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The Role of Governance and Political institutions for Budget Deficit for Low and High Income Countries: A Panel Data Analysis

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Abstract:

This study has a major motivation to empirically find the fundamentals of budget deficit instability for the period 1984 to 2016 using panel data set of low and high income countries. All the countries included in the study are reported in the international monetary fund (IMF) Government financial statistic (GFS) and World Bank member countries.This study has tried to empirically evaluate the economic and political sources of budget deficit volatility.

This study has tried to empirically evaluate the economic and political sources of budget deficit volatility. This study first estimate the regression model by considering the panel characteristics of the data set and estimate the fixed effects and random effects models. Finally Hausman test is used to make a decision for the best fit model.

According to present study institutional variables are very important determinants of budget deficit, both in the regions of low and high income countries. The outcome indicates that the budget is more stable with the higher level of political stability. The Budget deficit has more fluctuations if higher level of corruption coexists.

This study contributes to the literature for institutional setup and budget deficit and reached to the conclusion that to avoid high and unstable deficit attention should be diverted to improve institutional setup of the economy.

Keywords: Pubic Policy, Macroeconomic stability, Fiscal deficit, Panel data, South Asia & Asean

JEL code: H5, H6, H3, H4.

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1. Introduction

The developed and developing countries have a crucial challenge of persistently increasing budget deficits and its volatility for numerous reasons. First, enormous deficit instability is a failure of fiscal policy because it becomes impossible to suggest at what time and degree of fiscal policy be implement and this leads to become decision making ineffi cient. Second, government spending volatility may be a consequence of the budget deficit instability and the distortions in the form of wasteful spending made by short-term methods to encounter these variations in expenditure. Third, high budget deficit volatility may also be a reason for capital loss in the form of short term investment projects. In modern times the degree of government budget deficits and debt became the most prominent issues in economics on which a lot of discussions are made. Instable fiscal deficits may be damaging to social welfare because past literature has widely shown that fiscal debt is negatively associated with the long run fiscal balance of the economy so future generation may suffer very easily (Alesina and Perotti, 1996; Woo, 1996; Alesina and Rodrik, 1994 and Persson and Tabellini, 1994). In the earlier times budget deficits were considered only as an economic issue but beginning of political economics in 1980s gave a realization to researchers to observe this subject both from viewpoints of economic and political perspective.

After the first oil crisis in 1973 many industrialized countries had been facing the problem of significant high budget deficits and interesting is the fact even in the prosperous years countries were facing problem of budget deficit when there was high growth of income whereas according to the economic theory the deficits should be low during the time when there is high economic growth. As a result, in the times of high economic growth the magnitude of debt have been accumulated progressively, and more interesting is the fact, even countries are facing similar economic shocks, the amount of deficits and debt varying in magnitude as vary the number of country. The key emphasis of the current study is to empirically examine the foundations of deficit volatility for low and high income countries using panel data for the period 1984 to 2016. The present study is focusing on the economic political and institutional factors that cause instability in budget deficits. The current study also draws attention of the economists towards effects of trade openness and inflation on budget deficit instability. The analysis includes the impact of political instability on the budget deficit instability. The current study is arranged as follows. The theoretical and empirical overview on this area presents in Section 2. Section 3 presents the methodology and data. The empirical results are discussed in section 4 and last section concludes the study.

2. An Overview of the Budget Defict Framework

The topic of budget instability is very broad because the literature can be considered according to various political variables. In the recent times the description of particular political explanatory variables e.g. political stability, size of government,

fragmentation of government, type of budgetary procedures, negotiation power of unions etc. has received substantial consideration (Roubini and Sachs (1989) and De Haan and Sturm (1994). The budget deficit and surpluses may help to minimize spending and revenue shock if tax rate is constant over time Barro (1979) and Lucas and Stokey (1983). Over the last thirty years majority of developed and developing countries are facing persistence rise of fiscal deficits. Many countries are facing a major challenge in the form of damages of high fiscal deficit and its volatility. The subject of budget deficit and its determinants is widely theoretically and empirically studied. Nevertheless, A lot of efforts still required in the area of instability of budget deficit. The current section analyses few significant studies on this subject of interest. The association of political variables and fiscal response found in Person (2001) and Person and Tabellin (2001). The evidence is also found for low anti cyclical fiscal policy in electoral years Hallerberg and Strauch (2002) and Sorensen *et al.*(2001). Governments determine both debt and future entitlements Bouton, Lizzeri and Persico (2017). While Alesina and Drazen (1989) highlight that political fragmentation is a reason of high cost and delayed fiscal implementation of rules. Tabellini and Alesina (1990) show that parties have excessive spending if they risk losing the elections. Lizzeri (1999) also describes that competition of political party results in fiscal deficit. Azzimonti, Battaglini and Coate (2016) have given a recent analysis of legal methods to handle unnecessary deficits constructed on the dynamic judicial bargaining model in Butters and Coate (2008).

Azzimonti, Battaglini and Coate (2016) claim that short run costs and long run benefits are associated with balanced budget rule and it may offset costs of fiscal deficit. According to economists remarkably high fiscal deficits are permissible only if are supported by a parliament Supermajority. The same argument is also supported by Becker, Gersbach, and Grimm (2010). Gr*u*ner.(2017) also paid attention on public expenditure decisions of fiscal policymakers and on political parties bargain for budget. Roubini and Sachs (1989a, b) gave a stress to association between fiscal deficit and the fragmentation with positive relationship. Edin and Ohlsson (1994) disclose that this conclusion provided by Roubini and Sachs (1989a, b) may be a consequence of classification and measurement of the variable because it captures government fragmentation. Edin and Ohlsson (1994) claims that only minority governments has more trend to grow huge deficits. On the other hand, Andrikopoulos *et al.* (2004) explore that during elections right wing government pay focus to fiscal stabilization. Alesina and Roubini (1997) found no evidence of higher deficit for left wing government. Colombo and Tirelli (2011) study a wider set of variables that simultaneously affect the GDP growth and the government spending .The collected works on the current issue suggests that more efforts are required to find out the sources of instability of budget deficit so it is better to resolve the issue if focus not only on economic variables but also to see the reality from political perspective.

3. Providing an Improved Methodological Framework and Data

The theoretical framework put forward the following empirical hypothesis that the economic and political instability is associated with budget deficit. So this section investigate whether or not this hypothesis is accepted by the empirical support. The current study start analysis by application of panel data models on equation 1 presented below. The data covers for the low and high income countries ranging from 1984 to 2016 and the panel is unbalanced for estimation of budget deficit volatility. The current study is based on the theoretical work of Alesina and Perotti (1995) and Person and Tabellini (1997) and empirical work of Woo (2003) and Henisz (2004). These studies paid attention to the part of institutions which is important for proficient economic activity.The empirical specification in dynamic panel data models to identify the features defining the instability of budget deficit is specified below:

$$BDV_{it} =_{i} \alpha BDV_{it-1} + \beta ECON_{it} + \gamma INST_{it} + \delta C_{it} + v_i + \varepsilon_{it} \quad (1)$$

In the above equation volatility of budget deficit for the country *i* for the period t is denoted by BDV, economic variables are denoted by $ECON_{it}$, political and institutional variables are denoted by $INST_{it}$,and control variables which record country special features C_{it} .The economic variables for the current study includes budget deficit which is used as a percentage of GDP, trade openness, per capita real GDP and inflation. The reason for the selection of real GDP per capita is to record the varying level of economic development among the countries. The population growth controls for the size of country effects.The explanatory variables that measure the effect of political instability are included as political stability, socio economic condition, investment profile, Internal conflict, external conflict, corruption, ethenic tension, democratic accountability, Bureaucracy quality, religion in politics, military in politics and law and order. The Current study is carried out for the sample of low and high income countries for the period 1984 to 2016 using the Fixed Effect and Random Effect Model. Finally to make a choice between fixed effects and random effects approach Hausman test is applied. The general econometric representation of the equation for the inclusion of theoretical variables is as follows:

$$BDV_{it} = \beta_0 + \beta_1 ECON_{it} + \beta_2 INST_{it} + \beta_3 C_{it} + \varepsilon_{it} \quad (2)$$

In the above equation volatility of budget deficit is shown by BDV. In this equation *i* represent country and time period denoted by t, as this is a panel data study. The Economic variables are denoted by $ECON_{it}$. The political and institutional variables are denoted by $INST_{it}$ *and* finally control variables which record country special features are denoted by C_{it}.The estimators of fixed effects are also identified as the estimator of least-squares dummy variables (LSDV). In this model each group comprises a separate dummy variable to have different constants for each group. A fixed effects model may be arrange as follows to combine effects which are particular to a country.

$$BDV_{it} = \alpha_{it} + \beta_1 ECON_{it} + \beta_2 INST_{it} + \beta_3 C_{it} + u_{it} \quad (3)$$

In the above equation: $\boldsymbol{\alpha_{it}}$ is a country effects depending on time. There is another method to estimate the model namely random effects model. Random effect method holds the constants for each unit not as fixed but random parameter and this is the major differentiation of the two models.

3.1 Data and Sample

The current study has collected data for economic variables and political variables using panel data from 1984 to 2016 for low and high income countries .This study has taken sample of 30 low income 59 high income countries. The selection of sample depends upon the availability of data set. Economic variables are obtained through international financial statistics (IFS) and world development Indicators (WDI). The source of political variables is International Country Risk Data Guide (ICRG). The current study is using several economic variables like ratio of budget deficit to GDP, real GDP per capita, Trade openness and inflation. The reason behind to include inflation variable is to confirm the expected positive relationship between budget deficit and inflation. The ratio of trade to GDP represents trade openness and it captures the external shocks. The population growth is used as a control variable to capture the effect of country size of each country. The political variables such as government/Political stability, socio economic condition, investment profile, Internal conflict, external conflict, corruption, ethnic tension, democratic accountability, Bureaucracy quality, religion in politics, military in politics and law and order are included to find out the impact of governmental uncertainty on budget deficit volatility. This study is using political index and it is provided by International country Risk Data Guide.In this index lower total risk is shown by high risk point and higher total risk is shown by lower risk point.

4. Empirical results and discussion

In this section we run panel regression for two group of countries. The groups are comparatively homogeneous regarding the structures and conditions of the economy. The grouping of countries into low and high income countries is done on the basis of definitions provided by World Bank. Low income group contains countries that are categorized as low income and Lower-middle income countries, on the basis of per capita income by World Bank. While high income group contains the countries that are categorized as high middle income and higher income countries, on the basis of per capita income by World Bank. This study has taken sample of 30 low income 59 high income countries. The selection of sample depends upon the availability of data set. The estimates of fixed and random effect for low income countries are shown in Table 1 and Table 2 respectively.

Table 1: *Fixed effect for Low income countries*

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13
GDP per Capita	0	0	0.0002	0.000000002	0	0	0	0	0	0	0	0	0
	(8.19*)	(8.01*)	(8.15*)	(9.48*)	(9.39*)	(9.24*)	(9.19*)	(8.93*)	(9.11*)	(8.78*)	(8.76*)	(7.86*)	(8.45*)
Inflation	0	-0.00000001	0.0000001	0	-0.00000002	0	0	0	0	0	0	0	0
	-0.12	(-0.01)	-0.12	-9.48	(-0.02)	(-0.02)	(-0.32)	-0.25	(-0.24)	(-0.29)	(-0.28)	-1.127	-1.09
Population	-0.0002	-0.00003	-0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.003	0.002
	-0.217	-0.02	(-0.20)	-0.86	-0.95	-1.01	(1.40***)	(1.37***)	(1.47***)	(1.70***)	(1.96**)	(2.79*)	(2.62***)
Openness	-0.005	-0.004	-0.006	-0.009	-0.01	-0.009	-0.002	-0.002	-0.001	-0.001	-0.001	-0.002	-0.004
	(-0.79)	(-0.73)	-0.93	(1.47***)	(-1.91**)	(1.36***)	-0.5	(-0.47)	-0.23	(-0.37)	(-0.22)	-0.5	(-0.77)
Corruption			0.0002	0.0001	0.0004	0.0005	-0.0007	-0.0006	-0.0006	-0.001	-0.001	-0.002	-0.002
			-0.37	-0.22	-0.54	-0.75	(-0.95)	(-0.79)	(-0.75)	(-2.19**)	(-2.25**)	(-2.70*)	(-2.68*)
Socioeconomic Condition				-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.002	-0.003	-0.002	-0.002
				(5.88*)	(7.08*)	(-6.22***)	(7.50*)	(-7.16*)	(7.24*)	(-5.70*)	(-6.47*)	(-4.13*)	(-4.21*)
Political Stability		-0.0006		-0.0007	-0.0008	-0.0006	-0.0009	-0.0009	-0.0007	-0.0005	-0.0005	-0.0006	-0.0005
		(-2.95*)		(3.05*)	(3.22*)	(-2.68***)	(3.71**)	(-3.54**)	(-2.22**)	(-1.53***)	(-1.44***)	(-1.64***)	(-1.52***)
Military in Politics					0.002	0.002	0.002	0.001	0.001	0.0005	0.0006	-0.0005	0.0008
					(1.98**)	(1.96**)	(1.81**)	(1.58***)	(1.56***)	-0.52	-0.51	(-0.44)	(-0.72)
Internal Conflict						-0.0005	-0.001	-0.001	-0.0008	-0.001	-0.001	-0.001	-0.0001
						(1.56***)	(-3.24*)	(-3.23*)	(-2.23**)	(-3.71*)	(-3.75*)	(-3.88*)	(3.57*)
External Conflict							0.001	0.001	0.002	0.001	0.001	0.001	0.001
							(3.66*)	(3.43*)	(3.74*)	(2.84*)	(-1.75***)	(2.87*)	(2.69*)
Investment Profile								0.0003	0.0001	0.0002	0.0001	-0.0008	-0.0009
								-0.66	(0.23	-0.61	-0.35	(-1.83***)	(-1.97***)
Ethnic Tension									-0.001	-0.001	-0.001	-0.002	-0.002
									-1.18	(-1.56***)	(-1.75***)	(-3.10*)	(-3.38*)
Democratic Accountability										0.004	0.004	0.004	0.004
										(6.01***)	(6.06*)	(6.31*)	(6.64*)
Law and Order											0.001	0.001	0.001
											-0.83	(1.47***)	(1.52***)
Bureaucracy Quality												0.01	0.01
												(5.90*)	(5.73*)
Religion in Politics													0.001
													-0.95
R2		0.82	0.82	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83

The * indicates significant at 1%, ** indicates significant at 5% & ***indicates significant at 10%.

The equation of fixed effect model for low income countries in the table:1 explain that Corruption, socioeconomic condition, political stability, Internal conflict and ethnic tension has strong association with budget deficit.

Table 2: *Random effect for Low income countries*

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13
GDP per Capita	0	0	0	0	0	0	0	0	0	0	0	0	0
	(-0.20)	(-0.08)	-0.01	-0.04	-0.04	-0.05	-0.08	-0.06	-0.08	-0.05	-0.05	-0.05	-0.09
Inflation	0	0	0	0	0	0	0	0	0	0	0	0	0
	(-0.04)	-0.07	(-0.06)	-0.04	-0.13	-0.13	-0.24	-0.4	-0.4	-0.42	-0.42	-0.46	-0.45
Population	-0.002	-0.002	-0.003	-0.004	0.006	0.006	0.008	-0.003	0.003	0.005	0.006	0.005	0.005
	(-0.53)	(-0.07)	(-0.11)	(-0.14)	-0.23	-0.23	-0.28	(-0.12)	-0.11	-0.17	-0.21	-0.15	-0.15
Corruption			-0.005	-0.004	-0.003	-0.003	-0.006	-0.003	-0.002	-0.006	-0.006	-0.004	-0.003
			(-0.34)	(-0.300)	(-0.22)	(-0.23)	(-0.40)	(-0.18)	(-0.15)	(-0.34)	(-0.35)	(-0.20)	(-0.19)
Socioeconomic Condition				-0.003	-0.008	-0.007	-0.006	-0.01	-0.01	-0.008	-0.01	-0.008	-8
				(-0.16)	(-0.40)	(-0.38)	(-0.30)	(-0.52)	(-0.53)	(-0.41)	(-0.45)	(-0.37)	(-0.3)
Political Stability		0.01		0.013	0.01	0.01	0.01	0.009	0.008	0.01	0.009	0.01	0.011
		-0.92		-0.91	-0.95	-0.92	-1.1	-0.58	-0.48	-0.58	-0.53	-0.6	-0.61
Military in Politics					0.003	0.03	0.04	0.03	0.03	0.03	0.02	0.03	0.03
					(1.73***)	(1.62***)	-1.83	(1.54***)	(1.37***)	-1.207	-1.02	-1.15	-1.05
Internal Conflict						-0.001	0.005	0.003	0.0006	0.0005	0	0.0007	-0.001
						(-0.11)	-0.31	-0.19	-0.03	-0.03	(-0.01)	(-0.03)	(-0.05)
External Conflict							-0.02	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
							(-1..32***)	(-1.61)	(-1.59***)	(-1.69***)	(-1.72***)	(-1.73***)	(-1.74)
Investment Profile								0.02	0.02	0.02	0.02	0.02	0.03
								(1,53***)	(1.57***)	(1.56***)	(1.58**)	(1.57***)	(1.59***)
Ethnic Tension									0.01	0.009	0.007	0.009	0.009
									-0.4	-0.36	-0.29	-0.34	-0.32
Democratic Accountability										0.01	0.01	0.02	0.02
										-0.57	-0.62	-0.72	-0.68
Law and Order											0.01	0.008	0.009
											-0.3	-0.24	-0.23
Bureaucracy Quality												-0.03	-0.03
												(-0.73)	(-0.66)
Religion in Politics													0.004
													-0.14
Hausman Test	0.83	0.83	0.92	0.82	0.9	0.9	0.92	0.67	0.75	0.77	0.81	0.86	0.91

The * indicates significant at 1%, ** indicates significant at 5% & *** indicates significant at 10%.

According to table: 1 budget deficit is positively and significantly associated with real GDP per capita(Wu, Feng and Li, 2015). This may be due to the developmental projects of the country, Fatas and Mihov(2006; 2010) and Woo (2003). The result shows that the budget volatility and population growth has a positive relationship. The equation of Random effect model for high income country in Table 2 has shown

that corruption, socio economic condition and external conflicts has a strong association with budget deficit. The equation of random effect model for low income countries has shown Gdp per capita and inflation has positive association with budget deficit but it is not significant.The estimates of fixed and random effect for high income countries are shown in Table 3 and Table 4 respectively. The equation of fixed effect model for high income countries in the table:3 has shown that corruption, socio economic condition, political stability, military in politics, external conflicts, investment profile and ethnic tension has strong negative association with budget deficit.

Table 3: *Fixed effect for High income countries*

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13
GDP per Capita	0 (3.69*)	0 (-3.37*)	0 (-3.55*)	0 (-3.42*)	0 (-3.36*)	0 (-3.36*)	0 (-3.36*)	0 (-3.35*)	0 (-3.42*)	0 (-3.42*)	0 (-3.35*)	0 (-3.42*)	0 (-3.34*)
Inflation	0.0004 (1.807*)	-0.001 (-1.37***)	0.0008 (1.84**)	-1.52 (-1.51***)	0.001 (1.37***)	0.001 (1.47***)	0.001 (1.52*)	0.001 (1.64*)	0.002 (1.96*)	0.002 (2.04*)	0.002 (2.04**)	0.002 (2.25*)	0.002 (1.69***)
Population	-5.04 (-3.65*)	-2.19 (-2.37*)	-2.17 (-2.46*)	-541 (-0.87)	-1.45 (-2.49*)	-1.33 (-2.59*)	(-1.68) (-2.49*)	-1.44 (-2.22*)	-1.38 (-2.34*)	-1.47 (-2.38*)	-1.73 (-2.29**)	-1.79 (-2.38*)	-2.43 (-2.26*)
Openness	0.07 (3.07*)	0.18 (3.12*)	0.17 (3.28*)	0.18 (3.16*)	0.18 (3.11*)	0.18 (3.11*)	0.18 (3.11*)	0.18 (3.10*)	0.18 (3.17*)	0.18 (3.17*)	0.18 (3.10*)	0.18 (3.17*)	0.18 (3.10*)
Corruption			-4.94 (-2.81*)	-1927 (2.44*)	-7 (-2.79*)	-7.26 (-2.76*)	-6.96 (-2.68*)	-8.45 (-2.61*)	-6.78 (-2.63*)	-6.88 (-2.68*)	-8.11 (-2.73*)	-8.09 (-2.70*)	-10.2 (-2.81**)
Socioeconomic Condition				-482 (-0.44)	-0.23 (-1.02)	-0.24 (-1.1)	-0.04 (-2.68*)	1.419 (2.04*)	1.1 (1.92**)	1.147 (1.96*)	0.59 (1.28***)	0.59 (1.32***)	0.08 -0.22
Political Stability		-1.57 (-2.09**)		-2273/ (-3.16*)	-1.34 (-2.31*)	-1.5 (-2.27*)	-1.78 (-.2.32*)	-0.87 (-1.78*)	-0.64 (-1.66**)	-0.62 (-1.63***)	-0.74 (-1.60***)	-0.744 (-1.67**0	-0.55 (-1.34***)
Military in Politics					0.01 -0.05	-1.38 (-1.61***)	-1.74 (-1.77*)	-1.15 (-1.37***)	-0.99 (-1.27)	-1.26 (1.51***)	-2 (-1.90*)	-0.011627907 (-1.77**)	-1.15 (-0.95)
Internal Conflict						1.23 (1.41***)	1.45 (1.53*)	1.7 (1.67***)	2.85 (2.40*)	2.717 (2.306*)	1.68 (1.70**)	1.8 (1.8***)	2.05 -2.05
External Conflict							-0.91 (-0.72)	-1.28 (-1.16)	-1.33 (-1.43***)	-1.28 (-1.40***)	-2.017 (-1.90**)	-2.02 (1.92**)	-2.34 (-1.90**)
Investment Profile								-2.13 (-2.42*)	-1.73 (-2.58*)	-1.85 (-2.75*)	-1.8 (-2.64*)	-1.77 (-2.65**)	-1.76 (-2.75**)
Ethnic Tension									-1.81 (-1.94**)	-1.718 (-1.90*)	-3.55 (-2.72*)	-3.57 (-2.82***)	-3.61 (-2.71
Democratic Accountability										0.93 (1.32***)	0.57 -0.92	0.92 -1.2	-0.08 (-0.08**)
Law and Order											7.94 (2.90*)	7.98 (3.03*)	9.14 (3.26**)
Bureaucracy Quality												-0.97 (-0.67	0.76 -0.34
Religion in Politics													-1.41 (-0.56)
R2		0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98

The * indicates significant at 1%, ** indicates significant at 5% & *** indicates significant at 10%.

The estimates of fixed effect model for high income countries has shown that inflation and GDP per capita has a positive and significant association with budget deficit. The result shows that the budget volatility and population growth has a negative relationship. The results of fixed effect model show that trade openness have insignificant positive association with budget deficit(Agnello and Sausa ,2009 and Fatas and Mahov, 2010). The equation of Random effect model for high income countries in table:4 has shown that socio economic condition, political stability,investment profile and ethnic tension has negative association with budget deficit but it is not significant. The equation of random effect model for high income countries has shown GDP per capita is negatively and significantly associated with budget deficit. Trade openness has a positive and significant association with budget deficit.

Table 4: *Random effect for High income countries*

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13
GDP per Capita	0 (-68.92*)	0 (-69.01*)	0 (-68.69*)	0 (-68.50*)	0 (-59.75*)	0 (-68.317*)	0 (-68.29*)	0 (-68.107*)	0 (-68.098*)	0 (-68.21*)	0 (-67.94*)	0 (-67.909*)	0 (-67.99*)
Inflation	-0.48 (-0.06)	-1.56 (-0.20)	-0.43 (-0.05)	-1.67 (-0.22)	-1.56 (-0.18)	-1.16 (-0.15	-1.29 (-0.17)	-1.608 (-0.21)	-1.63 (-0.21)	-1.3 (-0.17)	-1.36 (-0.18)	-1.33 (-0.17)	-0.69 (-0.09)
Population	-133.96 (-0.10)	-60.22 (-0.04	-107.72 (-0.08)	12.6 -0.009	239.82 -0.14	389.27 -0.27	408.09 -0.28	265.74 -0.18	301.24 -0.207	426.6 -0.28	460.75 -0.3	433.89 -0.28	150.94 -0.09
Openness	0.35 (126.05*)	0.36 (126.18*)	0.35 (125.29*)	0.35 (125.11*)	0.35 (109.12*)	0.35 (124.82*)	0.35 (124.78*)	0.35 (124.54*)	0.35 (124.46*)	0.35 (124.57*)	0.35 (124.25*)	0.35 (124.20*)	0.35 (124.37*)
Corruption			556.98 -0.5	865.44 (0.68	669.9 -0.44	536.28 -0.4	534.71 -0.39	150.74 -0.1	179.7 -0.12	580.64 -0.41	-251.76 (-0.14)	-595.56 (-0.32)	-252.51 (-0.13)
Socioeconomic Condition				-295.82 (-0.32)	-460.48 (-0.40)	-478.94 (-0.48)	-468.59 (-0.47)	65.5 -0.05	28.17 -0.02	-512.98 (-0.50)	-83.25 (-0.06)	-258.37 (-0.202)	-314.54 (-0.24)
Political Stability		-903.46 (-1.12)		-861.38 (-1.007)	-910.76 (-0.922)	-1030.49 (-1.16)	-1024.032 (-1.15)	-770.93 (-0.82)	-739.7 (-0.78)	-1018 (-1.13)	-661.95 (-0.67)	-651.37 (-0.66)	-519.05 (-0.52
Military in Politics					725.34 -0.43	318.02 -0.19	245.22 -0.14	421.94 -0.25	445.65 -0.26	265.5 (0.15	257.68 -0.14	112.11 -0.06	192.96 -0.1
Internal Conflict						637.63 -0.57	543.79 -0.45	489.08 -0.41	649.16 -0.51	648.71 -0.51	437.12 -0.31	469.51 -0.34	732.03 -0.52
External Conflict							260.76 -0.21	250.17 -0.21	295.72 -0.24	290.81 -0.24	356.1 -0.29	349.39 -0.28	562.51 -0.46
Investment Profile								-768.49 -0.82	-823.31 (-0.87)	-905.67 (-0.19)	-906.24 (-0.91)	-938.72 (-0.94)	-903.63 (-0.906)
Ethnic Tension									-561.04 (-0.37)	-509.08 (-0.33)	-567.32 (-0.37)	-452.5 (-0.29)	-101.05 (-0.06)
Democratic Accountability										410.7 -0.26	460.59 -0.29	262.65 -0.16	373.85 -0.23
Law and Order											745.52 -0.39	532.22 -0.27	367.63 -0.18
Bureaucracy Quality												1357.94 -0.46	1165.73 (0.39
Religion in Politics													-1954.97 (-1.09)
Hausman Test	0	0	0	0	0	0	0	0	0	0	0	0	0

The * indicates significant at 1%, ** indicates significant at 5%, *** indicates significant at 10%.

The Hausman test statistic for low income countries and high income countries are presented in table:5 to compare the results of fixed effect with the random effect. According to table:5 random effect is better for the low income countries. The fixed effect model is the best fit model for the high income countries as shown by the P value = 0.00. Hausman test statistic is very small so we can conclude the difference between the estimates is insignificant and use fixed effect model and reject the null hypothesis which represents consistency of random effect model.

Table 5: *Hausman Test Statistic*

	Test Statistics	P Value
Low Income Countries	$x^2 = 8.95$	0.91
High Income Countries	$x^2 = 586.31$	0

5. Conclusion

The current study has a major objective to examine not only economic determinants of budget deficit but also to focus on political variables for Low income and high income countries of the world for 1984 to 2016.The current study concludes that corruption, conflicts and political stability are important indicators of budget deficit both for low and high income countries. According to present study institutional variables are very important determinants of budget deficit in the regions of low and high income countries. The outcome indicates that the budget is more stable with the higher level of political stability. The Budget deficit has more fluctuations if higher level of corruption coexists. So to avoid high and unstable deficit attention should be diverted to improve institutional setup of the economy.

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