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## INSTITUTIONAL QUALITY AND ECONOMIC GROWTH IN NIGERIA

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### Abstract

*The study examined the effect of institutional quality on economic growth in Nigeria. The study used annual time series data covering the period of 1996 to 2022; the data for the variables were checked against the problems of unit root using Augmented Dickey Fuller (ADF) and Phillips Perron (PP) unit root test and all the variables were either stable or integrated at  $I(0)$  and  $I(1)$ . Institutional quality was proxied on government effectiveness, rule of law, control of corruption, regulatory quality, and control of corruption, voice and accountability while real gross domestic product was used as proxy for economic growth. Consequently, the ADF bound test was employed and it revealed the existence of long-run relationship between the dependent and independent variables. The Auto-Regressive Distributed Lag (ARDL) model was adopted for the study, and it was discovered that control of corruption, voice and accountability, political stability, and rule of law were statistically insignificant while government effectiveness and regulatory quality were statistically significant. The overall finding revealed that institutional quality has positive but insignificant effect on economic growth in Nigeria. The study therefore recommends that; vigorous anti-corruption campaign should be taken very seriously by EFCC and ICPC; the agencies should be constituted by reputable staff to bring forth desired results. Also, the national assembly members (both lower and upper chamber) should prioritize high and improved laws such as; life imprisonment or death sentence for political and public office holders found with corruption charges.*

**Key words:** Institutional Quality, Economic Growth, Auto-Regressive Distributed Lag, and Development

**JEL Classification:** P48, O47, F43, O43

### 1. Introduction

In the realm of economic growth, the role of institutional quality is of utmost significance to a nation. This is because the presence of robust and efficient institutions cultivates an environment conducive to economic activities, while feeble or malfunctioning institutions can impede progress in the economic sphere. It is noteworthy that the global assessment of institutional quality relies on six key indicators: government effectiveness, rule of law, control of corruption, regulatory quality, political stability, and voice and accountability (World Development Indicators, 2022). Undoubtedly, institutional quality serves as the foundation that

propels the economic growth of nations, making it highly pertinent to both developed and developing nations alike. This is due to the fact that quality institutions enable a nation's government to establish a framework for safeguarding individual property rights, resolving disputes among aggrieved individuals, enforcing and monitoring contracts for infrastructural development, fostering a business-friendly and secure environment, and ensuring the protection of the lives and properties of its citizens. Additionally, the rule of law engenders a robust and impartial legal system within a country, thereby instilling confidence and trust among individuals in society. The significance of quality institutions lies in their ability to regulate and implement social, political, and economic activities

across the globe, while also facilitating effective monitoring and evaluation. Furthermore, sound institutions contribute to global social cohesion and macroeconomic stability, consequently leading to increased productivity, investment, and economic growth (Easterly, Ritzén & Woolcock, 2006). There exists substantial evidence suggesting that countries with sound and efficient institutions establish a solid legal framework for resilient fund mobilization and allocation, thereby creating a less vulnerable and risky business environment (Abubakar, 2020; Law & Azam-Saini, 2008).

Latin American and African countries are confronted with fundamental obstacles and setbacks in terms of economic development as a result of political instability, uncertainties, and manipulation, a lack of trust in the judicial system, bribery, tax evasion, ill-defined property rights, a high level of insecurity, and, worst of all, corruption. Both Africa as a continent and Latin American nations are currently grappling with inefficient institutions characterized by non-economic growth-enhancing policies that are poorly conceived and implemented by political leaders, thereby creating an unattractive environment for both local and foreign investors. For instance, Asian economies have achieved economic development due to the quality of their institutions, whereas in Africa, including Nigeria, most nations are plagued by a high level of corruption, unemployment, and poverty. Even in the Democratic Republic of Congo, despite its abundant mineral resources, it struggles to attract foreign investors due to weak institutions such as political instability and poor governance. Nevertheless, empirical evidence has demonstrated that the quality of institutions can influence both foreign and domestic investment (Nair, Arvin, Pradhan & Bahmani, 2021).

Globally, despite all the efforts to enhance institutional quality in developing economies, including Nigeria, it remains uncertain whether significant improvements have been achieved to date (Andrews, 2013). Ultimately, nations with very weak institutions face significant challenges in diligently evolving to experience economic growth and compete with

developed economies (Abubakar, 2020). The aforementioned reasons provide justification for why institutional quality is crucial for the economic growth of every nation. It is evident that key indicators such as political stability, regulatory quality, the rule of law, control of corruption, government effectiveness, voice and accountability have been trending negatively in the 21st century (WDI, 2022). It is noteworthy that most African countries, including Nigeria, are plagued by the institutional challenges mentioned above.

To enhance Nigeria's institutional quality, the Federal government has established the Corrupt Practices Investigation Bureau, the Code of Conduct Bureau, and the Public Complaint Commission. During General Olusegun Obasanjo's administration, further efforts were made to establish institutions that could ensure efficiency and accountability in resource management in both the public and private sectors, with the aim of promoting sustainable economic growth. Some of these institutions include the Independent Corrupt Practices and Other Related Offences Commission (ICPC) and the Economic and Financial Crimes Commission (EFCC), as well as the Nigerian Financial Intelligence Unit (NFIU) and the Fiscal Responsibility Commission (FRC), to name a few. Given the identified deficiencies in Nigeria's institutions and their negative impact over the years, it is essential to investigate how institutional quality affects economic growth in Nigeria, particularly among those responsible for ensuring the effective utilization of scarce resources and management. Unfortunately, these institutions have been unable to perform credibly due to a weak legal system and a lack of political will. Moreover, Nigeria's institutional quality continues to decline, which is concerning considering the country's slow rate of economic growth compared to developed nations with robust institutions. Against this backdrop, this study aims to examine the impact of institutional quality on economic growth in Nigeria.

## **2. Literature Review**

### **2.1 Theoretical Framework**

#### **Neo-classical Theory of Growth**

This study is rooted in the neoclassical growth theory proposed by Solow-Swan. According to this theory, changes in technology, labor, and capital play a crucial role in determining economic output (Solow, 1956; Swan, 1956). Mankiw, Romer, and Weil (1992) further expanded on this theory by incorporating the accumulation of human capital. However, this may no longer hold, as other factors drive sustainable economic growth, one of which is institutional quality, which is among the determining factors. Similarly, the endogenous growth model proposed by Lucas (1988) suggests that investment in human capital, innovation, and knowledge significantly contribute to economic growth. The basic neoclassical production function can be expressed as:

$$Y = f(K, L) \quad (1)$$

Here,  $Y$  represents the level of output,  $K$  denotes capital formation, and  $L$  represents the labor force. Human capital is also considered a key determinant of economic growth in endogenous growth theories proposed by Romer (1986, 1990) and Lucas (1988), and it serves as a crucial extension of the neoclassical model. Human capital ( $H$ ) is incorporated into the fundamental neoclassical production function, thus transforming the model into:

$$Y = f(K, L, H) - \quad (2)$$

Thus, by introducing institutional quality, the model can be specified as:

$$Y = f(K, L, H, \text{INSQ}) \quad (3)$$

The study decomposed capital, labor, and human capital into indicators of institutional quality, including government effectiveness, political stability, regulatory quality, control of corruption, rule of law, voice, and accountability. Considering that these indicators contribute to effective institutions, the study used Real Gross Domestic Product as a proxy for economic growth. The model can be defined as follows:

$$\text{RGDP} = f(\text{GE}, \text{PS}, \text{RQ}, \text{CC}, \text{RL}, \text{VA}) \quad (4)$$

Here, RGDP represents the growth rate of real Gross Domestic Product, GE represents government effectiveness, PS represents political stability, RQ represents regulatory quality, CC represents control of corruption, RL represents rule of law, and VA represents voice and accountability.

## 2.2 Empirical Review

It is worthy of note that considerable studies on institutional quality, foreign direct investment (FDI) and growth in both developed and developing economies have been carried out, but less has been done on the subject matter.

Buchanan, Le, and Rishi (2012) conducted an examination of the influence of institutional quality on foreign direct investment (FDI) and volatility by utilizing data from a total of 164 developed and developing countries. The study employed a straightforward ordinary least squares (OLS) regression analysis, and their findings unveiled that institutional quality possesses a positive and noteworthy impact on FDI. They posited that a constructive alteration in a nation's institutional quality enhances the inflow of Foreign Direct Investment. Additionally, Akpo and Hassan (2015) examined the impact of institutional quality on Foreign Direct Investment (FDI), with a particular focus on Nigeria. The study employed the Autoregressive Distributed Lag (ARDL) cointegration technique. The investigation revealed that institutional qualities exhibit a long-term influence in determining the inflow of FDI in Nigeria; it was also observed that institutional quality is a crucial determinant of FDI inflows within the Nigerian economy.

Furthermore, Ullah and Khan (2017) analyzed the effects of institutional quality and foreign direct investment (FDI) on economic growth within Asian nations. These nations were divided into the South Asian Association for Regional Cooperation (SAARC), the Association of South-East Asian Nations (ASEAN), and Central Asian countries. The research employed the generalized method of moments (GMM) technique and found a positive and significant relationship between institutional quality and GDP. Moreover, the governance index and labor force exhibited a negative

impact on FDI inflows within the SAARC region. Additionally, it was discovered that Central Asia's real GDP, domestic investment, and governance index are positively associated with FDI inflows. However, the effect of the economic freedom index on FDI was deemed negative and insignificant. Jilenga and Helian (2017) conducted research on the influence of institutional quality and FDI on economic growth, utilizing a sample of 36 countries spanning from 2001 to 2015. The study employed both fixed effect and GMM models for the analysis. The investigation unveiled that institutional quality has a positive influence on economic growth, notwithstanding the fact that foreign direct investment exerts a negative impact on economic growth. The study further revealed that the relationship between institutional quality and FDI exerts a positive effect; it was also demonstrated that institutional quality augments the spill-over effect originating from FDI, making it a crucial driver for economic growth.

Peres, Ameer, and Xu (2018) utilized the ordinary least squares (OLS) regression technique to scrutinize the influence of institutional quality on foreign direct investment (FDI) in both developed and developing economies. Their findings demonstrated a positive and significant relationship between institutional quality and FDI. The study unveiled that developed economies exhibit a higher level of investment compared to developing economies due to the presence of quality institutions, capital intensity, and advanced technologies. Conversely, developing economies tend to lag behind in terms of investment due to the prevalence of weak institutions and a lack of technical expertise. Consequently, the study concluded that governance serves as a crucial indicator of institutions that is indispensable for stimulating and attracting foreign direct investment in both developed and developing economies. Bon (2019) also conducted an investigation into the role of institutional quality in the relationship between public investment and economic growth. This was accomplished by employing a balanced panel data comprising 52 provinces in Vietnam from 2005 to 2014, utilizing the estimation method of difference panel Generalized Method of

Moments (GMM). The findings of the study exhibited a positive and significant impact of both public investment and institutional quality on economic growth.

In a similar vein, Sabir, Rafique, and Abbas (2019) conducted a study on the influence of institutional quality on FDI inflows by utilizing the system Generalized Method of Moments (GMM). The results indicated a significant impact of institutional quality on FDI across all groups of nations. The study employed panel data encompassing low, lower-middle, upper-middle, and high-income economies for the period of 1996-2016. Moreover, the study revealed that institutional quality exerts a greater influence on FDI and economic growth in developed economies compared to developing economies, particularly those classified as low-income countries. Another study focused on examining the effect of institutional quality and human capital on economic growth within the context of 35 European countries spanning the years 1996 to 2014. The study employed the system GMM estimation technique and found that institutional quality serves as a key driver of per capita income growth in Europe. Furthermore, the study delved into the disaggregated analysis of the effects of institutional quality indices and identified control of corruption, rule of law, political stability, and regulatory quality as the most significant factors driving the economy. Conversely, voice and accountability, as well as government effectiveness, were deemed less relevant but still served as significant drivers of economic growth in Europe.

Using time series data for Nigeria, Abubakar (2020) conducted a research study that explored the impact of institutional quality on economic growth within the time frame of 1979 to 2018. The study employed the Johansen Cointegration and Ordinary Least Square (OLS) approach, and the findings revealed a significant and positive relationship between institutional quality (specifically contract-intensive money) and economic growth. Additionally, the study observed that the index of effective governance exerted a positive but insignificant effect on the economy's growth. It is



important to note that the study adopted an asymmetric approach and considered the composite index of institutional quality in analyzing the relationship between institutional quality and economic growth in Nigeria. Similarly, Adegboye, Osabohien, Olokoyo, and Adediran (2020) investigated the effect of challenges faced by institutions on foreign direct investment (FDI) inflow and its impact on economic growth. The study utilized data from 30 selected Sub-Saharan Africa (SSA) countries and employed fixed and random effect regression models for estimation. The findings highlighted the crucial role of foreign capital inflow in driving economic growth in Sub-Saharan Africa. Furthermore, the study revealed that institutional quality significantly influences the level of FDI inflow to Sub-Saharan African countries.

Furthermore, Jurčić, Franc, and Barišić (2020) examined the impact of institutional quality on foreign direct investment (FDI) inflow in Croatia by utilizing the Ordinary Least Squares (OLS) technique. The study spanned from 1996 to 2017 and revealed that the indicators of institutional quality, including the rule of law, government effectiveness, control of corruption, political stability, and regulatory quality, were not identified as imperative determinants of FDI inflow in Croatia. To further support these findings, other scholars such as Wagner (2019), Sabir, Rafique, and Abbas (2019), Peres, Ameer, and Xu (2018), and Adediran (2020) also conducted studies that examined the relationship between institutional quality, foreign direct investment (FDI), and economic growth. Their research consistently found a positive and significant influence of institutional quality on both FDI and economic growth.

### 3. Methodology

#### 3.1 Data and Sources

The study used secondary data sourced from World Governance Indicators (WGI) spanning for the period of 1996-2022 to carry out the analysis; while GDP was sourced from World Development Indicators (WDI) for the period under consideration. According to World Governance Indicators, the GE, PS, CC, RQ, VA and

RL of a country are weak if the index is close to -2.5 and strong if the index is close to 2.5.

#### 3.2 Method of Data Analysis

The study used Auto-regressive Distributive Lag (ARDL) model to achieve the objectives of the study in examining the effect of institutional quality on economic growth in Nigeria. The study adopted ARDL model because of its suitability to handle different forms of stationarity within I(0) and I(1).

#### 3.3 Model Specification

Following the theoretical framework of the study and adapting the empirical works of Jurčić, Franc and Barišić (2020) using the variables; Real Gross Domestic Product as proxy for economic growth, while rule of law, control of corruption, government effectiveness, political stability, regulatory quality, voice and accountability were used as proxy for institutional quality. The functional form of the model is stated as thus;

$$RGDP = f(Get, PSt, RQt, CCt, RLt, VAt) \quad (5)$$

The econometric form of the model is given as

$$RGDP_t = \alpha_0 + \alpha_1 GE_t + \alpha_2 PS_t + \alpha_3 RQ_t + \alpha_4 CC_t + \alpha_5 RL_t + \alpha_6 VA_t + \alpha_7 RGDP_t + \epsilon_t \quad (6)$$

The ARDL form of the model is given as;

$$RGDP_t = \alpha_0 + \sum_i^p = i \alpha_1 GE_{t-1} + \sum_i^q = i \alpha_2 PS_{t-1} + \sum_i^q = i \alpha_3 RQ_{t-1} + \sum_i^q = i \alpha_4 CC_{t-1} + \sum_i^q = i \alpha_5 RL_{t-1} + \sum_i^q = i \alpha_6 VA_{t-1} + \sum_i^q = i \alpha_7 RGDP_{t-1} + \sum_i^q = i + e_t \quad (7)$$

Where  $\alpha_0$  is the intercept; and  $\alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5, \alpha_6$  are  $\alpha_7$  the coefficients of the variables,  $\epsilon_t$  represents the error term and  $\sum_i^p = i, \sum_i^q = i$  are the lags of the dependent and independent variables. Where  $RGDP_t$  is the real gross domestic product which is a proxy for economic growth,  $GE_t$  is the government effectiveness,  $PS_t$  is the political stability,  $RQ_t$  is the regulatory quality,  $LR_t$  is the rule of law,  $CC_t$  control of corruption,  $VA_t$  is voice and accountability.

#### 3.4 Estimation Procedure

##### Test for Stationarity

The Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) stationarity test were conducted to check the presence of non-stationarity in the data. The PP test represent an advancement on the Augmented Dickey-Fuller test;  $H_0 = \alpha = 0$ , but it proposes a nonparametric approach. Therefore, following Phillips Perron approach; it is also suitable to a wider category of time series, which includes the ARMA model, and also the moving average models. It is represented as thus;

$$\Delta Y_t = \alpha Y_{t-1} + u_t \quad (7)$$

where,  $Y_t$  is a time series and  $u_t$  is a sequence of innovations. Whilst the ADF test was conducted to address the problem of a higher degree of autocorrelation by adding lagged difference terms of the dependent variable,  $\Delta Y_{t-1}$  as regressors in the test equation, the PP test modifies the test statistic of the  $\alpha$  parameter; therefore, serial correlation does not affect the asymptotic distribution of the test statistic.

### The ARDL Co-integration Approach

The procedure for using the ARDL method is stated as thus; stationarity test is usually carried out first to find out whether variables are stationary at level or first difference that is I (0) and I(1); thereafter the co-integration bound test follow suit to ascertain the existence of long run and short run relationship between the dependent and independent variables (Pesaran, Shin and Smith, 2001). The long-run relationship is estimated using an appropriate lag selection criterion based on either the Akaike Information Criterion (AIC), the Schwarz Information Criterion (SBC), or the log-likelihood ratio test. They are considered as the appropriate lag selection criterion which is able to determine the true dynamics of the model. The third step is to estimate the short-run dynamic coefficients. The fourth stage involves testing for the stability of the model, by using the Cumulative sum of recursive residuals (CUSUM). The ARDL model is written as;

$$Y_t = \alpha_0 + \phi_t Y_{t-1} + \beta_t X_{t-1} + \varepsilon_t \quad (8)$$

where,  $Y_{t-1}$  and  $X_{t-1}$  are variables,  $\varepsilon_t$  is the vector of the random error term. The model can also be defined as ARDL (p, q) the p and q are lag of the parameter which forms Equation (6);

$$y_t = \alpha_0 + \sum_{i=0}^p \phi_i y_{t-i} + \sum_{j=0}^q \beta_j x_{t-j} + \varepsilon_t \quad (9)$$

### Cointegration Bound Test

It is used to determine the presence of long-run connection in a model, the  $F$ -statistics test is conducted for the collective significance of the coefficient of the lagged variables,  $H_0 : \phi_1 = \phi_2 = \phi_3 = \phi_4 = \phi_5 = 0$  against the alternative of  $H_1 : \phi_1 \neq \phi_2 \neq \phi_3 \neq \phi_4 = \phi_5 \neq 0$ . The calculated  $F$ -statistics is compared to the critical value. The null hypothesis is rejected if the calculated  $F$ -statistics exceeds the upper limit of critical value. The null hypothesis cannot be rejected if the  $F$ -statistic goes below the lower limit of critical value, implying that there is no long-run relationship between the variables; however, if the  $F$ -statistic falls inside the upper and lower limit, the result is considered inconclusive.

### Residual Diagnostic Tests

For reliability of estimates, the Ramsey RESET specification test, and the cumulative sum of recursive residuals (CUSUM) test was conducted to test for serial correlation and the ARDL model's stability respectively.

## 4. Results and Discussion

### 4.1 Descriptive Statistics

**Table 1: Descriptive Statistics**

	RGDP	GE	PS	RQ	CC	RL	VA
<b>Mean</b>	4.62414815	0.15208	-1.78215	-0.68227	-1.14787	-1.07776	-0.70024
<b>Median</b>	5.02	0.183661	-1.87047	-0.71056	-1.07928	-1.06105	-0.70022
<b>Maximum</b>	15.33	0.259346	-0.58824	-0.41226	-0.90095	-0.80756	-0.31936
<b>Minimum</b>	-1.79	-0.92364	-2.21112	-0.9844	-1.50207	-1.51251	-1.5537
<b>Std. Dev.</b>	3.71141897	0.216753	0.345403	0.122338	0.134862	0.209984	0.25149
<b>Skewness</b>	0.44985595	-4.77248	1.796703	0.177197	-0.99442	-0.53519	-1.26302
<b>Kurtosis</b>	3.99636736	24.23676	6.767836	3.222072	3.621159	2.427827	6.178726
<b>Jarque-Bera</b>	2.02750809	609.8695	30.49781	0.196774	4.883976	1.657247	18.54586
<b>Probability</b>	0.36285425	3.70E-133	2.38E-07	0.906298	0.086988	0.43665	9.39E-05
<b>Sum</b>	124.852	4.106172	-48.118	-18.4214	-30.9924	-29.0995	-18.9065
<b>Sum Sq. Dev.</b>	358.140399	1.221532	3.101885	0.389134	0.47288	1.146429	1.644423
<b>Observations</b>	27	27	27	27	27	27	27

Source: Author's computation using E-views version 13

The average value of real gross domestic product, government effectiveness, political stability, regulatory quality, control of corruption, rule of law voice and accountability rate are 4.62414815, 0.15208, -1.78215, -0.68227, -1.14787, -1.07776 and -0.70024 respectively. The standard deviation which shows the nature of dispersal in the worth of the variables is small, which reveals that there has not been much increase in the value of the variables over the years considered for this study. The mean of the variables falls within the range defined by the minimum and maximum values of the variables. Real gross domestic product, political stability and regulatory quality rate have positive

skewness indicating they have a long right tale, while government effectiveness, control of corruption, rule of law, voice and accountability rate have negative skewness implying they have a long-left tale. The kurtosis of the variables is above 3, except for rule of law rate which is below 3 implying that most of the variable's distribution is thin and would turn leptokurtic. The jarque bera statistics means the series is not normally distributed with probability values greater than 0.05, but the normality assumption is not usually required for multivariate functions.

### 4.2 Unit Root Test Result

**Table 2: Unit Root Test Result**

		ADF Test		PP Test		
Variables	Level	1 <sup>st</sup> Difference	Remark	Level	1 <sup>st</sup> Difference	Remark
RGDP	0.139	0.000***	1(1)	0.168	0.000***	1(1)
GE	0.000***	0.000***	1(0)	0.000***	0.000***	1(0)
PS	0.895	0.003***	1(1)	0.822	0.000***	1(1)
RQ	0.104	0.002***	1(1)	0.100	0.002***	1(1)
CC	0.001***	0.003***	1(0)	0.355	0.010***	1(1)
RL	0.001***	0.008***	1(0)	0.178	0.005***	1(1)
VA	0.059***	0.794	1(0)	0.004***	0.002***	1(0)

**Note:** \*\*\* the hypotheses of a unit root is rejected at 1% significant level. H<sub>1</sub>: individual unit root process

The Augmented Dickey Fuller (ADF) unit root test and Philips Perron were conducted to check the level of variables stationarity and the result is presented in table

2. The results of ADF and PP GE and VA are stationary at level, that is I (0). While the ADF further revealed that RL and CC are stationary at I (0); and Philips

Perron shows that RQ is stationary at I (0). On the other hand, the ADF and PP shows that RGDP and PS are stationary at first difference which is I (1). This shows that all the independent variables of the model except PS estimated in this study is not stationary at level difference. This was achieved by comparing the ADF and PP statistics to their respective critical values at 1%. From the result, the ADF statistics are greater in absolute values than their respective critical values at different points of stationarity i.e I (0) and I (1). This could also be confirmed by their respective probability values which are also all significant at 1%. The stationarity of the variables at I (0) and I (1) further indicate the presence of long-run relationship. Hence, Autoregressive Distributive Lag Bound Co-Integration Test becomes necessary in this study to examine the existence or otherwise of a long-run relationship between the variables in the models.

### 4.3 ARDL Results

Based on the optimal lag structure automatically given by EViews, the result of the outcome of the ARDL bound test, short term and long-term results are presented as thus.

#### The ARDL Bound Test

Table 3 is the ARDL bound test result, which reveals that there is existence of long-run relationship between the dependent and independent variables in the model. The test result showed that the F-statistics which is 6.50, is above the upper bound critical values I (1) at all the levels of significance, indicating the existence of long-run relationship in the model. Based on this result, the study conducted the short-run and long-run forms of the ARDL model.

**Table 3: ARDL Bound Test Result**

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Significance.	I (0)	I (1)
F-statistic	6.501950	10%	2.334	3.515
K	4	5%	2.794	4.148
		1%	3.976	5.691

Source: *Author's computation using E-views version 13*

**Table 4: ARDL Short-Run Coefficient Estimates**

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
RGDP(-1)	-0.3862064	0.21555279	-1.791702	0.10069974
GE	46.3805328	42.9385678	1.08016022	0.303184726
GE(-1)	171.165567	57.7452191	2.96415131	0.012879331
GE(-2)	-18.348071	5.85815614	-3.1320556	0.009542614
PS	-5.543729	5.77436099	-0.9600593	0.357653313
PS(-1)	-16.327387	4.06269305	-4.0188581	0.002020049
PS(-2)	-3.0838011	3.08030286	-1.0011357	0.338275451
RQ	20.7272624	7.8242966	2.64908956	0.02262313
RL	-4.6301112	6.31796139	-0.7328489	0.478976706
RL(-1)	-9.1283342	6.94256419	-1.3148361	0.215316913
CC	2.69073372	6.68293805	0.40262736	0.694936434
VA	6.83478298	5.62446629	1.21518783	0.249733368
VA(-1)	20.0348468	6.59187724	3.03932341	0.011260197
C	-58.170973	25.2065902	-2.3077684	0.041461251
ECM(-1)	-1.386206	0.150252	-9.225857	0.0483

Source: *Author's computation using E-views version 13*



From the above table if all things were held constant and unchanged, the short run result of Real Gross Domestic Product (RGDP) has an insignificant impact on itself at lag one. Government effectiveness GE has significant impact on itself at lag 1. However, regulatory quality RQ has significant impact on itself. Moreso, the result shows that political stability PS, voice and accountability VA both have significant effect on themselves at lag 1 while control of corruption CC has no impact on itself. Averagely, it was deduced that the short run result has four variables that have impact on themselves; these variables are GE, RQ, PS and VA.

The error correction model (ECM) is expected to meet three conditions, it must be negative, less than one and significant. Therefore base on the result in the table above, the ECM has a negative value of (-1.386206)

and it has a probability value (P-value) of 0.0483 which is significant; this denotes that the speed of adjustment from disequilibrium in the preceding period to recent period is correctly signed and statistically significant (Narayan & Smyth 2005). Hence, as a result of differencing the variable due to unit root is corrected at a speed of 38% as shown by the coefficient of ECM (-1) from the result it can be deduced that the ECM (-1) coefficient is negative and significant at 5% level of significant. The constant term of the equation stood at -58.170973 which revealed that the value of RGDP when it was not affected by any of the independent variables, this further implies that the RGDP would be -58.170973 if all the independent variables of RGDP was accounted for by joint variation of a combination of the explanatory variables.

**Table 5: ARDL Long-run Coefficient Estimates**

**Selected model: ARDL(1,2,2,0,1,0,1)**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
<b>RGDP(-1)*</b>	-1.38621	0.215553	-6.43094	4.87E-05
<b>RQ**</b>	20.72726	7.824297	2.64909	0.022623
<b>RL(-1)</b>	-13.7584	7.478923	-1.83963	0.092943
<b>CC**</b>	2.690734	6.682938	0.402627	0.694936
<b>VA(-1)</b>	26.86963	5.399668	4.976163	0.000418
<b>C</b>	-58.171	25.20659	-2.30777	0.041461
<b>D(GE)</b>	46.38053	42.93857	1.08016	0.303185
<b>D(GE(-1))</b>	18.34807	5.858156	3.132056	0.009543
<b>D(PS)</b>	-5.54373	5.774361	-0.96006	0.357653
<b>D(PS(-1))</b>	3.083801	3.080303	1.001136	0.338275
<b>D(RL)</b>	-4.63011	6.317961	-0.73285	0.478977
<b>D(VA)</b>	6.834783	5.624466	1.215188	0.249733

**Source: Author's computation using E-views version 13**

Table 5 above shows the long run result of ARDL estimation. Government effectiveness (GE) has a positive and significant relationship with RGDP at lag 1, this is in conformity with the a-priori expectation, and this denotes that a unit increase in GE would lead to 18% increase in RGDP. This implies that if Nigeria's government becomes effective in the long it will boost the economy's RGDP by 18%. The study also revealed that regulatory quality (RQ) has a positive and significant relationship with RGDP; it shows that an

increase in RQ will lead to 20% increase in RGDP, this finding is in line with the a-priori expectation. However, the result reveals that rule of law (RL) and political stability (PS) have a negative relationship with RGDP; it further reveals that RL has a negative but significant relationship with RGDP while PS has a negative and insignificant relationship with RGDP. The result is not in line with the a-priori expectation. This is because rule of law and political stability are supposed to be positive. This shows that a decrease in RL and PS

will lead to 13% and 5% decrease in RGDP respectively. Furthermore, it was discovered that control of corruption has a positive but insignificant relationship with RGDP in Nigeria. This depicts that an increase in corruption will lead to 2% decrease in RGDP. This finding is in line with study of Jurčić, Franc and Barišić (2020). This shows that corruption is still prevalent in Nigeria, and it has contributed to the stifling of institutions in the country, this could be the reason why most institutions are weak in Nigeria. Also, voice and accountability VA has a positive but insignificant relationship with RGDP; this shows that an increase in VA will lead to 6% increase in RGDP. However, it was discovered to be significant at lag 1. Summarily, it was discovered that VA and GE have

positive and significant relationship with RGDP at lag1 while only RQ had positive and significant relationship with RGDP. This also reveals that PS, VA, CC and RL were insignificant implying that the institutions in Nigeria are weak. These findings are in consonance with the works of Nair, Arvin, Pradhan & Bahmani, (2021).

#### 4.4 Residual Diagnostic Test Results

Ramsey RESET specification test is presented below; the decision rule not to reject the null hypothesis for the diagnostics test is that the probability-value (p-value) has to be greater than 5 percent level of significance. Table 6 below presents the residual test results.

**Table 6: Residual Diagnostics Test Results of Ramsey RESET Test, Breusch-Godfrey Serial Correlation LM Test, and Jarque-Bera Normality Test**

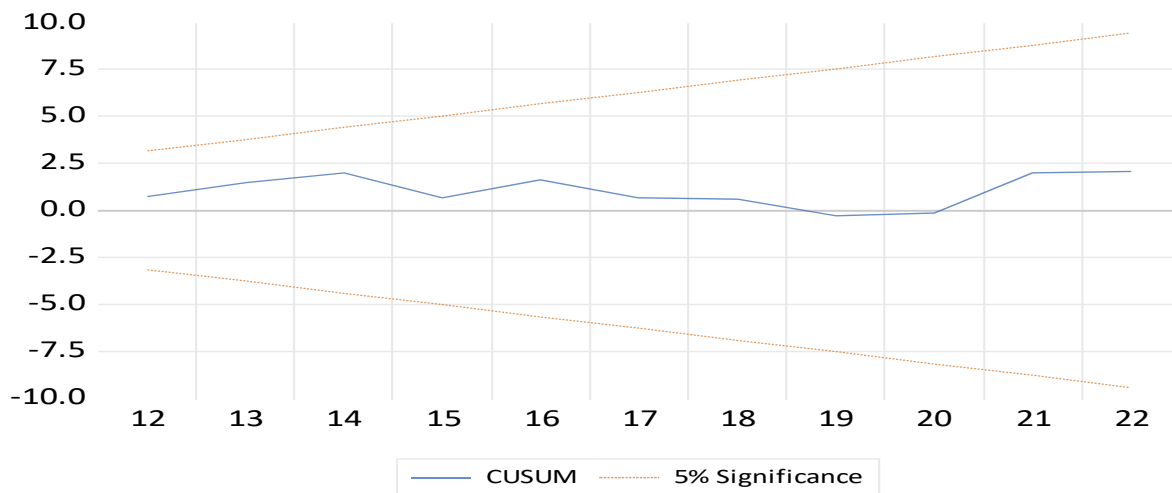
	Coefficients	Probability	
Ramsey RESET Test	F Stat.	2.085577	0.1793
	Obs*R <sup>2</sup>	4.743372	0.0933

*Source: Author's Computation using EViews version 13*

#### 4.5 Stability Test Result

The stability test result of the CUSUM is presented on Figures 1; the plot for the test statistic was on 95%

confidence interval indicating the model was stable. This is because the trend line in blue falls between the two red lines.



**Figure 1: CUSUM Plot**

*Source: Author's computation using E-views version 13*

## 5. Conclusion and Recommendations

The study examined the role of institutional quality on economic growth in Nigeria. The study also examined the causal relationship between the quality of institutions and economic growth based on time series data over the period of 1996–2022. Augmented Dickey Fuller and Phillips Perron unit root tests were applied to all selected variables. The study employed the ARDL cointegration approach; based on the findings, it was discovered that institutional quality has long run effect on economic growth in Nigeria. The study further revealed that Nigeria's institutions are weak; it revealed

that control of corruption, political stability, and rule of law are very weak indices of institutions.

The study therefore recommends that; a vigorous anti-corruption campaign should be taken very serious by EFCC and ICPC; and the agencies should be constituted by reputable staff to bring forth desired result. The national assembly members (both lower and upper chamber) should prioritize high and improved laws such as; life imprisonment or death sentence for political and public office holders found with corruption charges. This will help in minimizing corruption in the country.

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