables into principal components. *Journal of Educational Psychology*, 24, 417-441.
- Ilzetzki, E. and Vegh, C. A. (2008). *Procyclical Fiscal Policy in Developing Countries: Truth or Fiction?*, NBER Working Papers 14191, National Bureau of Economic Research.
- International Monetary Fund (2005). *World Economic Outlook, September 2005: A Survey by the Staff of the International Monetary Fund*, World Economic and Financial Surveys , Washington.
- International Monetary Fund (2005b), *Fiscal Responsibility Laws*, Washington.
- Isham J., Kaufmann, D. and Pritchett, L. (1997). Civil liberties, democracy and the performance of government projects. *World Bank Economic Review*, 11(2), 219-242.

- Jordan, C. (1874). Mémoire due les formes bilinieares. *Journal de Mathématiques Pures at Appliquées, Deuxième Série*, 19, 35-54.
- Keefer, P. (2005). What does political economy tell us about economic development and vice versa. *Annual Review of Political Sciences*. 7, 247–72.
- Lane. P. R, (2003). Business Cycles and Macroeconomic Policy in Emerging Market Economies. *International Finance*, 6(1), 89-108.
- Levine, R, and Renelt, D. (1992). A sensitivity analysis of cross-country growth regressions. *American Economic Review*, 82(4), 942–963.
- Lledó, V., Yackovlev, I. and Gadenne, L. (2009). *Cyclical Patterns of Government Expenditures in Sub-Saharan Africa: Facts and Factors*, IMF Working Paper WP/09/274, Washington.
- Mpatswe, L.G., Tapsoba, S. J.A. and York, R. C. (2011). *The Cyclicality of Fiscal Policies in the CEMAC Region*, IMF working paper.
- Marcet A., Ravn, O. (2003). *The HP Filter in Cross Country Comparisons*. Economics, Working Papers 588, Department of, Economics and Business, Universitat Pompeu Fabra.
- Mauro, P. (1995). Corruption and Growth, *The Quarterly Journal of Economics*, 110 (3), 681-712
- Mises L.M. (2006). *Economic policy, Thoughts for today and tomorrow*, Ludwig Von Institute.
- Nanda, V. (2006). The Good Governance Concept Revisited. *Annals of the American Academy of Political and Social Science*, 603: 269-83.
- North, D.C. and Thomas, R. P. (1973). *The Rise of the Western World, A New Economic History*, New York: Cambridge University Press.
- Olson, M. (1993). Dictatorship, Democracy and Development, *American Political Science Review*, 87, 567–576.
- Pearson, K. (1901). On Lines and Planes of Closest Fit to Systems of Points in Space. *Philosophical Magazine*, 2(11), 559–572.
- Preisendorfer, R. W. and Mobley, C. D. (1988). *Principal Component Analysis in and Oceanography*. Amsterdam: Elsevier.
- Reinhart, C., Graciela, K. and Vegh, A. C. (2004). *When it rains, it pours: Procyclical capital ows and macroeconomic policies*. University of Maryland, College Park, Department of Economics.
- Riascos, A, and Végh, C. (2003). Procyclical Government Spending in Developing Countries: the Role of Capital Market Imperfections, Mimeo, UCLA and Banco Republica, Colombia.
- Rodrik, D. (2004). Institutions Role: The Primacy of Institutions over Geography and Integration in Economic Development. *Journal of Economic Growth*, 9, 131-165.
- Roodman, D. (2006). *How to do xtabond2: an introduction to Difference and System GMM in Stata*, Center for Global Development Working Paper Number 103.

- ROY, D. K. (2005). Governance and Development: The Challenges for Bangladesh, *The Bangladesh Development Studies*, 31(3), 99-136.
- Sachs, J. and Warner, A. (1995). *Economic convergence and economic policies*. NBER Working Paper 5039.
- Scully, G. W. (1988). The Institutional Framework and Economic Development. *Journal of Finance*, 52 (2), 737–83.
- Serven, L. (1998). *Macroeconomic uncertainty and private investment in developing countries - an empirical investigation*. Policy Research Working Paper Series 2035, The World Bank.
- Sharma, S.D. (2007). Democracy, Good Governance, and Economic Development. *Taiwan Journal of Democracy*, 3(1), 29-62.
- Stock, J. H. and Yogo, M. (2005). Testing for weak instruments in linear IV regression, In *Identification and Inference for Econometric Models: Essays in Honor of Thomas Rothenberg*, ed. D. W. K. Andrews and J. H. Stock, 80–108. Cambridge: Cambridge University Press.
- Talvi, E. C. Ve'gh, A. (2005). Tax base variability and procyclical fiscal policy in developing countries. *Journal of Development Economics*, 78, 156– 190.
- Thorton, J. (2008). Explaining Procyclical Fiscal Policy in African Countries. *Journal of African Economies*, 17(3), 451–464.
- Tornell, A. and Lane, P. (1998). Are windfalls a curse? A non representative agent model of the current account. *Journal of International Economics*, 44, 83-112.
- Tornell, A. and Lane, P. (1999). The Voracity Effect. *American Economic Review*, 89, 22-46.
- Von Hagen, J. and Harden, I. J. (1995). Budget Processes and Commitment to Fiscal Discipline. *European Economic Review*, 39, 771–779.
- Working, E. (1926). What do Statistical Demand Curves Show? *Quarterly Journal of Economics*, 41(2), 212-225.
- World Bank (2010). *World Development Indicators*. Washington, U.S.A