

Economic, Political and Institutional Determinants of Budget Deficits Volatility in Selected Asian Countries

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Abstract

In the present study the economic, political and institutional sources of budgets deficits are analyzed for two regions South Asia and ASEAN countries for the period 1984 to 2010. The results reveal that high income, rising inflation and large budget to GDP ratio are associated with budget instability, where as a strong inertia in budget deficit volatility exists. The exposure of more external shocks make the budget deficit more volatile, however, countries with high population growth have less volatile budget deficits. The results indicate that high level of political stability and democracy and improvement in social and economic condition reduces the budget deficit volatility. High corruption and low institutional quality lead to more fluctuations in the budget deficit. The results suggest that political and institutional factors have a direct impact on fiscal instability beyond the economic reasons to effect fluctuations. The results of the current study leads to important implication that by improving the quality of institutions, creating situations for economic stability and moving towards democratic regimes would ensure more stable fiscal deficits and resultantly positive effect on the long term economic growth

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INTRODUCTION

The extent of government deficits and debt has been one of the most debated issues in economics in recent years. High and volatile fiscal deficits may be harmful to welfare, for instance, debt-to-GDP ratio is negatively related with the long run fiscal sustainability, therefore, affecting the living standards of future generation (Alesina and Perotti, 1996; Woo, 1996; Alesina and Rodrik, 1994 and Persson and Tabellini, 1994). High and volatile deficit may also increase the level and volatility of inflation since central bank is deficient in independence (Fata and Mihov, 2010). Many academics have tried to understand the determinants of the large public deficits, but unfortunately the literature on fiscal deficit volatility is rare.

Budget deficits were initially considered to be a merely macroeconomic phenomenon, but starting from the 1980s due to emergence of political economics, researchers have considered this issue from both economic and political perspectives. Further, the fact that many industrialized countries had been facing considerable budget deficits following the first oil crisis in 1973 and these deficits increased persistently over the following decades of high growth whereas the economic theory suggests these deficits should reduce during more prosperous times. As a consequence, the debt levels have been increasing steadily over the same period, and interestingly the deficits and debt level varies in size among various countries even facing similar economic shocks. In order to explain the cross-country differences for deficits and debt levels, the existing normative economic theory alone may not be considered sufficient. Therefore, political variables, such as the political stability, law and order, and institutional factors, like democracy, are included as an additional explanatory variable in models that have tried to give a

positive explanation for the observed patterns in deficits (Woo, 2003 and Fatas and Mihov, 2010).

In addition to the persistently increasing budget deficits its volatility is also a major challenge for many developed and developing countries for several reasons. First, due to high deficit volatility, it is not possible to predict the timing and magnitude of fiscal policies and this generates inefficiency of economic decision making. Second, the fiscal deficit volatility may also cause the government spending volatility and the distortions created by temporary or infrequent measures to meet these fluctuations in spending. When government spending volatility depends on fiscal deficit volatility, the quality and efficiency of the government services: health or education may also be reduced. Third, high fiscal deficit volatility may divert investment towards short term investment projects and leads to irreversible human capital losses. High deficit volatility may lead to high volatility of interest rates which represents a financial burden for investments. The pursuit for models explaining budget deficits from a positive viewpoint has considerably achieved attention over the last three decades; however, the search for models for budget deficit volatility is slightly new issue.

The major focus of the present study is to empirically investigate the sources of fiscal deficit volatility for South Asian and ASEAN countries for the period 1984 to 2010. The study adds to existing literature by examining the economic political and institutional factors that causes instability in budget deficits. The persistence in budget deficit volatility is captured by lag budget deficit volatility in the model. The study highlights the effect of increased openness and high inflation on budget deficit volatility analysis. The analysis include the quantitative and qualitative role of political instability on the budget deficit instability in general, the role of

institutions: democracy and some governance variables: corruption, law and order and conflicts in particular. The sample of the countries include four major South Asian countries: Pakistan, Bangladesh, India and Srilanka and five major ASEAN countries: Indonesia, Malaysia, Thailand, china, Philippines as these countries have common characteristics of large and persistent as well as instable budget deficit.

The study is organized as follows. Section 2 discusses the theoretical and empirical literature on this area. In section 3 the overview of the fiscal deficit in these two regions is discussed briefly. The methodology and data is presented in section 4. The empirical results are discussed in section 4 and last section concludes the study.

LITERATURE REVIEW

A common feature of fiscal behavior in the majority of developed and developing countries over the last thirty years is the persistence rise of fiscal deficits. In addition to the damages of high fiscal deficit, its volatility is also a major challenge for many countries. The issue of budget deficit and its determinants is extensively empirically examined; however, the instability of budget deficit is not seriously investigated. This section reviews some of the relevant literature in this area.

The literature on this issue can be categorized according to the various politically oriented variables as e.g. political stability, size of government, fragmentation of government vs. institutional factors, type of budgetary procedures, negotiation power of unions etc. The definition of particular explanatory variables has received considerable attention (Roubini and Sachs (1989) and De Haan and Sturm (1994). The equilibrium model proposed by Barro (1979) and Lucas and Stokey (1983) argues that in order to minimize distortions, tax rates should be

relatively constant over time and therefore spending and revenue shocks should be smoothed by budget deficits and surpluses. However, tax-smoothing' model does not explain why there is rise and persistence of the budget deficits that emerged following the oil crises in the 1970s, and neither why countries facing similar economic shocks experienced varying levels of fiscal deficits. Alesina and Perotti (1995 and 1996b) argue that economic theory alone cannot explain this issue; one should therefore try to resolve in the perspective of political and institutional aspects of the question. In this framework, Persson (2001) and Persson and Tabellini (2001) find that political and institutional variables also matter for fiscal responsiveness. Hallerberg and Strauch (2002) and Sorensen *et al.* (2001) argue that fiscal policy is less anti-cyclical in election years. Lane (2003) shows that countries with volatile output and dispersed political power are the most likely to run pro-cyclical policies. Fatas and Mihov (2003, 2006) find that strict budgetary constraints lead to lower policy volatility and reduce the responsiveness of fiscal policy to output shocks. Alesina and Tabellini (2008) suggest that most of the pro-cyclicality of fiscal policy in developing countries can be explained by high levels of corruption. Afonso *et al.* (2008) show that while country and government sizes and income have negative effects on the discretionary component of fiscal policy, they tend to increase fiscal policy persistence.

As regards institutions, Persson and Tabellini (1999) find that majoritarian elections lead to more redistribution and larger governments and that presidential regimes lead to less redistribution and smaller governments. Under presidential systems the government is more transparent and independent centralized authority (Shugart and Carey, 1992). Hence, economic policy can be formulated and implemented without much delay or interference. The opposite may be true of the parliamentary system, depending on the electoral laws and their degree of proportionality. Therefore, fiscal outcomes may be different across regimes (presidential versus parliamentary)

and electoral systems (proportional versus majoritarian). Alesina and Perotti (1995) and Persson and Tabellini (1997) find that large deficits and debts have been more common in countries with proportional rather than majoritarian and presidential electoral systems. In countries with coalition governments and frequent government turnovers, and in countries with lenient rather than strict budget processes. Henisz (2004) suggests that the presence of institutional checks and balances may improve economic outcomes. Woo (2003) emphasizes the role of political factors (government fragmentation, political instability and institutions), social polarization (ethnic division and income inequality), and institutional factors (budgetary procedures and rules, bureaucratic, efficiency, and democracy). Leachman *et al.* (2007) show that fiscal performance is better when fiscal budgeting institutions are strong.

The empirical evidence on the relationship between income inequality and fiscal deficit is limited. Woo (1999) provides the first econometric evidence that income inequality is a significant determinant of public deficits. Alesina and Perotti (1996a) find evidence that income inequality increases political instability. Alesina and Rodrik (1994) and Persson and Tabellini (1994) suggest that there may be a tendency of the majority to vote for large redistributive spending in a democratic country with an unequal income distribution. Woo (1999) develops a model of fiscal deficits in which the polarization of preferences play a decisive role. In a highly polarized society, policymakers face greater incentives to maintain higher spending for their preferred sectors, leading to larger deficits.

Roubini and Sachs (1989a, b) focus on the relationship between deficits and the structure of the governments (fragmentation) and conclude that the deficits do tend to be positively associated with the fragmentation. Edin and Ohlsson (1994) reveal that the former conclusion may be due to

the definition and dimension of the variable, capturing government fragmentation, claiming that only minority governments have a particular tendency to develop large deficits, and differences between majority governments with different numbers of participating parties are insignificant. De Haan and Sturm (1994) find support for neither of the two hypotheses; conclude that there are no significant differences in explanatory power among single party, majority governments, coalition governments and minority governments. Edin and Ohlsson (1991) and Kontopoulos and Perotti (1999) argue that minority governments are associated with larger deficits. Minority governments attributes lack of coordination because there are more participants in the decision making process. A deficit can arise in this situation because individual policymakers fail to internalize the full cost of their own spending financed through common tax revenues.

The political business cycles approaches and the partisans theories indicate how politicians influence macroeconomic outcomes. One implication of the political business cycle theories (Nordhaus 1975, Rogoff and Sibert 1988, Rogoff 1990, among others) is that all politicians will implement the same expansionary economic policy before elections. The theories of political business cycles can be distinguished in models assuming adaptive (Nordhaus 1975) and rational expectations (Rogoff and Sibert 1988, Rogoff 1990). In the traditional approaches with adaptive expectations, opportunistic policymakers can take advantage of a Phillips curve trade-off. Opportunistic policymakers can fool naive voters and stimulate the economy immediately before each election. Alt and Lassen (2006) point out that the greater is the transparency of the political process, the lower is the probability that politicians behave opportunistically. Partisan models emphasize policymakers' ideological motivations and argue that right-and left-wing parties follow different policies. Perotti and Kontopoulo (2002) show that ideology only influences the budget process via expenditures and finds no significant evidence that it leads to differences in

surpluses or deficits. Volkerink and De Haan (2001) use an ideology index and find similar results. Mulas-Granados (2003) finds that left wing governments are not directly associated with higher or lower deficits.

In more recent literature, different definitions of the degree of fragmentation are considered e.g. Volkerink and De Haan (2001) find that the number of spending ministers has stronger and more robust explanatory power than the number of parties in the government. Perotti and Kontopoulos (2002) find supportive results and show that the latter variable even turns insignificant. Franzese (2002) has distinguished between two types of models that are generally used to explain and interpret the behavior of politicians. Opportunistic models argue that policy is determined by electoral motivations: Politicians just follow policies which maximize their probability of winning the next elections. Political cycles depending on these policies typically show higher deficits in election years or shortly before because government allocates bonuses to the electorate in order to gain popularity right before the elections. Mink and De Haan (2005) find that during election years deficits tend to be higher, whereas in the year preceding the elections they are not. On the other hand, Andrikopoulos *et al.* (2004) considers larger time period and find that right-wing governments tend to be in favor of fiscal stabilization during election times. Alesina and Roubini (1997) find no significantly higher deficits for left-wing governments as compared to other governments.

The above literature review suggests that it would be interesting to investigate the economic, political and institutional factors that are source of budget deficit instability in selected Asian countries persistently facing high fiscal deficits.

3 Overview of Fiscal Deficit in Sample Asian Countries

The resources available for fiscal policy is limited for south Asian countries in particular and developing countries in general and there is political pressure for specific public expenditures that is difficult to oppose. These issues hold for developing countries and most of these apply to the case of south Asian countries (Jha, 2009). India has registered an increase in their revenue expenditure ratio overtime whereas Pakistan, Bangladesh and Srilanka have shown a decline in this ratio. The public expenditure to GDP ratio has risen in India during 1995 to 2009 but has fallen in Pakistan and Srilanka. So public deficit in South Asian countries remains high for Pakistan and Srilanka and countries face considerable resource constraints on financing of the deficit that result from their expenditure in excess of revenues.

The efficiency of public expenditure can be haul out through transparency, accountability and corruption in the public sector on a scale of 1 (low) to 6 (high) [World development Indicators (2010)]. India is the best performer among South Asian countries but has shown no progress in its performance between 2005 and 2008. Bangladesh's score enhanced after 2006 but remained stagnant thereafter. Pakistan's performance has been the worse among the South Asian nations, however Sri Lanka's performance was comparable to India's in 2005 and 2006 but then worsen.

Malaysia faced persistent fiscal deficits in the decade of 2000s, averaging just above 5% of GDP from 2000-05. By 2007, the fiscal deficit had fallen below 4%, but with the commencement of the financial crisis, the decline in growth and the consequent fiscal stimulus measures, the deficit raised to 7.1% of GDP in 2009 and 5.8% in 2010. The Indonesian government pursued an expansionary fiscal policy to sustain domestic demand during the global downturn. Improvement in Indonesia's macroeconomic fundamentals and political stability are creating a center of

attention for foreign investors. Tax revenues are anticipated to increase in 2010 on more concentrated collection efforts. All this is expected to be sufficient to finance the fiscal deficit, but there is a need to reform the subsidy structure and efficiency of commodity revenues in Indonesia to attain long term fiscal sustainability (world Development Indicators, 2010). In general governments in ASEAN countries over the time assumed a simulative role however fiscal prudence continue to be maintained for fiscal deficit to be at the manageable level.

In short, low tax/GDP ratios and inelastic expenditure/GDP ratios in south Asia and ASEAN countries leads to structurally unshakable fiscal deficits. Furthermore, quality of institution that creates economic stability and a move towards democratic regimes is also essential for the stability of fiscal deficit in South Asian Region.

The decade wise average deficit to GDP ratio across countries. In Malaysia deficit to GDP ratio was averaged on 5.6 during 1981-1990, 4% during 1991-2000 and it was average 5% during 2001-2010. In Indonesia deficit to GDP ratio was averaged on 1.1 during 1981-1990, 6% during 1991-2000 and it was average 2.1% during 2001-2010.

In Thailand deficit to GDP ratio was averaged on 1.13% during 1981-1990, 2.38% during 1991-2000 and it was average 3.66% during 2001-2010. In Philippines deficit to GDP ratio was averaged on 2% during 1981-1990, 5% during 1991-2000 and it was average 2% during 2001-2010. The fiscal balance of the region's four ASEAN countries (Indonesia, Malaysia, Philippines and Thailand) are projected to remain in the range of -1.2% to -2.4% of GDP in 2011-15 (Southeast Asian Economic outlook, 2010). In china deficit to GDP ratio was averaged on 0.017 during 1981-1990, 0.008 during 1991-2000 and it was average 0.007 during 2001-2010.

In Pakistan deficit to GDP ratio was averaged on 7% during 1981-1990, 5% during 1991-2000 and it was average 4% during 2001-2010. In India deficit to GDP ratio was averaged on 8% during 1981-1990, 5% during 1991-2000 and it was average 0.04 during 2001-2010. In Sri Lanka deficit to GDP ratio was averaged on 0.09 during 1981-1990, 8% during 1991-2000 and it was average 8% during 2001-2010.

4 Methodology and Data

The investigation of the sources of budget deficit volatility is used based on the theoretical insights of Alesina and Perotti (1995) and Person and Tabellini (1997) and empirical work of Woo (2003) and Henisz (2004) build around the role of institutions on the economic activity. The present study focuses on the economic, political and institutional determinants of budget deficit volatility. The rolling standard deviation for three years of budget deficit to GDP is used to measure volatility and dynamic panel data models are estimated for the period 1984 to 2010 for major South Asian and AESIAN countries. The empirical specification is dynamic panel data models to take account of persistence in the volatility behavior and identify the factors determining the volatility of budget deficit is given below:

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

Where BDV is logarithm of volatility of budget deficit for the country i for the period t , $ECON_{it}$ is set of macroeconomic variables, $INST_{it}$ is set of political and institutional variables, C_{it} is set of control variables to capture country specific characteristics.

The vector of economic variables measures the structural characteristics of countries include budget deficit as percentage of GDP, real per capita GDP, inflation and openness. The higher

budget deficit causes more frequent changes in government spending and taxation, therefore, it is expected that level of budget deficit is positively associated with budget deficit instability. Low income countries have inefficient tax and spending system and they are more prone to budget deficit and in addition they are more expose to socio-political conflicts (Roubini, 1991). The real GDP per capita is included to capture the difference in the level of economic development between the countries and relationship with budget deficit volatility is mixed. There is evidence that supports a negative relationship and reason is that the low income countries have shorter and more volatile business cycles due to less developed financial markets and weak economic institutions (Fatas and Mohov, 2006) and these countries often opt discretionary fiscal policy (Rand and Tarp, 2002). However, Woo (2003) come up with a positive relationship between per capita GDP and budget deficit arguing that a growing economies have more resources and may be in a better position to solve socio-economic distributional problems which may help to deal budget deficits and consequently more volatile budget deficit. The inflation is included to take account of the level of economic uncertainty. As uncertainty causes volatility in government expenditures and revenue which further affects the volatility of budget deficit. The inflation effects budget deficit also through higher nominal interest payments. Therefore, it is expected that higher inflation leads to more budget deficit instability. The external shocks are captured by the degree of openness measured as natural logarithm of the ratio of exports plus imports ratio to GDP. It is expected that degree of openness positively contribute to the budget deficit volatility of the country. The population growth is used as control variable and it is expected that it is negatively associated to budget deficit volatility. Large population leads to spread the cost of financing government spending over a large pool of tax payers giving the benefits of increasing

return to scale and consequently providing the goods and services in more stable fashion and resultantly less volatility in budget deficits.

The vector of variables that capture political instability and quality of government institutions are political stability which include: law and order, military in politics, corruption, democratic accountability, bureaucracy quality, internal, external, ethnic and religious conflicts socioeconomic conditions. The variables incorporated in the model are Institutions include: law and order (strength and impartiality of the legal system and popular observance of law), the bureaucratic quality (the bureaucracy has expertise and strength to govern without drastic changes in policy and interruption in the government services) and investment profile (factors effecting investment risk (contract viability, profit repatriation and payment delays); democracy include: democracy accountability and military in politics (the involvement of military in politics even at peripheral level is a diminution of democratic accountability) and government stability (government unity, legislative strength and popular support); social and economic conditions include components that constraint the government actions and fuel social dissatisfaction; conflict include: internal conflict, external conflict and ethnic and religious tensions.

The dynamic panel specification given in model (1) contains fixed country specific effects and lag dependent variable is correlated with error term. To deal with country specific fixed effects and endogeneity, Arellono and Bond (1991) suggests applying the Generalized Method of Moments after first differencing the equation. The first difference remove the country specific effects and instruments set includes the levels and lags of dependent and exogenous variables. In difference-GMM estimates lag variables are weak instruments (Blundell and Bond (1998)), therefore efficiency can be increased by adding the original equation in the level to the system, if the first difference of the explanatory variables

are uncorrelated with original effects. Lagged dependent and exogenous variables can be used as instrument variables.

Data and Sample

The study used annual data on economic, political and institutional variables, from 1984 to 2010. The existence of missing values for different variables reduces the number of countries to four in South Asian region and five in ASEAN Region. The source of economic data is international financial statistics and world development Indicators. Political and institutional variables are obtained from International Country Risk Data Guide (ICRG).

Economic variables revealing structural distinctiveness of the countries include, budget deficit to GDP, real GDP per capita, inflation, openness. The reason for taking log of budget deficit to GDP ratio is to explore the direction of relationship between level of deficit and deficit volatility and for income is to allow for variation in economic development among countries. Likewise, inflation is taken to test the hypothesis that whether the higher level of inflation is associated with higher level of budget deficit volatility and openness calculated as ratio of national trade to GDP is taken to explore the effect of external shocks on budget deficit volatility. Furthermore a demographic variable i.e population growth is taken to control for country size effects.

To explore the effect of political instability on budget deficit volatility, the study uses political instability index constructed in ICRG by assigning risk points to political risk components which include government stability, socioeconomic conditions, investment profile, internal conflict, external conflict, corruption, military in politics, law and order, democratic accountability, bureaucracy quality, religion and ethnic tensions. The minimum number of points that can be given to every constituent is zero and the maximum number depends on the fixed weight that

component is given in overall risk assessment, lower the risk point higher the total risk and higher the risk point lower the total risk.

4 Empirical Results

The determinates of budget deficit volatility are estimated applying the dynamic panel model and Generalized method of Moments of Blundell and Bond (1998) is used as estimation technique that allows to deal with country specific effects and any edogeneity that may be due to the correlation of the country specific effects and dependent variable.

The analysis begins by estimating the macroeconomic determinants of budget deficit volatility; population growth is used as control variable to take account of country specific effects. The set of macroeconomic determinants include real GDP per capita, deficit to GDP ratio and inflation. Lag of budget deficit volatility is used to assess the existence of inertia in the budgetary process. Thereafter political and institutional variables are included in the model, as political stability is important determinants of fiscal deficit stability. It is expected that political uncertainty is source of constraining and damaging economic activity and decrease GDP growth which in turn affects budget deficit instability. The political instability is a multidimensional phenomenon and cannot be captured by a single variable (Woo, 2003). it suggests that there other factors like better law and order situation and socioeconomic conditions, less corruption, less involvement of military in government and better quality of bureaucracy, more government stability and above all less conflicts. In addition to political stability component sub components are also included in the budget deficit volatility model. In the present study the determinants of budgets deficits are estimated for two regions, South Asia and ASEAN countries for the period 1984 to 2010, to

capture the difference in structural characteristics in these two regions. Four countries are selected for South Asia and five countries for the ASEAN region.

The results of the basic specification of model are reported in model 1 of Table 2. The results indicate that budget deficit volatility persistence and it is highly significant. It is well documented behavior of the fiscal policy that it has inertia. This result is also justified by the fact that changes in government revenue tend to lead changes in expenditures, however spending increase are easier to accommodate than spending reduction and resultantly in the context of revenue volatility, there is bias in favor of deficit which in turn generate budget deficit volatility. Fatas and Mihov (2010) argue that increase in spending is hard to reverse and politically difficult and institutional environment has association with this persistence. Agnello and Sausa (2009) also confirm the persistence in the budgetary process. The results show that real GDP per capita and inflation has a positive and significant effect on the budget deficit volatility. The real GDP per capita captures the degree of economic development during the sample period. The positive relationship of income with the budget deficit volatility suggests that the countries with high per capita income have more instability in budget deficits and this result is confirmed by Fatas and Mihov (2006, 2010) and Woo (2003). Fatas and Mihov (2010) have pointed out fiscal policy is not conducted by benevolent government trying to maximize social welfare function and fiscal policy is too volatile. Therefore due to bad fiscal management and lack of internalizing the spending decisions leads to growing deficits and accumulation of debt. Woo (2003) supports positive relationship indicating that growing economies have more resources and they may be in a better position to deal with the fiscal deficit problem. The results show that the budget deficit volatility decreases as the as population growth increases. The higher the population growth more stable becomes budget deficit as large population allows the benefits of increasing return to

scale, hence enabling the government to provide the public goods in less volatile way as it leads to spread the cost of financing government spending over a large pool of tax payers. The results reported for model 2 Table 2 show that the budget deficit volatility increases as the degree of openness increases and exposure of more external shocks make the budget deficit more volatile. External shocks can be source of fiscal instability especially in developing countries. Changes in export and import prices can affect public sector balance either through profits of exporting or through import tariffs and taxes on exports. The growth of terms of trade is expected to be associated with similar budget deficits and to have a greater impact in economies that are more open to trade. Large and volatile external shocks can decline economic activity which in turn affects the deficits. Agnello and Sausa (2009) and Fatas and Mahov (2010) also show that degree of openness is positively associated with budget deficit volatility and spending volatility respectively. The other economic variables have the same relationship as in the closed economy specification given in model1.

When the political and institutional variables are included to broaden the analysis the role of economic variables remain unchanged as shown by the results presented in models 3, 4, 5 and 6 in Table 2 This ensures the results obtained latter by including the institutional and political variables do not capture the residual of the other economic variables during the sample period. Fatas and Mihov (2010), Edwards and Tabellini (1991), Roubini (1991), Abgello and Sousa (2009) and Alisena et al. (2003) have come up with same conclusions. Political economic theory argues that fiscal policy depends on political and institutional environment (Alesina and Perotti, 1995) and empirical evidence show that government that face more political instability and bad governance are less likely use discretionary fiscal policy and possible cost of restrictions are lack of flexibility to deal with economic fluctuations Institutions and political variables does matter

for fiscal policy and have a significant impact on fiscal outcome such as budget deficit when the institutional environment provide the desired discipline to restrict fiscal policy and improve macroeconomic performance (Woo, 2003, Alesina and Parotti, 1996), Fatas and Mihov, 2003). The governments, where political system is such that role of military in politics is high, bureaucratic quality is low and stability conditions are not good, may face constraints in implementing the fiscal policies. This reduces the government ability to respond to economic shocks in timely manner and effect is instability in the budget deficit. The result reported for model 3 shows that political instability is significantly associated with budget deficit instability. The law and order situation and bureaucratic quality creates a situation that fiscal authorities cannot adjust promptly to the changes in economic conditions and that indirectly cause budget deficit instability (Fatas and Mihov, 2010). This type of non-adjustment may show up with volatility, procyclical or that the other extreme countercyclical fiscal policy. Lane (2003) and Heinisz (2000) show that political constraints affect the cyclicity of fiscal policy and Agnello and Sousa (2009) document that high level of political instability and less democracy is associated with higher budget deficit volatility. Agnello and Sousa (2009) find that a high level of political stability and lower level of democracy is associated with higher level of budget deficit volatility.

Table 1: Summary Statistics

	Mean	Std. Dev.	Maximum	Minimum
Budget Deficit Volatility	9.38	2.59	16.78	4.14
Budget Deficit to GDP	-0.11	0.52	0.75	-5.84
Inflation	5.93	3.60	18.63	0.29
Political Stability	4.65	1.00	6.9	2.38
Real Per Capita GDP	5.59	0.87	7.00	2.99
Population Growth	2.63	1.73	7.95	-1.94
Openness	0.00	2.00	16.37	-5.99

Table 2: Evidence of the Determinants of Budget Deficit Volatility

	Mod1	Mod2	Mod3	Mod4	Mod5	Mod6	Mod7	Mod8
	0.61 (1.09)	0.08 (-0.09)	2.04* (2.01)	-0.08 (-0.09)	-1.27 (-1.04)	-2.17 (-1.04)	0.08 (0.04)	-1.40 (-0.85)
Lag Deficit Volatility	0.16* (2.91)	0.12* (2.15)	0.13* (2.31)	0.12* (2.15)	0.13* (2.20)	0.12* (2.27)	0.18* (1.78)	0.13* (2.35)
Real Per Capita GDP	0.23* (8.38)	0.21* (8.37)	0.21* (7.42)	0.22* (6.21)	0.23* (8.05)	0.21* (8.58)	0.20* (7.93)	0.23* (8.44)
Deficit to GDP	0.20 (1.40)	0.21*** (1.83)	0.24** (1.88)	0.22** (1.85)	0.30* (1.98)	0.28* (1.96)	0.39* (2.63)	0.27* (1.96)
Inflation	0.04* (1.87)	0.22** (1.76)	0.04* (1.89)	0.04** (1.76)	0.06* (2.43)	0.05* (2.09)	0.04* (1.91)	0.04* (1.99)
Population Growth	-0.13* (-1.86)	-0.17* (-1.71)	-0.10*** (-1.76)	-0.17 (-1.74)	-0.19* (-1.78)	-0.10* (1.84)	-0.07* (-1.98)	-0.10* (-1.83)
Openness		0.03*** (1.87)	0.01** (1.84)	0.03* (1.74)	0.01** (1.74)	0.03* (1.76)	0.02** (1.72)	0.03** (1.73)
ASEAN Dummy	-0.31 (-0.77)	-2.76* (2.28)	0.48* (-2.05)	-0.97* (-2.19)	-0.37* (-2.45)	-0.58*** (-1.82)	0.45* (-2.14)	0.31* (-2.24)
Political Stability			-0.26* (-2.91)					
Democracy				0.65* (-3.36)				
Corruption					-0.30* (-2.67)			
Institutions						-0.17* (-2.19)		
Socio-economic conditions							-0.31* (-5.11)	
Conflicts								-0.11** (-1.72)
R ²	0.65	0.66	0.69	0.70	0.72	0.69	0.72	0.67
Hansen (p-value)	0.41	0.28	0.35	0.54	0.44	0.32	0.29	0.60

Note: **Note:** The * indicates significant at 1%, ** indicates significant at 5% and *** indicates significant at 10%. The error terms are heteroskedasticity and autocorrelation adjusted.

The political and institutional variables are significantly related to budget deficit volatility with expected signs as shown by the results reported in Table 2. The results indicate that high level of political stability is associated with more budget stability. Higher corruption and low institutional quality (legal and bureaucracy) and conflicts (internal, external, ethnic and religious) lead to more fluctuations in the budget deficit. Improvement in social and economic condition and high level of democracy cause reduction in the budget deficit volatility. Alesina and Tabellini (2008) suggest that most of the pro-cyclicality of fiscal policy in developing countries can be explained by high levels of corruption. The difference between two regions is captured by including a dummy which take value 1 for ASEAN countries and zero for South Asian countries and results indicate a significant difference with expected negative sign for most of the models indicating that the ASEAN countries have less budget deficit instability. These results are supported by the findings of other studies; Fatas and Mihov (2003) conclude that political constraints are significant determinants of government spending variability when institutional variables and economic controls are included. Woo (2003) emphasizes the role of political factors (government fragmentation, political instability and institutions), social polarization (ethnic division and income inequality), and institutional factors (budgetary procedures and rules, bureaucratic, efficiency, and democracy) on budget deficit. He identifies that high level of social and political unrest might be strong expression of dissatisfaction with the current government and its politics and more likely to be shorten the tenure of politicians and government is more likely to engage in short term policies at the expense of macroeconomic stability

5 Conclusions

In the present study the economic, political and institutional sources of budgets deficits are estimated for two regions South Asia and ASEAN countries for the period 1984 to 2010. Four countries are selected for South Asia and five countries for the ASEAN region. The determinates of budget deficit volatility are estimated applying the dynamic panel model and Generalized method of Moments of Blundell and Bond (1998) that allows to deal with country specific effects and any edogeneity that may be due to the correlation of the country specific effects and dependent variable.

The analysis begins by estimating the macroeconomic determinants of budget deficit volatility. The results reveal high income, high inflation rate and large budget to GDP ratio are associated with large budget instability. The small countries with low population growth have more volatile budget deficits. Lag of budget deficit volatility is positive and significant indicating that the budget deficit volatility has a persistent effect and this result is consistent with the inertia of the budgetary process. High corruption, low institutional quality (legal and bureaucracy) and conflicts (internal, external, ethnic and religious) cause more fluctuations in the budget deficit. The high level of democracy and better social and economic condition reduces the budget deficit volatility. The results indicate that the ASEAN countries have less budget deficit instability. The results of the current study leads to important implication for government that by improving the quality of institutions, creating situations for economic stability and moving towards democratic regimes would ensure more stable fiscal deficits and resultantly positive effect on the long term economic growth.

References

- Afsono, A., Agnello, A., and Furceri, D. (2008). Fiscal policy responsiveness, persistence, and discretion, ECB Working paper no 954.
- Alt, J. E., & Lassen, D. D. (2006). Fiscal transparency, political parties, and debt in OECD countries. *European Economic Review* 50, 1403-1439.
- Alesina, A., Rodrik, D., 1994. Distributive politics and economic growth. *Quarterly Journal of Economics* 109, 465–490.
- Alesina, A., and Perotti, R. R. (1995). The political economy of budget deficits, IMF Staff papers, Vol.42, PP.1-31.
- Alesina, A., Perotti, R., (1996a). Income distribution, political instability and investment. *European Economic Review* 40, 1203–1228.
- Alesina, A. Perotti, R., (1996b). Budget Deficits and Budget Institutions. NBER WP 5556.
- Alesina, A., and Tabellini, G. (2008). Why is fiscal policy often procyclical? *Journal of the European Economic association*, vol 6(5), PP.1006-1036.
- Alesina, A., Roubini, N., 1997. *Political Cycles and the Macroeconomy*. The MIT Press, Cambridge, MA (US).
- Andrikopoulos, A., Loizides, I., Prodromidis, K., 2004. Fiscal Policy and Political Business Cycles in the EU. *European Journal of Political Economy* 20, 125-152.
- Barro, R., 1979. On the determination of public debt. *Journal of political economy* 87, 240-271.
- Beck, N., Katz, J., 1995. What to do (and not to do) with Time-Series Cross-Section Data. *American Political Science Review* 89, (3).

- De Haan J., Sturm J., 1994. Political and institutional determinants of fiscal policy in the European community. *Public choice* 80, 157-172.
- Edin, P., and H. Ohlsson. 1991. Political determinants of budget deficits: Coalition effects versus minority effects. *European Economic Review* 35: 1597-1603.
- Fatas, A., and Mihov, I. (2003). The case for restricting fiscal policy discretion, *Quarterly journal of economics*, Vol. 118, pp. 1419-1447.
- Franzese, R., 2002. Electoral and Partisan Cycles in Economic Policies and Outcomes. *Annual Review of Political Science* 5, 369-421.
- Fatas, A., and Mihov, I. (2006). The Macroeconomic effects of fiscal rules in the US States, *Journal of Public Economics*, VOL .28(10, PP.103-120.
- Hallerberg, M., and Strauch, R. (2002). On the Cyclicity of fiscal policy in Europe. *Empirica*, vol. 29, pp.183-207.
- Henisz, W.J.(2004). Political institutions and volatility. *Economics and politics*, Vol 16,pp.1-27.
- Jha, R. (2009b) 'Fiscal Policy', in A. Dutt and J. Ros (eds) *International Handbook of Development Economics*, London: Edward Elgar publishers, pp. 305–318
- Kontopoulos, Y., Perotti, R., 1999. Government fragmentation and fiscal policy outcomes: evidence from OECD countries. In: Poterba, J.M., von Hagen, J. (Eds.), *Fiscal Institutions and Fiscal Performance*. The University of Chicago Press, Chicago, pp. 81–102.
- Lane, P. (2003). The cyclical behavior of fiscal policy: evidence from the OECD. *Journal of Public economics*, vol 87(12), pp. 2261-2675.

- Leachman, L.L., Rosas, G., Lange, P., and bester, A. (2007). The political economy of budget deficits, *Economics and politics*, Vol. 19(3), PP. 369-420.
- Mink, M., De Haan, J., 2005. Has the Stability and Growth Pact Impeded Political Budget Cycles in the European Union? CESifo WP 1532 (2).
- Mulas-Granados, C., 2003. The Political and Economic Determinants of Budgetary Consolidation in Europe. *European Political Economy Review* 1 (1), 15-39.
- Nordhaus, W. (1975). The political business cycle. *Review of Economic Studies* 42, 169-190.
- Persson, T. and Tabellini, G. (1997). Political economy and macroeconomic policy, NBER, Working paper no 6329.
- Persson, T. (2001). Do Political institutions shape economic policy? NBER Working paper no.8214.
- Persson, T., Tabellini, G., 1999. The size and scope of government. *European Economic Review* 43, 699-735
- Person,T and Tabellini, G.(2001). Political institutions and policy outcomes: what are the stylized facts? CEPR Discussion Paper no 2872.
- Perotti, R., Kontopoulos, Y., 2002. Fragmented Fiscal Policy. *Journal of Public Economics* 86, 191-222.
- Perotti, R., Kontopoulos, Y., 2002. Fragmented Fiscal Policy. *Journal of Public Economics* 86, 191-222.
- Rogoff, K., & Sibert, A. (1988). Elections and macroeconomic policy cycles. *Review of Economic Studies* 55, 1-16.

- Rogoff, K. (1990). Equilibrium political budget cycles. *American Economic Review* 80, 21-36.
- Roubini, N., Sachs, J.D., 1989a. Government spending and budget deficits in the industrialized countries. *Economic policy* 8, 99-132.
- Roubini, N., Sachs, J.D., 1989b. Political and economic determinants of budget deficits in the industrial democracies. *European Economic Review* 33, 903-933.
- Shugart, M.S., Carey, J., 1992. *Presidents and Assemblies*. Cambridge University Press, New York.
- Sorensen, B., Wu, L., and Yosha, O. (2001). Output fluctuations and fiscal policy: US state and local governments 1978-1994, *European Economic Review*, Vol. 45, pp 1271-310.
- Volkerink, B., De Haan, J., 2001. Fragmented Government Effects on Fiscal Policy: New Evidence. *Public Choice* 109 (3-4), 221-242.
- Woo, j. (2003). Economic, political and institutional determinants of public deficits. *Journal of public economics*, vol. 87, pp 387-426.
- Woo, J., 1999. Social polarization, economic development, and fiscal instability: theory and evidence. Harvard University, Unpublished working paper.