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Is Political Instability an Obstacle to Economic growth? Evidence from South Asia

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Abstract

The nexus existing between the growth rate of countries and political instability has been subjected to increasing interest among academic scholars and policymakers in different contexts all around the globe. The current study examined the relationship between political instability and economic growth in both short and long-run, employing the Panel Auto Regressive Distributed Lag (PARDL) model. Through the efforts taken via the study to redefine the political instability and growth nexus in South Asia, it could be stated that despite the insignificant impact of political instability on economic growth in the short run, countries gain the capability in elevating the growth level by maintaining stable political regimes in the long run. The results suggested that there is an overall negative and also a significant linkage between political instability and the long-run growth rate. The holistic analysis highlighted that regulatory quality and civil liberties needed to be well ensured to attain economic growth in the long run as they showed a significant positive relationship with the growth of the South Asian region. The short-run analysis of the variables depicted that there is no strong linkage between the growth and instabilities in the political arena, as the majority of the proxies of political instability exhibited an insignificant relationship with economic growth except regulatory quality.

Keywords: Economic growth; PARDL model; Political Instability; South Asia

Introduction

Instabilities that exist in the political sector of countries have been considered as a serious and a destructive issue for the economic performances of the countries all around the world (New et al., 2018). This has been proved by different

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economists as well. Political instability has made it difficult to create effective economic policies in the countries. Instabilities and unrest in relation to the political sector has generated more frequent switches in the policies while creating high volatility and negatively affecting economic performances (Dutt & Mitra, 2007). Most commonly, political instability has been defined by number of cabinet changes (Ake, 1975). This emphasizes that political instability has been defined with a narrow facet, where it obviously composes with comprehensive ideas that goes beyond the number of cabinet changes (Abu et al., 2015). Therefore, it is not wrong to define political instability as a multidimensional concept. Simply, it emphasizes the number of times in a year in which a new premier is named. However, when compared to the other regions, the political instability, or the number of cabinet changes per year is high within developing countries including South Asian nations. It has been proved from immense number of previous studies that the negative impacts are generated through the political and policy instabilities across several countries (Jong-A-Pin R., 2009). Also, this has become an interesting area to be researched and it was heavily debated by different economists. They have concluded the studies with important insights in relation to this matter (Jong-A-Pin R., 2009).

GDP growth rate has found to be very lower in the countries where there is a high propensity for the governments to be collapsed (Alesina et al., 1996). When focusing on the recent studies, most of them have proved the fact that socio-political instabilities across countries have led to higher inflation rates increasing the risk associated with investments (Yu & Mamuneas, 2019). This has reduced investments in the countries where it has negatively affected the growth rates of nations as well (Jong-A-Pin R., 2009).

Hence, the key problem that is identified through the study is that higher political instability among the South Asian region was less addressed. South Asian region composes with 22% of the population of the world and also it has been identified as a composition of the fastest growing regional economies. The growth of the South Asian region is based mostly on high quality manufactures and quality services in different sectors (Nabi et al., 2010). However, the South Asian region can be elaborated as a critical destination where the majority of the countries are subjected to vulnerable effects from political instability (Younis et al., 2008). When considered, the eight countries in the South Asian region, except Bhutan and Maldives, all other six countries have experienced and still experiencing negativity of political instability, political conflicts, and political unrest. Many studies have confirmed that South Asia already faced difficult

social and economic challenges while also becoming more vulnerable to the lack of good governance which is the research problem identified in the studyⁱ.

The paper is aimed at addressing the main question, "Does political instability affect the economic growth in short run and long run?" The central focus of the study which is to analyze the linkage that exist between the instability of the political sector and growth of the economy can be stressed as a significant effort, as South Asian countries are experiencing critical challenges due to continuous political instabilities. Also, the importance of the study can be highlighted as few attempts have been taken previously to examine the clear short run and long run relationship between political instability and economic growth of the overall South Asian region. There are multiple examples to highlight the high political violence, and political instability that exist in the South Asian region. For instance, when the focus is given to India, it can be noticed that since 1980's the country faced a sharp rise in the frequency with which governments have been ousted out of power. These frequent governmental changes between the elections have generated many reversals and modifications to policy decisions in the country thereby affecting the political stability, growth, and the fiscal health of India (Lalvani, 2003). Going beyond India, when it comes to the Sri Lankan economy, high political instabilities¹ have proven negative impacts towards the economy of Sri Lanka as it has caused many dynamic economic issues all around the country. Given the dramatic and frequent fluctuations in the policies and the challenging arena for Sri Lanka to repay the debt obligations including the dollar dominated domestic debt, downgraded the country's credit rating during this political crisis (Nisthar & Samithamby, 2020). During this period of political crisis, it could be identified that there were salary increments which were very strong and significant in the public sector but this was not affordable to the state balance sheet. The revising of Value Added Tax (VAT) showed the political inconsistency in the country clearly. Even under Vision 2025, equal priority has not been given to all sections of the government. Also, the Cabinet Committee on Economic Council (CCEM) was replaced with the National Economic Council (NEC) and later dismantled again by the President at that time^{ii.} This

¹ One of the most unexpected events in the political history is the fifty days of unstable situation that occurred with the removal of the Prime Minister Wickremasinghe and the appointment of former President Rajapaksha to this replacement. This event was taken place with the absence of the parliamentary majority in favor as well¹. The event took place from 26th of October 2018 to 3rd of December 2018. With the constitutional crisis arose with this appointment and the refusal of his dismissal by former Prime Minister Ranil Wickremasinghe, Mahinda Rajapaksha's powers as the Prime Minister were suspended (Lakshman, 2018).

caused important economic policy decisions to be taken without sufficient deliberations and it caused policy inconsistencies again within the government (Fernando, 2020).

When turning to Nepal, it is one of the poorest nations in Asia and composes with the highest level of poverty when compared to the other nations in South Asia. Agriculture stands as the major income source for the majority of Nepalians and traditional agricultural policies and feudalistic land distributions act as the reasons for the high poverty levels recorded in the country (Gordon, 2008). Since the restoration of democracy in 1990, all parties did not succeed in effectively implementing the land reforms programs highlighting the weaknesses in the political sector of Nepal. The federalization and inclusive democracy are some of the reasons that have given wings to the political instability in the country. The democratic transition which was taken place in the country was unable in bring in significant economic reforms as the parliamentary regime lacked autonomy from the dominant economic class (Prasad, 2012).

Majority of the South Asian countries have been graded with a lower score from the political stability index except Bhutan and Maldives. All other countries have scored negative points at the political stability index, emphasizing that they are continuously faced and facing heavy political instabilities in their nations. For instance, as per the political stability ranking, Bangladesh has acquired the 172nd position with the average score of -1.15 (Kumar, 2014). This clearly elaborated the way Bangladesh is severely affected from political instability. The existing political conflict in Bangladesh, has brought different negative impacts including increased corruptions, poverty and have created problems in the educational system of the country. In Bangladesh, this political instability and unrest have come to exist as a result of the political attitudes of the political parties. Most of the time one political party considers other political parties as their enemies and they lack with a stable political vision for all the parties (Rashiduzzaman, 1997). Despite all the continuous political instabilities faced by Bangladesh, the year 2020 was a stable year for the country with the completion of the major infrastructure projects including the prestigious Padma bridge project, yet the country was not an exception from the Covid-19 outbreak. (Bhattacharjee, 2021). Going beyond that, surprisingly it was identified that political instability has a noteworthy effect and a trivial effect on the growth in relation to Bangladesh. They have identified political stability as an important stimulus for the well management of the public spending and

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making the economic predictions effectively. As per the findings, the impact from political instability is significant and indirect, and it also has positive effects on investment rates. Political instability and the difficulty in handling events like "Hartals" have been identified as the key barriers in Bangladesh to uplift the economic growth. (Chawdhury, 2016)

The status of South Asia in relation to the political stability index can be emphasized through the index score they acquired in the last few years. The above details emphasized that the majority of the countries have continuously faced political instability and political unrest. This can be identified as the main research problem of the study. It also reveales the importance of examining the impact from political instabilities that exist within the South Asian nations towards the economic growth of the particular countries. The following chart emphasizes the political stability index and the score received by the South Asian countries from the year 2015 to 2019.

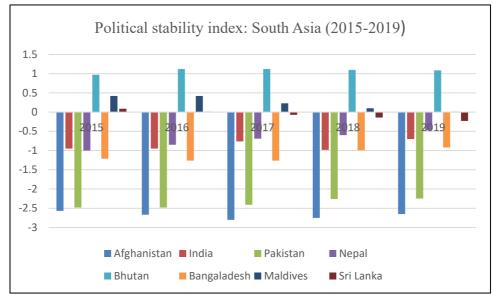


Figure 1: Political stability index for South Asian countries Source: (World Bank, 2021)

Literature Review

Political instability has been defined by different scholars in different ways. As per Alesina et al. (1996), political instability is the propensity of the changes in the executive arm of the government. This change can either happen through constitutional or unconstitutional means. Going beyond that "changes in the government" concept is also defined through the "challenges to the government" (Mbaku, 1992). Changes in the government refer to the reshufflings of the cabinets, removal and replacements of the executive or head of the state. Also, it includes the changes in the representatives of the political parties that can impact the regime of the government. On the other hand, challenges to the government includes, all factors that act as threats to the current regime of the countries to operate smoothly. Some other scholars have understood political instability as one of the conditions in the political arrangements and they also have equalized political instability to political violence as well (Morrison & Stevenson, 1971). Political instability can also be categorized into two/three parts including "elite, communal and mass political instabilities" (Khisa, 2015). Elite political instability can be identified as a circumstance where the individual who is holding the leadership position in the country is forcefully removed from the office via coups. Elite political instability is witnessed in African post-independence where they done/carried out mainly through military elites. On the other hand, the communal political instability can be regarded as an effort which was taken by a union or a coalition with another country with the view of capturing the present government apparatus (Khisa, 2015).

The relationship between political instability and the economic growth can be identified as a well debated field of study and it is one of the most famous debates among the socio-political and economic researchers all over the world. Political instability has become a crucial and a growing issue for most of the developing countries and it is very critical in the South Asian region when compared to the other regions (Mustafa et al., 2017).

There are immense number of studies that have been conducted in order to analyze the direct and indirect relationship that exist in between political instability and the growth. Some studies concluded that political stability or instability have significant impacts on the growth rates of countries. Murad and Alshyab (2019), using the context as Jordan, found that political instability has imposed significant impacts on the economic growth of the country. They have concluded that there is a negative impact from the internal political stability on the economic growth of the country while there is a positive impact from the external political instabilities of border countries. Political instability was proxied by the number of crimes and number of cabinet changes in the country. The analysis has been conducted by using fully modified ordinary least squares approach and taking the number of cabinet changes and GDP growth rate as the indicators of political instability and economic growth by collecting data from 1980 to 2015 in relation to Jordan. The significance of this study is highlighted due to two reasons. The first is the comprehensive debate it has generated to discuss both the effects of internal and external political stability and secondly the suggestions of the study have laid a good framework to overcome the constant threat of political instability of the country. However, using the number of cabinet changes for the internal political instability can be viewed as a narrower facet of political instability.

per Jong-A-Pin (2009), in his study, he has identified the As multidimensionality of political instability using 25 political instability signals through the Exploratory Factor Analysis. This is a progress of the literature where it has eliminated the narrow view of political instability as the number of cabinet changes. The study has concluded that political instability has three dimensions including the inability associated with the political regime, mass civil protests, and motivated violence. The next attempt of the study was to test the causality between political instability and the growth rate by using the dynamic panel system which can be recognized as the Generalized Method of Moments model. The three dimensions were tested separately where it shows only political regime instability exhibited a robust and significant negative effect on the economic growth. The study is significant as it has gone beyond the number of cabinet changes and has applied the multi dimensionality of political instability. However, still the testing of dimensions individually is less effective, and this could be overcome through developing an index using all proxies.

The study which was done to examine the nexus between political instability and the economic growth in Guyana has emphasized that some of the proxies that were used to indicate political instability showed a significant impact on the real GDP growth rates. For instance, the changes in the Head of States have emphasized a positive and a significant impact on the real GDP growth rates while the other proxies including political assassinations, riots, insurrection, and terrorism are not significantly related to the growth of the real GDP of the country (Pasha, 2020). Following the method suggested by Tabassam et al. (2016), the researcher has utilized the GARCH (1,1) model to analyze the nexus between political instability and the economic growth. The Gross Domestic Product (GDP) has been taken as the dependent variable for the study. The number of cabinet changes has been used to capture political instability.

Also, when considering the studies that have been done in relation to Asia, Aisen and Veiga (2011) specified that higher degrees of political instabilities are associated with lower level of growth rates (growth of GDP per capita). The study was carried out by taking a sample of Asian countries. The study concluded that political instability adversely affects the growth by lowering the productivity levels, and human and physical capital accumulation. Also, they have identified that economic freedom and ethnic homogeneity are very beneficial to achieve high growth rates. The political stability index has been used as a proxy for political instability.

When it comes to the studies that have been done to test the relationship between the economic growth and political instability in South Asia (Pakistan) has employed ARCH and GARCH models to examine the consequences of the political instability on economic performances. The results of the study emphasized that there is a significant negative effect from political instability on the economic growth rate of the country. The study has utilized time series data of 22 years to capture the political volatility of Pakistan through elections, strikes and terrorism as dummy variables which are political instability proxies (Tabassam et al., 2016).

In the study of Younis et al. (2008), it has been identified that there is a close relationship between political stability and economic growth. The ordinary least square method has been utilized to examine the nexus between these two. Political stability here is taken as the independent variable while the economic growth rate is the dependent variable. Most importantly, here, an index has been constructed to indicate political stability using the proxy variables for political stability during the period of 1990-2005. The indicators of the political stability composed with election density ratio, index of democratization, strength level of the ruling parties, and expenditure for military activities as a percentage of GDP, regime longevity, ICRG risk rating, people internally displaced and the increment of political parties in national assembly.

The literature emphasized that the linkage between political instability and economic growth have tested at three levels. The first level is the way that political instability influences the economic growth (Aisen & Veiga, 2013; Campos & Nugent, 2022). Secondly, the fact that economic growth is a result of the constant political stability and finally the third is the bidirectional linkage between the instability in the political sector and the growth of the economy (Hasan, 2010). By considering all, the paper attempts to revisit the relationship that exists between political instability and economic growth. The base for the study is laid by the often and ever-growing political instabilities in the South Asian region. Also, less effort has been done to examine the major channels that transmit consequences from political instability to economic growth and how quantitatively significant this relationship is in relation to the South Asian region.

All the above literature showed that even though political instability is a multidimensional concept, the majority of the studies have only focused on one or two proxies to indicate political instability. Also, majority of these studies have conducted quantitative analysis to generate the conclusions about the causal relationship between political instability and the economic growth. This study is significant due to its utilization of the political stability index, as an indicator for political instability among the eight South Asian countries. The political stability index includes indicators like voice and accountability, absence of violence and terrorism, government effectiveness, regulatory quality, rule of law, control of corruption. The index can be determined through the scale reached by each country where negative scales include political instabilities (Radu, 2015). Through the utilization of the political stability index, the study was able to generate a fragile data analysis and generalizable conclusions.

Methodology

The current study has collected the data from 2000-2019 taking eight states including India, Bangladesh, Maldives, Pakistan, Sri Lanka, Bhutan, Nepal, and Afghanistan covering the overall South Asian region. The World Bank Data has been utilized in collecting the relevant data needed for the study. The time series data were collected from different contexts and hence an overall panel data analysis has been conducted through the study in order to investigate the political instability-growth nexus. The analysis has been conducted in two

phases in the current study where firstly, the Panel Autoregressive Distributed Lag Model has been utilized in order to identify the impact of political instability on the economic growth rate of the South Asian countries. The analysis using the Panel Autoregressive Distributed Lag Model has enhanced the practical significance of the study as it has assisted in figuring out the short and long-run linkage between economic growth and political instability clearly. In order to corroborate the results obtained using the Panel Autoregressive Distributed Lag Model, a robustness check has been performed with the use of Fully Modified Ordinary Least Squares (FMOLS) and Dynamic Ordinary Least Squares (DOLS) estimators on which compatible results were premised. FMOLS is a non-parametric way of dealing with serial correlation corrections, whereas DOLS is a parametric approach in which lagged first-differenced terms are unambiguously estimated. In this first phase, the "real GDP growth rate" has been taken as the measure of the economic growth which is the dependent variable. The same proxy was used in many previous scholarly works (Tabassam et al., 2016). On the other hand, "Political stability index score" extracted from the "Index of Political Stability and Absence of Violence/Terrorism" for the period of 2000-2019 is utilized as the main proxy for the political instability that acts as the major independent variable in the current study. This Political Instability index measures the probability of the governments to become more destabilized from the unconstitutional or violent ways including dynamic politically motivated violence and terrorism. The index can be identified as an aggregate or a composite measure which is calculated based on several other multiple sources including the Economist Intelligent Unit, the World Economic Forum, and the Political Risk Services. Variables like international tensions, social unrest, violent demonstrations, terrorism, armed conflicts, and number of cabinet changes, ethnic and religious conflicts are considered when preparing the index (World Bank, 2021).

Apart from that, the investment growth rate (Barro, 1991), education which was measured through the secondary school enrollment (Barro, 1991), population growth rate (Barro, 1991), trade as a percentage of GDP (Jong-A-Pin R. , 2006), inflation rate (Jong-A-Pin R. , 2006) and also the economic freedom estimated through the Index of Economic Freedom (Jong-A-Pin R. , 2006) have been used which are estimated to have impacts on economic growth and these act as controlled variables in order to clearly figure out the relationship between political instability and economic growth. All these variables are utilized to measure their separate impact over the economic growth and the same variables

are used in the study of Jong-A-Pin R. , (2006) and they were identified as significant determinants of economic growth of 98 countries.

As the first empirical analysis, the stationary properties of the data set are examined by applying the Pesaran CADF test. The Pesaran CADF test has been declared to be utilized in studies as it is highly useful in solving the existence of the cross-sectional dependence through augmenting the standard Dickey-Fuller regression with the cross sectional averages of lagged levels and first differences of the individual series. The Pesaran CADF equation can be formulated as follows.

$$\Delta y_{i,t} = a_i + \beta_i y_{i,t-1} + y_i \bar{y}_{t-1} + \varphi \Delta \bar{y}_t + \varepsilon_{i,t}$$
(1)

Based on the results gained for the above equation, the hypotheses set for the unit root can be evaluated. Simply, the unit root test can be conducted by using the Ordinary Least Square results which are gained from the equation 1 with t-ratio by ti (N, T). The CADF test formula is;

$$CADF = t_i(N,T) = \frac{\Delta y'_i \overline{M}_w y_{i-t}}{\widehat{\sigma}_i (y'_{i-1} \overline{M}_w y_{i-1})^{\wedge.5}}$$
(2)

Where,

$$\Delta y_i' = (\Delta y_{i,1}, \Delta y_{i,2}, \Delta y_{i,2}, \Delta y_{i,r})'$$

$$\Delta y_{i-1}' = (\Delta y_0, \Delta y_{2-1}, \Delta y_{r-1})'$$

$$\overline{M}_{W} = I_{t} - \overline{W} (\overline{W}' \overline{W})^{-1} \overline{W}'$$

where $\overline{W} = (r, \Delta \overline{y}, \overline{y}_{-1})$

where
$$\Delta \bar{y} = (\Delta \bar{y}_{1,} \Delta \bar{y}_{2,\dots,\dots,} \Delta \bar{y}_{r})$$
 and $\bar{y}_{-1} = (\bar{y}_{0,} \bar{y}_{1,} \dots \dots \dots \bar{y}_{r-1})$

$$\hat{\sigma}_i^2 = \frac{\Delta y_i' M_{i,w} \Delta y_i}{T - 4}$$
$$M_{i,w} = I_T - (G_i (G_i' G_i)^{-1} G_i' \text{ and } G_i = (\overline{W}, y_{i,-1})$$

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After conducting the unit root test based on the cross-sectional augmented DF (CADF), the final step of the empirical analysis has been allocated to estimate the long and short run relationship between the variables prioritizing the relationship between political instability and economic growth. In order to reach this, the study has applied the Panel Autoregressive Distributed Lag Model. For estimating the long-run and short run relationship among the variables, we have applied Panel Autoregressive Distributed Lag Model based on three alternative estimators such as Mean Group estimator (MG), Pooled Mean Group (PMG) and Dynamic Fixed Effects (DFE).

The literature has identified the fact that instability in the political sector is a multidimensional concept that has many dimensions and cannot be proxied from one dimensionⁱⁱⁱ. Hence, the usage of one of the individual political instability indicators creates measurement errors (Jong-A-Pin R., 2006). This problem has been solved in the current study by using a composite measure for political instability which is the political stability index in the analysis for the key explanatory variable. As same, in order to measure the impact of political instability on economic growth, four dimensions have been utilized as proxies for political instability including the rule of law, control of corruptions, civil liberties and regulatory quality (Jong-A-Pin R., 2006). The reason for using four dimensions as proxies of political instability is that these dimensions are not included in the political stability index. In order to examine the impact of the political instability over the economic growth of South Asian countries, the augmented version of the Autoregressive Distributed Lag was used by different studies. Mankiw et al. (1992) and Islam (1995) while some studies followed the Solow-Swan model which was introduced by the study of Solow (1956). The analysis of the current study followed Barro (1991) and Jong-A-Pin R. (2006) in determining the controlled variables for the model. These variables include Investment, secondary school enrollment, population growth rate, trade as a percentage of GDP, inflation rate and economic freedom.

$$\ln growth_{it} = a + \beta \ln Z_{it} + \gamma \ln X_{it} + \varepsilon_{it}$$
(3)

Here, $growth_{it}$ is represented using the average economic growth per capita for the country i in the period t (2000-2019). Z_{it} is the vector with the explanatory variables (Barro, 1991) including investment, political instability, secondary school enrollment, population growth rate, trade as a percentage of GDP, inflation rate and economic freedom. The vector Xit reflects the four dimensions of political instability.

Here, a linear ARDL model is utilized in estimating the relationship between political instability and economic growth. The reason for using the ARDL model is that it seemed to be the idlest/ideal method that assists in overcoming the endogeneity problem that is associated with the political instability-growth nexus which is analyzed.

$$RGDP = \sum_{j=1}^{p} \alpha_{ij} RGDP_{i,t-j} + \sum_{j=0}^{q} \beta'_{ij} PI_{i,t-j} + \sum_{j=0}^{q} \gamma'_{ij} IG_{i,t-j} + \sum_{j=0}^{q} \delta'_{ij} EDU_{i,t-j} + \sum_{j=0}^{q} \varepsilon'_{ij} RG_{i,t-j} + \sum_{j=0}^{q} \varepsilon'_{ij} RG_{i,t-j} + \sum_{j=0}^{q} \theta'_{ij} INF_{i,t-j} + \sum_{j=0}^{q} \theta'_{ij} EF_{i,t-j} + \sum_{j=0}^{q} \mu'_{ij} RL_{i,t-j} + \sum_{j=0}^{q} \pi'_{ij} CC_{i,t-j} + \sum_{j=0}^{q} \rho'_{ij} CL_{i,t-j} + \sum_{j=0}^{q} \sigma'_{ij} RQ_{i,t-j} u_{i} + \varepsilon_{it}$$
(4)

Where;

i=1,2,3....., N number of cross sectionals (Here N=8)

t=1,2,3...,T total number of time periods (Here T=20)

 $\alpha_{ij}, \beta'_{ij}, \gamma'_{ij}, \delta'_{ij}, \varepsilon'_{ij}, \epsilon'_{ij}, \theta'_{ij}, \theta'_{ij} = \text{scalars}$

 u_i = cross sectional effects RGDP= Real GDP growth rate PI=Political instability IG=Investment growth EDU= Education PG=Population growth TR=Trade as a percentage of GDP INF=Inflation rates EF=Economic freedom RL=Rule of law CC=Control of corruptions CL=Civil liberties RQ=Regulatory quality

In order to examine the long term and short term impact of political instability on the economic growth of the South Asian region, the following hypotheses were stated to be tested.

Hypothesis 1: There is no impact from political instability on economic growth

Hypothesis 2: There is an impact from political instability on economic growth

Analysis and Discussion

As stated previously, the main purpose of the study is to examine the short and long run relationship between economic growth and other macro-economic variables. However, through the study, the key objective of analyzing the political instability-growth nexus has been prioritized. A holistic approach has been utilized to conduct the analysis to figure out this nexus where political instability is considered as a multi-dimensional concept and different proxies have been used to indicate political instability including the political instability index.

The Table 1 represents the summary of the co-integration estimates of the Equation 3 in the long run while Table 2 elaborates the short run co-integration estimates of the Equation 3.

Table 1: Long run ARDL Cointegration Model				
Model	ARDL (1,1)			
Selection method of the model	Hannan-Quinn criterion (HQ)			
Observation	152			
Bound Test F Statistic for small	14.57			
samples				
Dependent variable				
LN_RGDP	0.0000*			
Independent variables				
LN_PI	0.0000*			
LN_IG	0.0002*			
LN_EDU	0.0000*			
LN_PG	0.0019*			
LN_TR	0.0006*			
LN_INF	0.0118*			
LN_EF	0.9786*			
LN_RL	0.7325*			
LN_CC	0.6216*			
LN_CL	0.0251*			
LN_RQ	0.0032*			
@Trend	0394*			

T-11. 1. Long ADDI Cointegration Model Notes:

- a. The model is estimated with constant and trend with one lag of Real GDP and seven lags for Political Instability Index (1,1) based on the Hannan-Quinn criterion (HQ)
- b.* represent the significant level of 5%

A significant negative relationship can be identified between the political instability index and economic growth in the long run. The above table depicts that the p-value coefficient of the political instability index is less than 0.05 or 5%, where the null hypothesis falls in the rejection region. Hence, it can be concluded that the null hypothesis can be rejected stating that there is a significant relationship between the political instability index and economic growth rates of the South Asian region. The same findings could be observed in previous research papers which were conducted in different contexts. Therefore, the findings of the study are well aligned with the studies (Aisen &Veiga, 2013; Siddique et al., 2019; and Fenetahun et al., 2021) where they have examined that political instability exerts a strong and a negative influence on the Real Gross Domestic Product (RGDP) of the countries. Following the methodology of studies (Pasha, 2020 and Jong-A-Pin R., 2006) the proxies have been individually analyzed to identify a holistic or a comprehensive result for the effects of political instability in South Asian growth levels in their economies. In that case, civil liberties and regulatory quality shows a significant positive relationship with the economic growth of the South Asian region, while the other two proxies, including control of corruption and rule of law are not significant variables that affect economic growth rate of the countries in the South Asian region. When regulatory quality increases and the civil liberties increases signing a reduction of the political instability, a rise in the economic growth rates can be predicted.

Variable	Nature of the relationship	Strength of the
	with economic growth	relationship
LN_PI	Negative	Significant
LN_IG	Positive	Significant
LN_EDU	Positive	Significant
LN_PG	Negative	Significant
LN_TR	Positive	Significant

Table 2: Relationship between the variables and the economic growth in long run

LN_INF	Negative	Significant
LN_EF	Negative	Insignificant
LN_RL	Positive	Insignificant
LN_CC	Negative	Insignificant
LN_CL	Positive	Significant
LN_RQ	Positive	Significant

Similarly, when analyzed, the short run relationship between political instability and economic growth, it could be identified that the political instability index does not show a significant impact over economic growth. However, when it comes to the individual dimensions of political instability, the regulatory quality is the only variable that exhibited a significant relationship with the economic growth of the South Asian region.

Table 3: Short run ARDL Cointegration Model

Model	ARDL (1,1)
Selection method of the model	Hannan-Quinn criterion (HQ)
Observation	152
Bound Test F Statistic for small	14.57
samples	
Exogeneous Regressors	
D(PI)	0.1901*
D(IG)	0.3081*
D(EDU)	0.2185*
D(PG)	0.8141*
D(TR)	0.5783*
D(INF)	0.6571*
D(EF)	0.3008*
D(RL)	0.3351*
D(CC)	0.1262*
D(CL)	0.2263*
D(RQ)	0.0284*
CointEq(-1)	0. 005*

Notes:

- b. The model is estimated with constant and trend with one lag of Real GDP and seven lags for Political Instability Index (1,1) based on the Hannan-Quinn criterion (HQ)
- b.* represent the significant level of 5%

Short run ARDL Cointegration Model

Variable	Nature of the relationship	Strength of the
	with economic growth	relationship
D(PI)	Negative	Insignificant
D(IG)	Positive	Insignificant
D(EDU)	Positive	Insignificant
D(PG)	Negative	Insignificant
D(TR)	Positive	Insignificant
D(INF)	Negative	Insignificant
D(EF)	Negative	Insignificant
D(RL)	Positive	Insignificant
D(CC)	Negative	Insignificant
D(CL)	Positive	Insignificant
D(RQ)	Positive	Significant

Table 4:Realtionship between the variables and the economic growth in short run

The results (Table 4) emphasized that it could observe a long-run influence from South Asian political instability. However, in the short run, no such linkage between instability in the political sector and the growth could be expected. However, when it comes to the proxies utilized for political instability, only regulatory quality exhibited a significant influence over the economic growth in both long and short run. When the countries can attain a good regulatory quality, the growth rates will rise and when they fail to maintain the quality of the regulations, the growth will be reduced due to the occurrences of political instabilities. Apart from that, civil liberties also significantly influenced over the economic growth of the countries in the long run. As per Aisen and Veiga, (2013), a negative coefficient is expected as similar as the current study in between instability in the political sector and the growth due to the greater political instability that has led to high uncertainties associated with future economic policies, ultimately lowering the economic growth of the countries. As per Alesina et al., (1996), political instability is measured through governmental changes (cabinet changes). They have also investigated that when political instability exists within the economy, or when there is a period with higher governmental changes, there is a high propensity for the economy to experience a lower growth.

Apart from the negative significant relationship that is examined by the current paper between political instability and economic growth, Barro, (1991) also has investigated that political instability is indicated through the number of assassinations and occurrences of violent revolutions and military coups have notable effects over the average growth level on cross section regressions on a large sample of countries. According to Aisen & Veiga, (2010), political instability is associated with a greater level of uncertainty in the future economic policy which leads to an adverse effect on investment which in turn leads to poor physical capital accumulation. In addition to that, human capital accumulation may also be adversely affected as people are induced to invest less in education due to the uncertainty involved in the future economic condition of the country as a consequence of political instability. Furthermore, political instability leads to a reduction in research and development efforts made by the firms and governments, creating a slower technological progress. The overall productivity is adversely affected as a result of violence, civil unrest and strikes as normal operations of firms and markets are utterly obstructed by reducing the number of hours worked (Aisen & Veiga, 2010). Alesin & Perotti, (1996), have investigated that in developing countries like South Asian countries, political instability gives birth to uncertainty and risk where the countries will become less attractive as a safe destination to do investments. Hence, lower private investments will lead to lower the growth levels of the countries. As a part of checking the robustness of the results of panel ADRL model, DOLS and FMOLS outcomes were in line with the ARDL outcome, corroborating the results of the panel ADRL model.

Conclusion

The current study has highlighted the nature of the effects from political instabilities for the economic growth concerning on the South Asian region. The study provides a holistic view on the relationship between political instability and economic growth, where political instability is highlighted as a

multi-dimensional concept. Political instability index, regulatory quality, civil liberties, control of corruption and rule of law are used as indications for political instability. The study has utilized an Autoregressive Distributed Lag Model (ARDLM) 1 for the analysis in order to generate t insights about the political instability-growth nexus for both short and long run.

The results emphasized that political instability has a significant negative impact on real GDP growth rate in South Asia, where through political instability, the quality of governance and uncertainties generated lead to lower investments and lower growth levels in the long run. This further can be elaborated through the significant negative impact forwarded from the two proxies of political instability including regulatory quality and civil liberties. On the other hand, political instability has not exhibited any influence over the growth rate in the short run.

The study has contributed vastly to the academic rigor through the comprehensive analysis conducted by employing the ARDL model about the short and long run impact of political instability over the economic growth rates in the South Asian region. This has eased the policy makers' responsibilities in taking necessary actions and priorities to exercise aiming a stable political regime in their respective countries. As the study suggests, since political instability and economic growth are deeply interconnected in the long run, it is important to restructure the political structure of majority of the countries in South Asia where political instabilities and uncertainties are high. Also, the quality of the regulatory activities is vital to monitor continuously as it has strong impact towards the growth rates of the countries both in the long and short run.

Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship, and publication of this article.

ⁱ See for example, Younis et al. (2008) and Nabi et at. (2010)

ⁱⁱ Visit for more details: <u>https://www.newsfirst.lk/2019/10/20/president-seeks-to-dismantle-the-national-economic-council/</u>

iv Examples for the studies who considered the political instability as a one dimensional concept are Londregan and Poole (1990), Levine and Renelt (1992),

Alesina et al. (1996), Peretti (1996), Ades and Chua (1997), Easterly and Levine (1997) and, Sala-I-Martin (1997).

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