

## **Economic Institutions and Growth Nexus: The Role of Governance and Democratic Institutions—Evidence from Time Varying Parameters’ (TVPs) Models**

GHULAM MURTAZA and MUHAMMAD ZAHIR FARIDI

The present study has investigated the channels through which the linkage between economic institutions and growth is gauged, by addressing the main hypothesis of the study that whether quality of governance and democratic institutions set a stage for economic institutions to promote the long-term growth process in Pakistan. To test the hypothesis empirically, our study models the dynamic relationship between growth and economic institutions in a time varying framework in order to capture institutional developments and structural changes occurred in the economy of Pakistan over the years. Study articulates that, along with some customary specifics, the quality of government and democracy are the substantial factors that affect institutional quality and ultimately cause to promote growth in Pakistan.

*JEL Classification:* O40; P16; C14; H10

*Keywords:* Economic Institutions, Growth, Governance and Democracy, Rolling Window Two-stage Least Squares, Pakistan

*‘Once you start thinking about economic growth, it is hard to think about anything else’.*  
Robert Lucas, Jr. (1988), Nobel Laureate Economist

### **1. INTRODUCTION**

The objective of high economic growth rate for nation’s prosperity and progress is not novel and, traditionally, has been a central issue of economic policies throughout the world [Haller (2014)]. In the last few decades, cross countries income differentials have altered the attention of economic planners and economic scientists to unveil the factors responsible for this high income gaps across developed and developing nations [Flachaire, *et. al* (2014)]. That is why recent studies in new growth context argue a number of factors, beyond some traditional growth factors, that persuade long-term growth process.

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The studies of [Rodrik, *et al.* (2004); Acemoglu, *et al.* (2001); Easterly and Levine (2003)], among others) accentuate ‘*economic institutions*’ as new growth imperative and acknowledge the potential role of economic institutions characterized in term of protection of property rights, effective legal system, enforcement of law and order, large size of government dealings, sound monetary system, freedom of international trade, and solid labor, housing, business and financial/credit market regulations [Knack and Keefer (1995); Chong and Calderon (2000); Engerman and Sokoloff (1997); Hall and Jones (1999); Frankel and Romer (1999); Acemoglu, *et al.* (2000); Doucouliagos and Ulubasoglu (2008); Gwartney and Lawson (2003)].

Moreover, existing literature on this issue make us available with a conclusion that besides a number of other factors, including social asymmetry, cultural barriers, gender biasness, ethnic and racial discrimination, and economic inequalities—the *quality of government* (QoG) or good governance—is one of the significant factor persuades economic development because mere budget allocations of public resources do not necessarily outgrowth higher outcomes if budget formulation, execution and monitoring is malfunctioned [Dzhumashev (2014); Ryvkin and Serra (2012); World Bank (2003)].

In the same way, fragile administration and management, especially in developing counties, has been well cited in order to explain the factors behind government failure in establishing institutions with a such incentive system that could reduce fraud, increase cost efficiency, and cause to promote growth process [Rajkumar and Swaroop (2008); World Bank (2003)]. Additionally, authors such as, Flachaire, *et al.* (2014) and Acemoglu, *et al.* (2005) proposed that the deep and proximate causes of growth rely on political institutions which devise economic institutions through the hypothesis of hierarchy of institutions.

The narration of the above expressions implies that the effect of quality of governance under different political regime is observed indirectly via the improvement in economic institutions which, eventually, lead to economic growth. This paper seek to investigate empirically the role of governance in different political regimes, in explaining the relationship between growth and economic institutions incase of Pakistan. Using time series data, we employ rolling window two-stage least squares method to test the time varying relationship among concerned variables in order to capture institutional developments and structural changes in the economy of Pakistan over the period of time.

After the introduction in the first section, rest of the paper follows as; Section 2 reviews the literature. Data and methodology is presented in Section 3. Results and discussions are made in Section 4, while Section 5 concludes.

## 2. LITERATURE REVIEW

There exist numerous studies on the relationship between economic growth and institutions at cross country level based on different income groups of countries. Yet evidences are not in surfeit in case of time series data. Most of the empirical research draws a conclusion that institutions are the factor that significantly expresses the cross country differences through different channels or controlling variables. In the following, review of different prior studies is made to have a comprehensive debate on institutions-growth nexus with different perspectives.

Since the seminal work of [North (1982)] on institutions and development, the researchers have made a noteworthy contribution to literature. Most of the empirical work is based on the pure cross section approach to investigate the links between institutions and economic growth, such as [Acemoglu, *et al.* (2001); Hall and Johns (1999); Grogan and Moers (2001); Knack and Keefer (1995), among others]. Evidences show that the impact of institutions on economic growth is significantly positive and very clear. Yet the channels through which the growth effects of institutions get upsurge, are different and involve countries' geographic conditions, initial income level, countries income level groups, accumulation of human capital, political stability, trade openness, political regime and quality of governance, along with many others factors [see, for example, Acemoglu, *et al.* (2005); Eicher and Leukert (2009); Lipset (1960); Glaeser, *et al.* (2004); Flachaire, *et al.* (2014)].

The empirical findings of Lee and Kim (2009) and Law and Bany-Ariffin (2008) demonstrate that there is bi-directional relationship between institutions and economic growth. However, the effects are strong in case of low and middle income countries group then that of high income countries.

The consensus over the direction of causality between economic growth and institutions has aroused strong opposition in cross-section data approach, and subjected to econometric techniques as well as to the number of countries used in panel data (sample selection)- wherein some countries institutions cause economic growth, while in other countries economic growth effect institutions but full sample analysis fails to show different causality patterns each country inhabits [Butkiewicz and Yanikkaya (2006)]. Moreover, the direction of causality may get change with the addition or reduction in the number of countries. For that reason time series data is more preferable [Law and Bany-Ariffin (2013)]. Yet, the unavailability of long-time data set on institutions is one of the reasons for which time series analysis is sparse.

A number of studies are available to explore the impact of political institutions on economic growth, although the findings are controversial regarding sign of correlates, and direct/indirect impact of political institutions on growth. For instance, Glaeser, *et al.* (2004) pointed out that political institutions impacts are direct and autocratic regimes are also often more growth promoting as compared to democratic regimes. In support to this, De Long and Shleifer (1993) and Jones and Olken (2005) argue that autocrats impose such a strict economic policies that are growth stimulating even if it cost for some sectors of electorates, while others prefer to dissuade growth in order to favor some dominant coalitions of political powers. Yet, Larsson and Parente (2011) is not in favor of above arguments and also claimed that political intuitions do not directly determine growth, instead they control the coefficients of covariates in the growth regression equation.

In the light of above literature, our priority is that the economic institutions are the key determinants of growth and also translate indirect impact of other factors of growth including governance and political institutions. Thus it is the matter of great interest to investigate the economic institutions and growth nexus under novel confounding variables to propose some prudent policy framework to enhance economic growth in Pakistan.

### 3. DATA, MODEL AND METHODOLOGY

#### 3.1. Data Description

Study uses fresh time series data for the analysis starting from 1984 to 2013, collected from different sources based upon the availability of data. The data on GDP per capita ( $y$ ) measured in current US Dollar, Gross fixed capital formation ( $k$ ) measured in current US Dollars, is collected from World Development Indicators (WDI). While employed labor force ( $l$ ) measured in millions of workers is gathered from Pakistan Labor Force Survey.

In order to measure the economic institutions (EFW), different studies have used different proxies. For example, studies like Vega-Gordillo and Alvarez-Arce (2003) have used economic freedom as a proxy of economic institutions from *Fraser Institute*. While S.H., Law (2014) measured economic freedom with three indicators including corruption, law and order and bureaucratic quality from the *International Country Risk Guide* (ICRG), a monthly publication report of *Political Risk Services* (PRS).

Mostly cross-section studies follow Kaufmann, *et al.* (2008) approach, based on six indicators to measure different dimensions of institutional quality and governance, reported in *World Governance Indicators* (WGI), World Bank. But shorter time span and alignment with the governance indicators limit its use to employ these indicators for the institutional quality. Following Gwartney and Lawson (2003), this paper uses a revised *Economic Freedom of World Index*<sup>1</sup> (*EFW-Index*, thereafter) to measure economic institutions represented by economic freedom as a proxy. The dimensions/Indicators on which the *EFW-Index* is constructed are elaborated in Table 3.1.

Table 3.1

<i>Indicators for Quality of Governance (QoG) and Quality of Economic Institutions (EFW)</i>			
<i>Quality of Governance (QoG)</i>	<i>Index</i>	<i>Quality of Economic Institutions</i>	<i>Index</i>
<i>Dimensions/Indicators</i>	<i>Range</i>	<i>Dimensions/Indicators</i>	<i>Range</i>
▪ Internal Conflict Index (IC)	0 – 12	▪ Legal System and Property Rights	0 - 10
▪ Government Stability Index (GSTAB)	0 – 12	▪ Regulations: Labor, financial/credit, and business regulation etc.	0 - 10
▪ Investment Profile Index (IP)	0 – 12	▪ Freedom of trade internationally	0 - 10
▪ Law and Order Index (LAO)	0 –6	▪ Sound Monetary System	0 - 10
▪ Democratic Accountability Index (DACC)	0 –6	▪ The size of Government: Revenues, Expenditures, and Enterprises	0 - 10
▪ Index for Army in Politics (AIP)	0 –6		
▪ Corruption Index (CORR)	0 –6		

*Note:* The maximum value of index shows the best situation while zero indicates the worse condition.

<sup>1</sup>The new and revised version of the EFW Index is built on the five indicators/areas to represent the economic freedom. For more detail see, Gwartney, and Lawson (2003). The concept and measurement of economic freedom. *European Journal of Political Economy* 19:3, 405–430.

Following Flachaire, *et al.* (2014), the data on political institutions (*Dem*) to measure the degree of democracy<sup>2</sup> is proxied by Polity IV collected from the *Integrated Network for Societal Conflict Research* (INSCR) Database, *Centre for Systematic Peace*. The index ranges from 0 (autocratic government) to 10 (full democratic government). The Quality of Governance (QoG) measured with a number of indicators/dimensions, is collected from *International Country Risk Guide* (ICRG). The Table 3.1 explains the different dimensions/indicators to measure the quality of governance.

**3.2. The Model**

***Economic Institutions in the Growth Process***

The main objective of the study is to investigate empirically the impact of economic institutions on economic growth in Pakistan. For this sake, drawing insights from Solow (1956), the production function can be defined as:

$$Y(t) = A(t)[L(t)]^\alpha [K(t)]^\beta \quad \alpha > 0, \beta > 0 \quad (1)$$

Where  $Y(t)$  is the real output per capita,  $L(t)$  represents employed labor force,  $K(t)$  is the fixed capital formation and  $A(t)$  is the multifactor productivity (often termed as state of the technology or knowledge) that grows exponentially over time from its given initial level.

$$A(t) = A(0)e^{gt} \quad (2)$$

Taking insights from ‘*New institutional economics*’ that accentuate the role of institutions in explaining growth, beyond labour, physical and human capital accumulation (as taken in Solow and Ramsay Growth Models) and technological progress (Endogenous growth Theories). So, the extended production function can be specified by combining institutional quality proxies with some traditional growth factors i.e., labour and capital, as suggested by [Kirman (2007); Balamoune-Lutz and Ndikumana (2007); Gwartney, *et al.* (2006)].

Following the study of Butkiewicz and Yanikkaya (2006), the evolution of the technology<sup>3</sup>  $A(t)$ , in Solow’s growth model, can be observed by incorporating economic institutions (EFW), governance (QoG) and democratic institutions (*Dem*) as the function of technology,  $A(t)$ , such as:

$$A(t) = f(EFW, Dem, QoG) \quad (3)$$

The impact of *EFW*, *Dem* and *QoG* can be observed by adding them as shifting factors of production function besides Labor and Capital:

$$A(t) = A(0)e^{gt} EFW^\lambda Dem^\delta QoG^\lambda \quad (4)$$

By putting the above value of  $A(t)$ , the Equation (1) can be written as:

$$Y(t) = A(0)e^{gt} EFW^\lambda Dem^\delta QoG^\lambda [L(t)]^\alpha [K(t)]^\beta \quad (5)$$

<sup>2</sup>Basically, the term democracy indicates the provision of political rights of the individuals to participate in the political process actively, such that they have right for vote, freedom to compete for the public office, and for the electorates to have decisive votes on public policy issues [Gastil (1986-1987), p. 7].

<sup>3</sup>Landes (1999) has also emphasized that the embracement of the institutions is a major determinant that encourage innovations, technological progress and entrepreneurship.

Assuming the returns are constant, the above production function takes the following augmented Cobb-Douglas form:

$$Y(t) = A_t L_t^\alpha K_t^\beta EFW_t^\gamma Dem_t^\delta QOG_t^\lambda e^u \dots \dots \dots \dots \dots \dots (6)$$

By taking log, Equation (6) can be represented into the linearised Cobb-Douglas form:

$$\gamma_t = \alpha_0 + \alpha L_t + \beta k_t + \gamma EFW_t + \delta Dem_t + \lambda QoG_t + \theta T + u_t \dots \dots (7)$$

Finally the Equation (7) indicates the elasticities of economic growth with respect to labour, capital, economic institutions, and also *w.r.t* control/confounding variables that include governance and level of democracy (autocracy). In the next section, we represent the econometric methodology to estimate Equation (7).

### 3.3. Empirical Methodology

A number of econometric methods are available in case of estimating the relationship between institution and economic growth, depending on the data type, sample size and time series characteristics of data. Mostly cross-sectional studies have used instrumental variable (IV) techniques like, Panel GMM method, 2SLS/3SLS, IV-Random-effect, along with some other estimation methods like Pooled Mean Group, SUR estimation technique and Meta-regression analysis, because of particular advantages of these methodologies over others, e.g., fixed/random effects, Pooled OLS. For example, the studies of [Glaeser, *et al.* (2004); Aixala and Fabro (2008); Law and Bany-Ariffin (2008); Efendic, *et al.* (2011)], among other] are well illustrative to the problem of the heterogeneity and reverse causality among variables.

For causality inferences, Panel Least squares dummy-variable causality, Panel/pooled causality tests are prominent for panel data, while for time series analysis, VAR-based causality test are observed [Vega-Gordillo and Alvarez-Arce (2003); Chong and Calderon (2000)].

Our priority in this paper is to estimate the effects of economic institutions on economic growth in Pakistan by testing the contemporaneous effects of governance and democracy (autocracy) in the growth-institutions regression equation.<sup>4</sup> Redek and Susjan (2005) and Eicher and Schreiber (2010) declared that the institutional changes have been observed as a dramatic phenomenon evolving rapidly over the time especially in transitional countries. Moreover is that when structural changes occur, institutional development materializes into difference sectors of economy and policy shift take places, then time series data might not have a single stable regime and experiences a structural breaks that, consequently, result in unstable regression parameters. Thus policy implication based on such results may lead to wrong directions. This paper takes into account the non-constancy of regression parameters and attempts to investigate the time varying relationship between economic institutions and growth.

<sup>4</sup>Although sufficient studies have made efforts to test bi-directional relationship between institutions and growth [see, Lee and Kim (2009); Chong and Calderon (2000); Barro (1996)]. Empirical findings of these studies reveal that institutions follow income. Our study does not take the causality inferences because this is beyond the scope of this paper, as we hypothesize to test the concurrent role governance and democracy for growth-institutions nexus in a novel time varying framework.

### Rolling Window Two-Stage Least Squares

The study uses rolling window two stage least square estimation technique in order to test our prior hypothesis that institutions and growth correlates in a non-constant fashion as time passes i.e., the coefficient of the variables do not remain constant for full sample size estimation [see, Pesaran and Timmermann (2012)]. Rolling two stage least squares regression is primarily an instrumental variable (IV) technique that tackles the problem of endogeneity of economic institution.<sup>5</sup> This methodology is favorable in case of time series analysis to capture structural adjustment in a precise manner. The use of time varying estimation provides solution to a number of problem including model misspecification, unidentified functional form and spurious conclusion [Hall, *et al.* (2009, 2010)].

In order to estimate the time varying relationship for each observation, we need to set a window size ( $l$ ), and step size which is usually taken one in time series data. There is no hard and fast rule in choosing window size ( $l$ ), yet it should have a substantial size, balancing the tradeoff between accuracy and representativeness [Koutris, *et al.* (2008) and Balcilar, *et al.* (2010)].

Time varying rolling estimation procedure is actually a process of sub-sampling which starts with a benchmark sample size that remains constant over the whole analysis, and adds one observation to the benchmark sample size by dropping the last one observation from it so that to obtain the regression parameters at each point of time for the whole sample.

In the next section, we have estimated different dynamic versions of Equation (7) of the form written as under:

$$y_t = \omega_t + \sum_{i=1}^a \phi_t y_{t-i} + \sum_{i=0}^b \alpha_t J_{t-i} + \sum_{i=0}^c \beta_t k_{t-i} \sum_{i=0}^d \gamma_t EFW_{t-i} + \sum_{i=0}^e \delta_t QoG_{t-i} + \sum_{i=0}^f \lambda_t Dem_{t-i} + \theta T + u_t \quad u_t \sim N(0, \sigma^2) \quad \dots \quad \dots \quad (8)$$

Where  $\omega_t$ ,  $\phi_t$ ,  $\alpha_t$ ,  $\beta_t$ ,  $\gamma_t$ ,  $\delta_t$ ,  $\lambda_t$ ,  $\theta_t$  are the time varying parameters while  $a$ ,  $b$ ,  $c$ ,  $d$ ,  $e$ ,  $f$  indicate the lag length, and  $u_t$  is the error term.

## 4. EMPIRICAL FINDINGS AND DISCUSSION

In this section, time varying estimates are presented, using rolling window two-stage-least squares regressions. Our sample size, in this analysis, consists of 30 observations while window size<sup>6</sup> for rolling regressions is chosen 14. The instrumental variables (IV) used in the regression, are the immediate lags of explanatory variables as literature on time series analysis recommends.

The preliminary regression results indicate employed labor force has been contributing positively to economic growth historically as indicated in Figure 1, yet

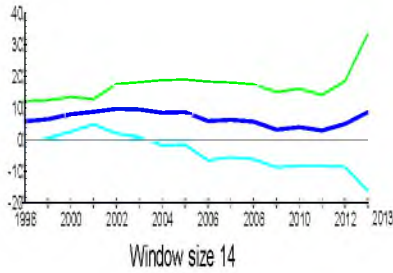
<sup>5</sup>In our support of using this IV technique, Efendic, *et al.* (2011) argues that evidences on growth-institutions correlation are robust and significantly positive, yet degree of effect is sensitive to model specification and (non)treatment of endogeneity of the institutions.

<sup>6</sup>Mostly in literature, studies have taken window size equals to one-third of the whole sample size. Yet we have chosen a bit larger size taking into account our use of dynamic regression analysis that involves lags.

capital contribution has not stimulated the output of the country and indicates a shortage of capital over the years, as shown in Figure 2. Growth has also effected from its immediate lag positively with a small negative impacts in the initial times as estimated in Figure 3. After investigating the time varying impact of labor and capital, subsequently output function is extended to include the economic institution (EFW), and further comprises on the democratic institutions (*Dem*).

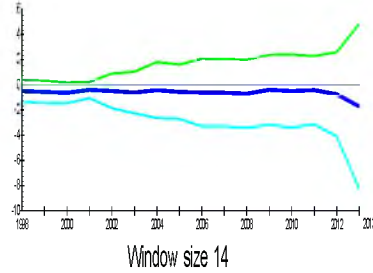
**Fig.1:** $y=f(l,k, y(-1))$

Coefficient of LL and its two\*S.E. bands based on rolling IV



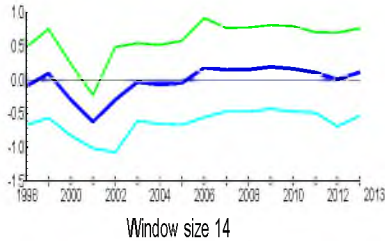
**Fig.2:** $y=f(l, k, y(-1))$

Coefficient of LK and its two\*S.E. bands based on rolling IV



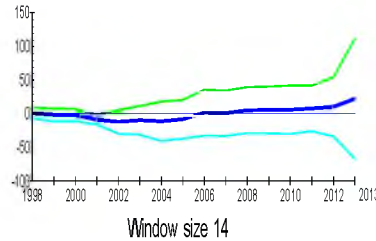
**Fig. 3:** $y=f(l,k, y(-1))$

Coefficient of LRGDPPC(-1) and its two\*S.E. bands based on rolling IV



**Fig.4:** $y=f(l,k, y(-1))$

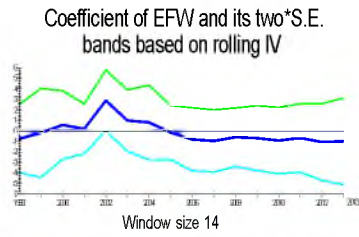
Coefficient of C and its two\*S.E. bands based on rolling IV



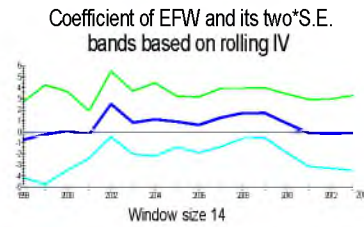
The results indicate that economic institutions impact on growth is very poor, but the inclusion of time trend upsurges the institutions impact on growth. This shows that the institutions evolve over time that ultimately cause to promote growth positively [see, Figure 5 and Figure 6). The effects of democracy on economic growth are nearly close to zero (Figure 7), while the inclusion of the time increases its positive impacts. This demonstrates that there is no direct impact of democracy-(autocracy) on growth; rather this relationship depends on time as Figure 8 makes the empirical evidences more clear. Moreover, the democratic institutions have indirect impact and via economic institutions it effect economic growth. However, the indirect impact is too small, unless time is added in regression, the comparison of Figure 5, Figure 9 and Figure 10 reveals.



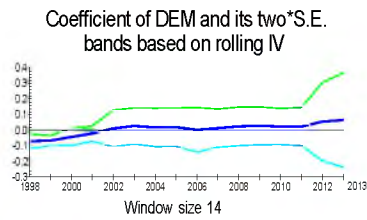
**Fig. 5:**  $y=f(l,k, y(-1), EFW, EFW(-1))$



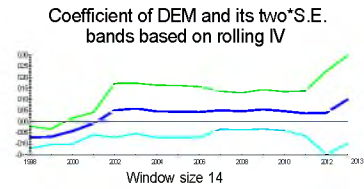
**Fig. 6:**  $y=f(l,k, y(-1), EFW, EFW(-1),$   
*Time trend*)



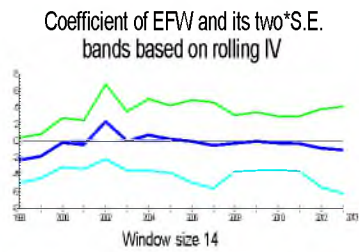
**Fig. 7:**  $y=f(l,k, y(-1), Dem, Dem(-1))$



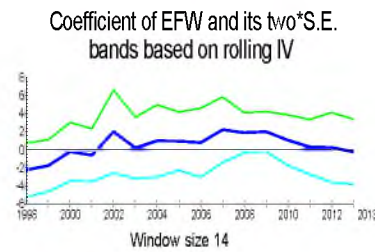
**Fig. 8:**  $y=f(l,k, y(-1), Dem, Dem(-1),$   
*Time Trend*)



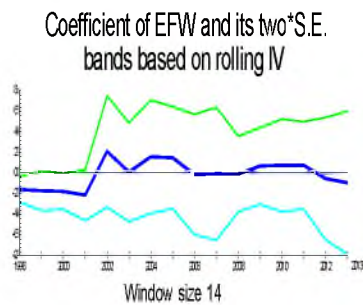
**Fig. 9:**  $y=f(l,k, y(-1), EFW, EFW(-1),$   
*Dem, Dem(-1))*



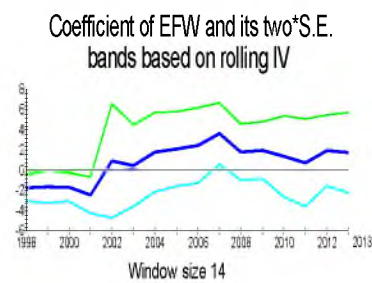
**Fig. 10:**  $y=f(l,k, y(-1), EFW, EFW(-1),$   
*Dem, Dem(-1)), Time trend*)



**Fig. 11:**  $y=f(l,k, y(-1), EFW, EFW(-1),$   
*Dem, Dem(-1), LAO, LAO(-1))*



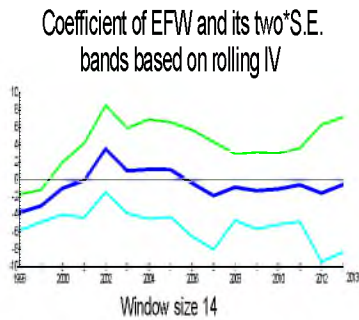
**Fig. 12:**  $y=f(l,k, y(-1), EFW, EFW(-1),$   
*Dem, Dem(-1), LAO, LAO(-1), Time Trend*)



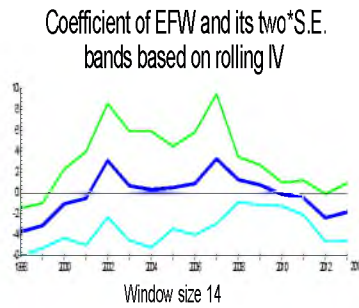
**Contemporaneous Role of Governance and Democratic Institutions in Economic Institutions—Growth Nexus**

Furthermore, our analysis takes governance and democratic institutions in explaining time varying impact of economic institutions on growth. Figure 11 reveals that the impact of law and order (LAO) in the country is growth encouraging by providing incentives to the economic institutions to grow. The indirect impact of law and order is significantly large when time is added in the regression, indicating that this development involves time (as it is clear from Figure. 12 in comparison to Figure. 11 and Figure 9).

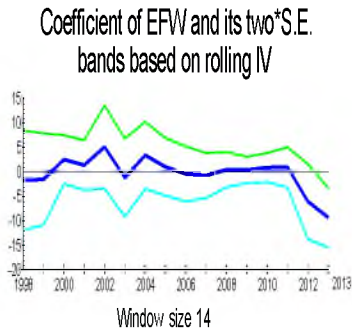
**Fig. 13:**  $y=f(l.k, y(-1), EFW, EFW(-1), Dem, Dem(-1), IP, IP(-1))$



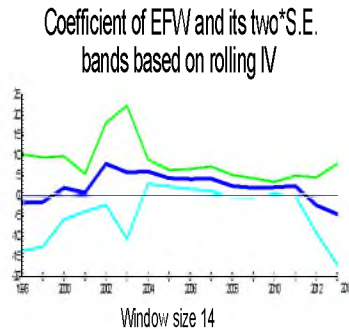
**Fig. 14:**  $y=f(l.k, y(-1), EFW, EFW(-1), Dem, Dem(-1), IP, IP(-1), Time trend)$



**Fig. 15:**  $y=f(l.k, y(-1), EFW, EFW(-1), Dem, Dem(-1), IC, IC(-1))$



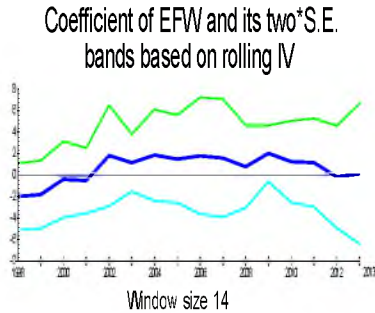
**Fig. 16:**  $y=f(l.k, y(-1), EFW, EFW(-1), Dem, Dem(-1), IC, IC(-1), Time Trend)$



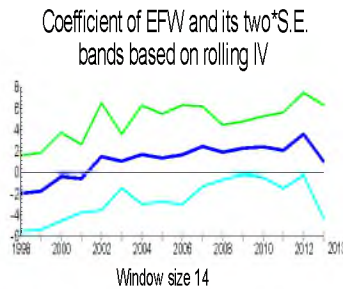
The investment profile (IP) as a confounding variable indicates a growth deterring situation. This means that in the presence of investment risks such as repatriation of profits and payments delays, economic institutions’ strength to persuade economic growth turns to decrease as shown in Figure 13. Moreover, the internal conflict that are responsible for political stability is a vital source that effect the performance of government and consequently, influences the economic growth badly via economic institutions.

The results appeared in Figure 15 and Figure 16 indicate that political stability or the internal conflicts are deterring the economic growth by retracting the role of economic institution in growth process over a period of time. In the same way, in the recent years, the governing stability indicates its falling positive impacts on economic institutions over the time. The less government effectiveness in pursuing its declared development programs causing to decrease economic institutions impact on growth (as Figure 17 and Figure 18 makes the empirical evidences clear).

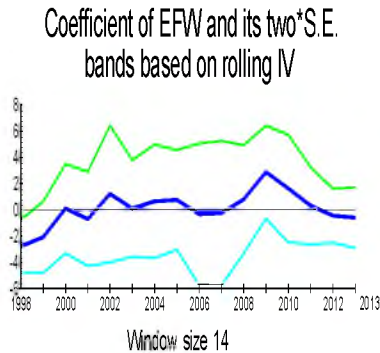
**Fig. 17:**  $y=f(l.k, y(-1), EFW, EFW(-1), Dem, Dem(-1), GSTAB, GSTAB(-1))$



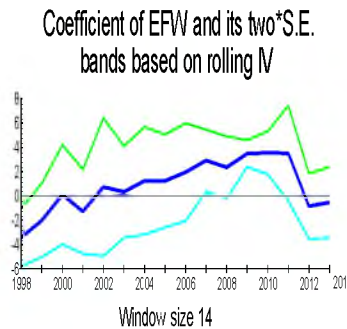
**Fig. 18:**  $y=f(l.k, y(-1), EFW, EFW(-1), Dem, Dem(-1), GSTAB, GSTAB(-1), Time trend)$



**Fig. 19:**  $y=f(l.k, y(-1), EFW, EFW(-1), Dem, Dem(-1), DACC, DACC(-1))$



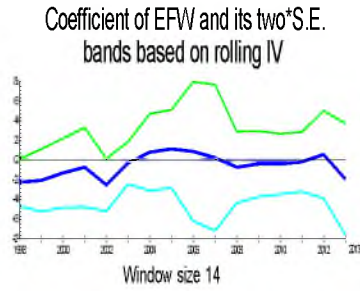
**Fig. 20:**  $y=f(l.k, y(-1), EFW, EFW(-1), Dem, Dem(-1), DACC, DACC(-1), Time Trend)$



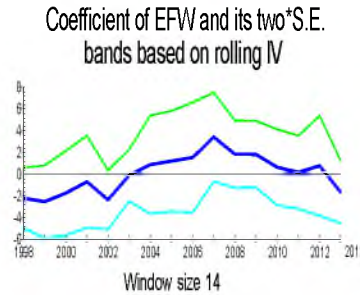
The democratic accountability (DACC) is also considered one of the important dimensions of government quality. Figure 19 and 20 indicated that it is growth promoting if democratic government is more accountable to its people and creates a people’s participatory environment. The democratic accountability turns more effective as the time passes, results reveal.

The control over corruption is a major indicator of government quality. In Pakistan, it has been a worsening condition regarding the control over corruption which is making government fail in building quality economic institutions.

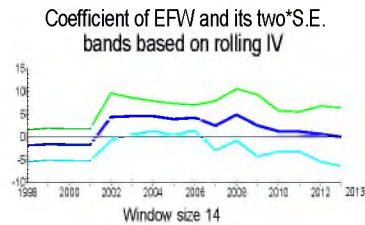
**Fig. 21:**  $y=f(l.k, y(-1), EFW, EFW(-1), Dem, Dem(-1), CORR, CORR(-1))$



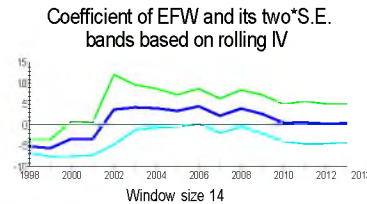
**Fig. 22:**  $y=f(l.k, y(-1), EFW, EFW(-1), Dem, Dem(-1), CORR, CORR(-1), Time trend)$



**Fig. 23:**  $y=f(l.k, y(-1), EFW, EFW(-1), Dem, Dem(-1), AIP, AIP(-1))$



**Fig. 24:**  $y=f(l.k, y(-1), EFW, EFW(-1), Dem, Dem(-1), AIP, AIP(-1), Time Trend)$



Results pointed out that corruption has been a significant element in deteriorating institutions positive effect on economic growth. The reason may be the limited use of public office for the national interest, rather than for the benefits of some dominant coalitions at the cost of national prosperity. The role of military has been positive with growth via improving institutions as represented in Figure 23 and Figure 24.

### 5. CONCLUSIONS

In this study, we have tested our main hypothesis- that is to investigate the different factors that cause to effect economic growth via economic institutions. The study used time series data ranges from 1984-2013 and employed rolling window 2SLS technique in order to gauge time varying relationship among variables. The crux of the study goes over the main points: beyond some traditional growth factors, the performance of economic institutions in encouraging economic growth of Pakistan is very subjective and depends on a number of other confounding factors like governance quality, democratic institutions and time dimensions. Primarily, results suggest that translation of the growth effect of economic institutions from negative to positive require time. Furthermore, democratic institutions (movement from autocratic to democratic regime) are turning to be inclusive by responding to build inclusive economic institutions that lead to high economic growth—but still the impact is very small and requires time to evolve, results reveal.

Moreover, study explores the fact that the quality of governance, along with democracy, is a significant factor that explains the relationship between economic growth and economic institutions. The quality of governance indicators, like maintenance of law and order, good investment profile/ regulatory quality, government stability, democratic accountability, and army political role, are the factors causing to promote economic growth by improving the quality of economic institutions in Pakistan. While government is lacking in controlling over corruption and political violence (internal conflicts) that's why economic institutions are losing its positive impact on economic growth, results reveals. The study recommend a prudent economic policy that government is in sturdy need of controlling corruption, and to resolve the internal conflicts in order to make the quality of government better along with its other components, under a democratic governing system.

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