Vol.7 Issue.2 June 2022

RSEP Review of Socio - Economic Perspectives
ISSN: 2149 - 9276
E-ISSN: 2547-9385

Political instability and economic growth in Nigeria

Taiwo Akinlo[1,•] , Omobola Hannah Arowolo [2,♦], Taofeek Bidemi Zubair[3,*]
[1] *Ph.D. Department of Economics, Adeyemi Federal University of Education, Ondo, Nigeria*
[2] *MSc. Department of Economics, Adeyemi Federal University of Education, Ondo, Nigeria*
[3]*Department of Economics, Adeyemi Federal University of Education, Ondo, Nigeria*

Article History

Received: 3 March 2022 Revised: 7 May 2022 Accepted: 18 May 2022 Available Online: 1 June 2022

Keywords: ARDL, economic growth, Nigeria, political instability.
JEL classification: P16, 040, B40, 055

Citation: Akinlo, T., Arowolo, O.H., Zubair, T.B. (2022). Political instability and economic growth in Nigeria, *Review of Socio-Economic Perspectives, Vol 7(2)*, 47-58.

Abstract

Using annual data spanning from 1984 to 2020, the study analysed the effect of political instability on economic growth in Nigeria. To explore both the short and long-run relationship, the Autoregressive Distributed Lag (ARDL) technique is used. The cointegration test shows that political instability and economic growth are cointegrated. In the short run, the finding indicated that political instability negatively impacted economic growth. Likewise, in the long-run, political instability harms economic growth. Government expenditure contributed to economic growth in the short-run and long-run. Gross capital formation and financial development have detrimental effect on economic growth. Based on the findings from this study, there is a need for the government to address the frequent political instability to achieve the expected long-term growth in the economy.

1. Introduction

Political instability is regarded as one of the hindrances to economic development. This is based on the premise that it serves as an obstacle to the long-term policies and thereby limiting policymakers to short-term macroeconomic policies. In addition, political instability results in frequent changes in policies and this, in turn, adversely affects the performance of the various sectors of the economy. Tabassam et al., (2016) emphasised that an unstable political environment reduces the level of investment in the economy and hence economic growth due to the uncertainty and volatility. Asteriou and Price (2001) argued that the patterns of government spending are affected by political instability as the government has to spend more to restore stability instead of on investment. Aisen and Veiga (2011) indicated that political instability reduces the level of productivity as well as the rate of human and physical accumulation while Kuznets (1966) linked the slow growth rate of an economy to political disorder. Barro (2013) claimed that the effect of economic policies on economic growth depends on the prevailing political conditions.

Several studies have reported a negative relationship between political instability and economic growth. For instance, studies like Gupta (1990), Barro (1991), Alesina, et al., (1996), Perotti (1996), Ades and Chua (1997) and Abdelhameed and Rashdan (2021) all reported an inverse connection between political instability and economic growth. However, studies on political instability and economic growth are scanty in Nigeria. This might likely be due to the unavailability of data as Gurgul and Lach (2013) linked the lack of attention on political instability and economic growth nexus in the past to insufficient data.

In recent times, most of the empirical studies that examined the relationship between political instability and economic growth have been criticised based on the data used to capture political instability. For instance, de

• **E-mail:** taiwoakinlo@yahoo.com & **ORCID:** https://orcid.org/0000-0002-1415-4241
♦**E-mail:** arowoloomobola@gmail.com
*E-mail: bidemizubair@gmail.com

DOI: https://doi.org/10.19275/RSEP129
Article Type: Original Paper

Haan (2007) argued that the most of the variables used in political instability-economic growth nexus suffered from measurement errors and this has cast doubt over the validity of their findings. According to Jong-A-Pin (2009), many attempts have been made to address the problem of measurement errors as some studies have resorted to construct a dimensional index using principal components analysis (PCA) while some studies used the discriminant analysis or logit analysis. Also, evidence from past studies showed that most of the studies which examined the connection between political instability and economic growth focused on panel data or cross-country analysis. For instance, Alesina et al. (1992, 1996); Mbaku (1988, 1992); Zureiqat (2005); Polachek and Sevastianova (2012); Okafor (2017); Elbargathi and Al-Assaf (2019); and Dalyop (2019) are panel studies while country specific studies on Nigeria are scanty.

The lack of sufficient studies on the connection between political instability and economic growth in Nigeria coupled with the issue of measurement error highlighted in previous studies motivate this study. This study intends to contribute to the literature by examining the impact of political instability on economic growth in Nigeria in the following ways. First, Nigeria is a nation has been experiencing significant levels of political instability since 1999 in which the findings from this study can help policymakers in making appropriate decisions. For instance, political instability has been a major issue since its independence in 1960. The frequent changes of government that is quite common since 1960 have promoted unstable economic policies, inconsistent economic planning and poor leadership. It has also constituted an adverse economic environment, which makes it difficult for rapid economic growth. Between 1966 and 1993, out of several coups that took place in Nigeria, six eventually led to the formation of new governments. Even after Nigeria successfully transited to the democratic system of government in 1999, the country has been facing a series of religious, community and ethnic crises that led to the loss of lives and livelihood.

Second, this study will provide robust and new evidence free from measurement error as this study employs new data set on various types of conflicts from the International Country Risk Guide (ICRG) for the analysis. The remaining parts of this study are organised as follows; Session 2 consists of the literature review; the methodology is presented in session 3; session 4 presents the measurement of the variables. Session 5 contains the empirical analysis while session 6 presents the conclusion and recommendation.

2. Literature Review

Regarding the nexus between political instability and economic growth, some studies investigated the relationship using time series while some studies use panel data. Starting with time-series studies, for instance, Ali, Hashmi and Hassan (2013) focused their attention on the effect of both economic and political factors on the volatile economic expansion and investments in Pakistan for the period 1972-2009. The study used factors such as corruption, political instability, frequent changes in regime, energy crisis and conflicts among political parties as non-economic factors. To analyse the long-run and short-run relationship between political instability and domestic private investments, the study used the ARDL cointegration approach along with Error Correction Model. The study found that the poor economic growth in Pakistan is caused by capital flight, which occurs because of the uncertainty created by non-economic factors. Like Ali, Hashmi and Hassan (2013), Sweidan (2016) employed the ARDL model and Kalman filter econometric techniques to investigate the connection between political instability and economic growth in Jordan. The study used data that cover the period 1967-2009. The study found that political instability produces a significant adverse effect on economic growth throughout the study period. The study also found that political instability has an adverse impact on government expenditure. Also, on the Pakistan economy, Tabassam, Hashmi and Rehman (2016) examined the connection between political unrest and economic growth using annual time series covering 22 years. The study used terrorism, election, regime and strikes to proxy political instability. However, the authors used ARCH and GARCH models instead of the ARDL model. The result from GARCH (1, 1) model in the mean equation indicated that only terrorism has an inverse relationship with the mean equation of GDP per capita. However, the results of the GARCH (1, 1) model with explanatory variables in the variance equation revealed that elections and regimes are the only two explanatory variables that impacted negatively the volatility of GDP. Jong-A Pin (2009) used Exploratory Factor Analysis to analyse if the different measurements of political instability will produce a different effect on economic growth and if this effect is causal. The study utilised 25 political instability indicators. The research found that from the dimensions of political instability utilised in the study, only instability of the political regime failed to impact economic growth positively. The study concludes that the four dimensions of political instability used have different effects on economic development.

Gong and Rao (2016) focused on investigating if the prolonged political instability experienced in Fiji would produce a harmful effect on the economy. The study covered the period 1970–2011 and used the Synthetic Control Method. The study confirmed that prolonged political instability constitutes a hindrance to economic growth during the study period.

On the panel studies, Aisen and Veiga (2013) focused on how political instability affects economic growth in a sample consisting of 169 developing and developed countries. The study covered the period 1960 to 2004. The study employed the system GMM technique for the estimation of the relationship. The result from the estimations showed that a high level of political instability contributed to the poor growth of GDP per capita. The study emphasised that irrespective of the channels, political instability impedes economic growth by reducing the level of productivity growth rate. In a similar study, Okafor (2017) used panel data from 15 members of the Economic Community of West Africa States (ECOWAS) countries to investigate the impact of political instability and economic growth for the period 2005 - 2012. The study used fixed effect and generalised method of moments techniques of analysis while different types of conflict were also used for the analysis. The results revealed that variables such as terrorism and others exerted a negative impact on economic growth in the selected countries. Gurgul and Lach (2013) were interested in determining the connection between political instability and economic growth. To achieve this objective, the study used 10 Central and Eastern European countries (CEE) while the study spanned through 1990–2009. The study found that when government change is used to define political instability, it has a detrimental impact on economic growth. For the period 1980 to 2013, Dalyop (2019) used data from 52 African nations to investigate the connection between political instability and economic growth. The panel analysis showed that there is a direct relationship between political stability and economic growth. The results further indicated that political instability constitutes an obstacle to economic growth. Also, the study established that a low level of economic growth worsens and promotes political instability in Africa.

3. Methodology

Econometric models that estimate the effect of political instability on economic growth are mainly multivariate regression models (Abdelkader, 2017). The functional form of the empirical model/equation for this study is specified as follows;

GDP = f(POL, GCF, FD, HUM, GOVE, FDI) (1)

where GDP is the aggregate output level, POL is political instability, GCF is gross capital accumulation, FD is financial development, HUM represents human capital, GOVE is the government expenditure and FDI is foreign direct investment.

The econometrics form of the model can take the general form as follow;

$$\Delta(GDP_t) = \gamma_0 + \gamma_1(POL_t) + \gamma_2(CGF_t) + \gamma_3(FD_t) + \gamma_4(HUM_t) + \gamma_5 GOVE_t + \gamma_6(FDI_t) + \varepsilon_t \quad (2)$$

The ARDL bound test approach[1] of the connection between political instability and economic growth in Nigeria is specified in the form of an unrestricted error correction model to test for cointegration as follows:

$$\Delta GDP_t = \beta_0 + \beta_1 GDP_{t-1} + \beta_2 POL_{t-1} + \beta_3 GCF_{t-1} + \beta_4 FD_{t-1} + \beta_5 HUM_{t-1} + \beta_6 GOVE_{t-1} + \beta_7 FDI_{t-1} + \beta_8 \sum_{i=1}^{n} \Delta GDP_{t-1} + \beta_9 \sum_{i=0}^{n} \Delta POL_{t-1} + \beta_{10} \sum_{i=0}^{n} \Delta CGF_{t-1} + \beta_{11} \sum_{i=0}^{n} \Delta FD_{t-1} + \beta_{12} \sum_{i=0}^{n} \Delta HUM_{t-1} + \beta_{13} \sum_{i=0}^{n} \Delta GOVE_{t-1} + \beta_{14} \sum_{i=0}^{n} \Delta FDI_{t-1} + \varepsilon_{1t} \quad (3)$$

where n represents the lag order and Δ denotes the first difference operator. GDP_{t-1} represents the lagged dependent variable. β_0 signifies the drift term and ε_{1t} sands for the residuals. On Eq. (3), we applied the ARDL bounds procedure as it permits a joint significance test of the null hypothesis of no cointegration ((H_0: $\beta_0 = \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = \beta_7 = 0$) against its alternative (H_1: $\beta_0 = \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = \beta_7 \neq 0$ that cointegration exists. To determine the presence of the cointegrating long-run relationship in the model, the F-statistics is employed. The calculated F-statistics will be compared to the critical values tabulated by Pesaran et al. (2001). Pesaran et al. (2001) computed two sets of critical values (lower and upper critical bounds) for a given significance level. One group shows that all variables are I(0) and the other group shows they are all I(1). Therefore, the H_0 hypothesis test will be rejected if the calculated F-statistics is greater than its upper critical value. This signifies the existence of the cointegrating long-run relationship. But the H_0 hypothesis will not be discarded if the calculated F-statistics is below its lower critical value. This suggests that the long-run cointegration relationship is not existing. Finally, if the calculated F-statistics is between a lower bond and an upper bond, the test will be inconclusive. Regarding the optimal lag selection, we employed the Schwarz Bayesian Criterion (SBC).

[1] It has the advantage of combining I(0) and I(1) variables together.

The ARDL model can be used to analyse both long-run and short-term associations between the variables. For the estimation of the long-term relationship, the following model is adopted;

$$GDP_t = \alpha_0 + \alpha_1 \sum_{i=1}^{n} GDP_{t-1} + \alpha_2 \sum_{i=0}^{n} POL_{t-1} + \alpha_3 \sum_{i=0}^{n} GCF_{t-1} + \alpha_4 \sum_{i=0}^{n} \Delta FD_{t-1} + \alpha_5 \sum_{i=0}^{n} HUM_{t-1} + \alpha_6 \sum_{i=0}^{n} GOVE_{t-1} + \alpha_7 \sum_{i=0}^{n} FDI_{t-1} + \varepsilon_{1t} \quad (4)$$

The ARDL-ECM model is used for short-term relationships. If there is co-integration between the variables, then it is acceptable to use the ECM model. When short-run dynamic parameters are obtained by estimating an error correction model related to long-run estimates, this model is derived. It is possible to present this as follows;

$$\Delta GDP_t = \alpha_0 + \alpha_1 \sum_{i=1}^{n} \Delta GDP_{t-1} + \alpha_2 \sum_{i=0}^{n} \Delta POL_{t-1} + \alpha_3 \sum_{i=0}^{n} \Delta GCF_{t-1} + \alpha_4 \sum_{i=0}^{n} \Delta FD_{t-1} + \alpha_5 \sum_{i=0}^{n} \Delta HUM_{t-1} + \alpha_6 \sum_{i=0}^{n} \Delta GOVE_{t-1} + \alpha_7 \sum_{i=0}^{n} \Delta FDI_{t-1} + \alpha_8 ECM_t + \varepsilon_{1t} \quad (5)$$

4. Measurement of Variable and Data Source

4.1 Data Description and Sources

We make use of annual time series data, which covers the period 1984-2020. The reason for choosing this period is based on data availability. Specifically, the data on the different types of conflicts from the (ICRG) starts in 1984. The variables include; GDP per capita (constant 2015 U.S. dollars) - this is measured by gross domestic product divided by midyear population. Gross capital formation (GCF) as % GDP– this is the gross fixed capital formation. Human capital (HUM) – this is measured by the total labour force. Political instability (POL) – political instability is proxied by internal conflict. Internal conflict is an appraisal of political viciousness in the nation and its potential effect on administration. The risk rating is made up of three subcomponents, each of which has a maximum score of four points and a minimum score of zero. A 4-point score equals very low risk, while a 0-point score equals very high risk. Financial development (FD) as % GDP is measured by domestic credit to private sector. Government expenditure (GOVE) – this is the government expenditure of consumption as % GDP. Foreign direct investment (FDI) as % GDP – This is the average of FDI net inflows to GDP. The data on GDP per capita, physical capital, human capital, government expenditure, financial development and foreign direct investment are obtained from the World Development Indicator. Data on internal conflict is the Political Risk Components (PRC) from the ICRG. The descriptive statistics of the variables are presented in appendix A1 while the correlation matrix of the variables is presented in appendix A2.

5. Empirical Analysis

5.1 Unit root test

The analysis of this study begins with the examination of the unit root test. This is very necessary to determine the stationarity of the variables. To achieve this, we perform two different unit root tests, namely, Augmented Dicky-Fuller (ADF) and Philip-Perron (PP). The results of the unit roots are presented in table 1. The Augmented Dicky-Fuller result shows that almost all the variables except the gross capital formation are integrated into the I(1) process. The gross capital formation is stationary in level. Likewise, the Philip-Perron test indicates that all the variables are stationary at first order aside from the gross capital formation which is stationary at level.

Table 1. Unit Root Test

Variables	**ADF**		**PP**	
	Level	**First Difference**	**Level**	**First Difference**
GDP	1.2307	-3.4855***	1.7197	-4.3454***
GCF	-1.8830*	-7.4995***	-2.1615**	-7.4292***
HUM	3.1662	-4.2110**	-1.8996	-2.7331***
POL	-1.3843	-5.8148***	-0.3656	-5.8167***
FD	0.3988	-5.5302***	-0.3130	-5.1344***
GOVE	0.2786	-5.0656***	-0.1524	-5.1601***
FDI	-0.4385	-6.000***	-0.0875	-6.3490***

Note: (**) (***) signifies significance at 5% and 1% level respectively.

Source: Authors Computation

5.2 Cointegration Analysis

Having determined the stationarity of the variables, the study then performs a cointegration test. This is necessary as it helps to determine if a long-run relationship exists or not among the variables employed in this study. Several econometrics techniques that can be used to explore the existence of long-run cointegration relationships among variables are existing in the literature. For instance, the fully modified OLS methodology by Engle and Granger (1987) and Philip and Hansen (1990) is commonly used for univariate cointegration in the literature. However, for multivariate cointegration, most of the studies are employing Johansen (1988) and Johansen and Juselius (1990) full information maximum likelihood methodology. Most of the studies are using Johansen cointegration because it has the advantage of accommodating bias due to the small sample size and can present more than a cointegration relationship. However, one major weakness of this technique is that it requires all the variables to be integrated in the same order. In this study, the ARDL methodology developed by Pesaran and Smith (1995) and Pesaran et al. (2001) is employed because it has overcome the weakness of Johansen's cointegration and is based on its advantages over other multivariate cointegration methodologies. The results of the cointegration test are presented in table 2. The results of the Bound test show that there is a long-run relationship among the variables. This is because the estimated F-statistics (12.7553) is above the upper bound of critical value (4.8370), which means that the null hypothesis of no co-integration is rejected.

Table 2. Cointegration results

Model	Calculated F -statistic	
GDP = f(GOVE, POL, GCF, FD, FDI, HUM)	12.7553	
	K = 6,	N= 37
Critical Values	Lower bound	Upper bound
5%	3.1700	4.8370
10%	2.5778	3.9920

Notes: Critical bounds of F-statistic are shown in Narayan (2005). K stands for the number of independent variables. N refers to the number of observations.

Source: Authors Computation

5.3 Long-run and Short-run Results

Determining the lag order of the model is important before the estimation of the long-term coefficient. Based on the actual statistics of sample data, Schwarz-Bayes Criterion (SBC) is used to identify the optimal lag order of all the variables in the model. The highest lag order among the variables is 2 and finally, ARDL (2,2,1,2,0,2,1) is identified as the most appropriate. The long-run result is presented in Table 3. The results in Table 3 indicate that political instability harms economic growth as its coefficient is negative and significant at 1%. This shows that political instability is detrimental to economic growth in the long-run. This finding is consistent with Aisen and Veiga (2011), Murad and Alshyab (2019), Ayessa and Hakizimana (2021). It also supports the theoretical argument that political instability polarises communities, making it more difficult for governments to reach an agreement on state capacity expenditure. Political instability distorts economic activities and hence lowering economic growth. The implementation of long term political and economic reforms needed in the economy is adversely affected by political instability and as a result, economic growth might not be feasible. The uncertainty created by political instability affects savings and investment decisions whereas a lack of sufficient savings and investment hinders long term economic growth. The coefficient of government expenditure is positive and significant which indicates that government expenditure enhances economic growth in sub-Saharan Africa in the long-run. This finding is in line with Bojanic (2013), Kapunda and Topera (2013). According to Lee, Won and Jei (2019), government expenditure can boost economic growth when it increases private productivity. The increase of government on health care and education can also lead to rapid economic growth. Gross capital formation produces a significant negative effect on economic growth. The coefficient of gross capital formation is significant at 1%. This is in line with Akinlo (2021) and Aslan and Altinoz (2021) who found that gross capital formation has a negative impact on economic growth. However, this finding does not support Nweke et.al (2017) and Ajose and Oyedokun (2018) who found an insignificant effect of gross capital formation on economic growth in Nigeria. This is an indication that Nigeria is deficient in infrastructural development. The lack of physical infrastructure will not allow the scarce resources to be put into rational use. The inefficient use of resources prevents large scale production and an increase in employment, which can enhance economic growth. Financial development harms economic growth. The coefficient of financial development is significant negative. This implies that financial development harms economic growth. This is in line with previous studies (e.g. Allen

et al. 2014; Adeniyi et al. 2015; Ductor and Grechyna, 2015; Akinlo 2021) which found a negative relationship between financial development and economic growth. According to Allen et al. (2014), financial development might likely hurt economic growth when there is too much money in the economy. Philippon (2010), Santomero and Seater (2000), and Murphy, Shleifer, and Vishny (1991) said that a rapidly growing financial sector generates high rents and attracts resources ideally ought to be utilized in other sectors, but when there's sub-optimal allocation of the resources that implies that feasible growth rates might not be attained, in the short and long term. Likewise, human capital is detrimental to economic growth. This finding is consistent with Aryeetey and Fosu (2005) and Asiedu (2010). However, this finding contradicts Adelakun (2011), Anyanwu et al., (2015) and Osoba and Tella (2017) who found that human capital enhances economic growth.

Table 3. Estimated ARDL long-run coefficients: ARDL (1,0,1,1,2,1,1)

Regressor	Coefficient	t-statistics	Probability
POL	-0.0330***	-11.4465	0.000
GOVE	0.0231***	11.5237	0.000
GCF	-0.0212***	15.7646	0.000
FD	-0.0056***	-0.0014	0.003
FDI	-0.0052*	-0.0027	0.094
HUM	-2.3861***	11.4667	0.000
C	22.3511***	13.6262	0.000

Note: (*) and (***) signifies significance at 5% and 1% level respectively.

Source: Authors Computation

Table 4 presents the short-run results under the error correction model. Starting with the coefficient of the ECM_{-1}. The coefficient of ECM_{-1} is negative which implies that it possesses the correct sign. In terms of significance, the coefficient of ECM_{-1} is statistically significant at 1%. Political instability has an inverse relationship with economic growth in the short-run. The coefficient of political instability is negative and significant at 1%. Government contributes to economic growth in Nigeria during the study period. Gross capital formation is unable to promote economic growth in the long-run. This means that, in the short-run, there is an inverse relationship between gross capital formation and economic growth in Nigeria. This is in line with Oyeleke and Akinlo (2019), who, in the short-run found a negative relationship between gross capital formation and economic growth. However, gross capital formation lagged by one period contributes to economic growth. Financial development fails to positively impact economic growth like in the long-run. Unlike in the long-run, foreign direct investment contributes to economic growth in the short-run. Human capital promotes economic growth in the short-run based on its positive and significant coefficient at 1%. The positive association between human capital and economic growth in the short-run may be attributed to the importance of human capital in enabling the quality of life and promoting social and economic change. Also, human capital enhances the absorption of modern technology in developing countries.

Table 4. Estimated ARDL short-run coefficients: ARDL (1,1,1,1,2,1,1)

Regressor	Coefficient	t-statistics	Probability
ΔGDP_{-1}	-0.4984***	-3.9461	0.002
ΔPOL	-0.0061***	-6.8484	0.000
ΔGOVE	0.0064***	6.9326	0.000
$\Delta GOVE_{-1}$	-0.0054***	-5.6763	0.000
ΔGCF	-0.0046***	-8.7749	0.000
ΔGCF_{-1}	0.0017***	3.8140	0.002
ΔFD	-0.0272***	-3.9406	0.002
ΔFDI	0.0034***	3.9406	0.002
ΔFDI_{-1}	0.0033***	3.3012	0.006
ΔHUM	0.6686***	3.3002	0.006
ECM_{-1}	-0.4648***	-13.3416	0.000

Note: (***) signifies significance at 1% level.

Source: Authors Computation

5.4 Diagnostic Tests

The diagnostic tests are presented in appendix A3. J-B normality is employed to test the distribution of the residual. This is often important since one of the presumptions of CLRM residual is normally distributed with zero mean and constant variance. To test for serial autocorrelation in the model, the Breusch-Godfrey LM test is employed while Autoregressive conditional heteroskedasticity (ARCH) is used to check the autocorrelation in the variance of the error term. Ramsey's reset test is used to test the functional misspecification of the model. The results from the diagnostics tests indicate there is no misspecification of the model. Likewise, heteroscedasticity and serial correlation problems are absent. For instance, the probability of the J-B normality residual is insignificant which means the residual is normally distributed. Likewise, the probabilities of Ramsey's reset test and Autoregressive conditional heteroskedasticity are insignificant which shows that the model is well specified and has no heteroskedasticity problem respectively.

5.5 Stability Test

According to Bahmani-Oskooee and Brooks (1999), a stability test is important because the cointegration of variables does not imply the stability of the estimated coefficients. Therefore, to verify the stability of the models, the study plots the cumulative sum of recursive residuals CUSUM and the cumulative sum of recursive residuals of square CUSUM. We present the stability results in appendix A4. From the figure, the graph of CUSUM and CUSUMS statistics lies between the critical bounds. This indicates that the estimated coefficients are stable. Likewise, the long-run estimates are stable in the ARDL Models because the divergence in CUSUM and CUSUMS graphs is absent.

6. Conclusion and Recommendations

This study examines the impact of political instability on economic growth in Nigeria during the period 1984-2020. Using the ARDL model, the study established that political instability harms economic growth in both the short-run and long-run. The study also found that gross capital formation and financial development have a negative relationship between gross capital formation and economic growth in both the short-run and long-run. Government expenditure is found to contribute to economic growth in the study in both short-run and long- run. Foreign direct investment and human capital have a negative effect on economic growth in the long-run but contribute to economic growth in the short-run.

The findings from this study have some implications. The negative effect of political instability on economic growth found in this study call for the government effort reduces political instability in the country. Political instability makes business transactions difficult among different ethnic groups due to a lack of trust. The fear of attack on business during conflict affects business decisions and the level of investment. The aftermath effect of

a conflict can also has great consequences on economic growth. The fact that economic activities are paralysed during the political crises is an indication that economic growth will be affected. The loss of businesses leads to an increase in the level of unemployment, which worsens the economic situation. Business cannot thrive in an unconducive environment as no investors will be motivated to invest in an environment that is not safe for business. To minimise the occurrence of political instability, the study recommends the following; First, the government must reduce the level of unemployment in Nigeria. The high level of unemployment promotes political instability. Many graduates possess the necessary skills and education to contribute to economic growth but are unemployed. Most of these people can easily be manipulated into crime in an attempt to survive. People that fully employed and busy can hardly be used as a weapon of violence. The political leaders usually take advantage of the unemployed and used them as political thugs to cause destruction and promote violence during and after the election. Reducing the level of unemployment by the government will also reduce the level of poverty in the country. There is a high level of poverty in Nigeria today, more than in the past decades. People resorted to all kinds of crimes to evade poverty. The high level of unemployment, corruption, inconsistent policies of the government and bad leadership has increased the level of poverty geometrically in Nigeria. There is currently a high level of crimes such as kidnapping, fraudsters, banditry and burglary, which are highly connected to the level of poverty. Second, there is a need for the government to establish special organs or agencies that will maintain equal rights for all ethnic groups and religious groups, and hold a constructive dialogue. Those agencies will serve as regulators, which can promote peace and be able to devise a solution for the resolution of differences based on the needs of different ethnic groups and religious groups. The agencies must also be saddled with the responsibility of ensuring that various ethnic and religious groups are treated equally and benefit in the sharing of national wealth.

Table A1. Descriptive Statistics of the Variables

	Mean	Median	Max	Min	Std. Dev.	Skew.	Kurtosis	Obs.
GDP	3.2689	3.2464	3.4295	3.1505	0.1029	0.3007	1.5121	37
GCF	29.6318	27.8659	53.1867	14.9039	11.5748	0.2638	1.9104	37
LAB	7.6440	7.6511	7.7579	7.5023	0.0807	-0.2464	1.7369	31
GOVE	4.1902	2.1485	9.4483	0.9112	3.1525	0.4639	1.6257	37
POL	7.1793	6.5	11	4.58	1.7386	1.0432	3.0142	33
FD	9.9568	8.4351	19.6256	4.9575	3.7420	1.0469	3.5028	37
FDI	3.0932	2.1913	8.3119	0.0185	2.4410	0.4609	1.9991	37

Appendix A2: Correlation Matrix

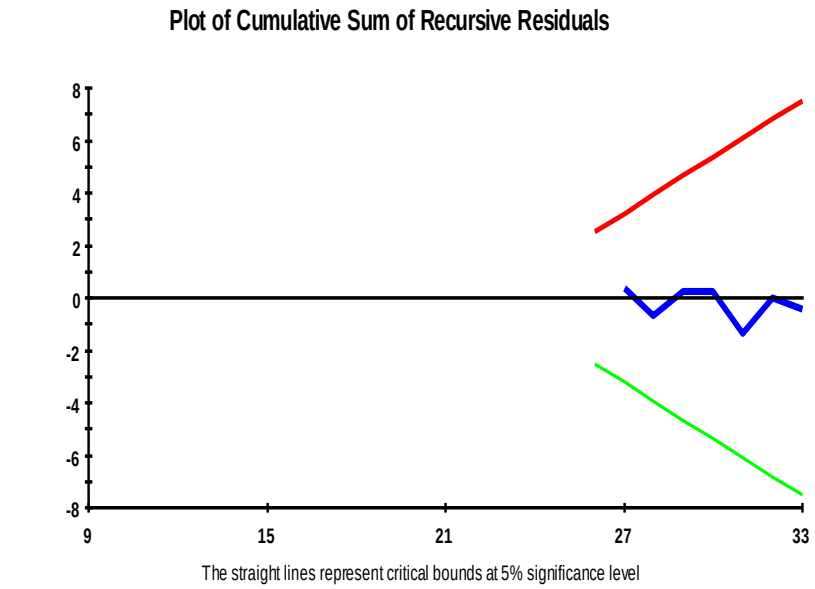
	GDP	GCF	LAB	GOVE	INTC	FD	FDI
GDP	1						
GCF	-0.8880	1					
LAB	0.8937	-0.9809	1				
GOVE	0.8601	-0.8179	0.8201	1			
POL	-0.6054	0.5165	-0.5828	-0.4934	1		
FD	0.7283	-0.7513	0.7679	0.8228	-0.4551	1	
FDI	0.7083	-0.7125	0.7578	0.8090	-0.442	0.6584	1

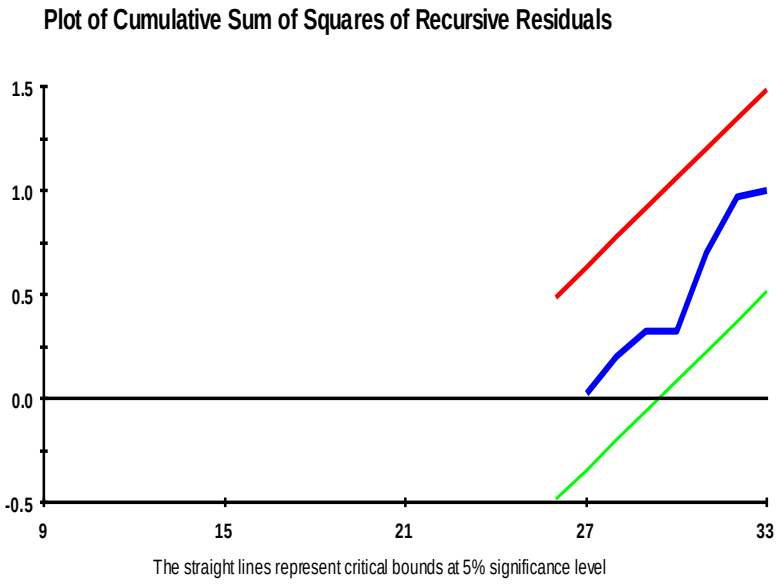
Appendix A3: Diagnostic Tests

ARDL – VECM model diagnostic tests

Test statistics	LM
Functional form	$\chi^2(1) = 2.2770\ (0.131)$
Normality	$\chi^2(2) = 3.3558\ (0.187)$
Heteroscedasticity	$\chi^2(1) = 0.4545\ (0.500)$

Appendix A4





References

Abdelhameed, F. A. & Rashdan, A.M. (2021). A Deeper Look into Political Instability and Economic Growth: Case Study and Empirical Analysis on a Selection of Countries. *Research in World Economy*,12(3), 18-31

Abdelkader, H.E.M. (2017). Political Instability and Economic Growth in Egypt. *Review of Middle East Economics and Finance, 13(2),* 1-11

Adelakun, O.J. (2011). Human Capital Development and Economic Growth in Nigeria. *European Journal of Business and Management, 3(9),* 29-38

Adeniyi, O., Oyinlola, A., Omisakin, O., & Egwaikhide, F. O. (2015). Financial development and economic growth in Nigeria: Evidence from threshold modelling. *Economic Analysis and Policy*, *47*(2015), 11–21.

Ades, A. & Chua, H. (1997). Thy neighbor's curse: regional instability and economic growth. *Journal of Economic Growth,* 2, 279–304.

Aisen, A. & Veiga, F. J. (2011). How Does Political Instability Affect Economic Growth? (January 2011). IMF Working Paper No. 11/12, Available at SSRN: https://ssrn.com/abstract=1751422

Aisen, A. & Veiga, F.J. (2013). How does political instability affect economic growth? *European Journal of Political Economy*, 29(c), 151-167.

Ajose, K. & Oyedokun, G.E. (2018). Capital Formation and Economic Growth in Nigeria. *International Accounting and Taxation Research Group*, Faculty of Management Sciences, *2(2),* 131-142

Akinlo, T. (2021). Financial Development, Real Sector and Economic Growth in Sub-Saharan Africa: The Threshold Effect, *Journal of African Business*, 22(4), 603-626

Allen, F., Carletti, E., Cull, R., Qian, J., Senbet, L., & Valenzuela, P. (2014). The African financial development and financial inclusion gaps. *Journal of African Economies*, *23(5)*, 614–642.

Alesina, A., Devleeschauwer, A., Easterly, W., Kurlat, S. & Wacziarg, R. (2003). Fractionalization. *Journal of Economic Growth*, 8, 155-194.

Alesina, A. Ozler, S, Roubini, N. & Swagel, P. (1992). "Political Instability and Economic Growth*",* National Bureau of Economic Research.

Alesina, A. Özler, S. Roubini, N. & Swagel, P. (1996). Political instability and economic growth. *Journal of Economic growth,* 1(2), 189-211.

Ali, H.S, Hashmi, S.H & Hassan, A. (2013). Relationship Between Political Instability and Domestic Private Investment in Pakistan: A Time Series Analysis (1972-2009). *Pakistan Business Review, 15(1),* 1-26.

Anyanwu, S.O., Adam, J.A., Obi, B., & Yelwa, M. (2015). Human Capital Development and Economic Growth in Nigeria. *Journal of Economics and Sustainable Development*, *6(14)*,16-26.

Apuwabi O. O. E. (2018). The Effects of Religious Crisis on Economic Development in Nigeria. *International Journal of Academic Research in Business and Social Sciences*, *8(6),* 321–330.

Aryeetey, E., & Fosu, A. K. (2005). "Economic Growth in Ghana: 1960-2000," (*African Economic Research Consortium)* AERC Growth Project Workshop, Cambridge.

Asiedu, M. (2010). Trade liberalization and economic growth in Ghana: *1986-2007.* Unpublished Master's Thesis, Kwame Nkrumah University of Science and Technology, Kumasi.

Aslan, A. & Altinoz, B. (2021). The impact of natural resources and gross capital formation on economic growth in the context of globalization: evidence from developing countries on the continent of Europe, Asia, Africa, and America.

Asteriou D, & Price, S. (2001). Political instability and economic growth: UK time-series evidence. *Scottish Journal of Political Economy,* 48(4), 383-399.

Ayessa, E. B & Hakizimana, J. (2021). Effects of Political Instability on Economic Growth in the Republic of Congo. *Modern Economy*, 12, 1896-1912.

Bahmani-Oskooee, M. & Brooks, T.J. (1999). Bilateral J-curve between US and her trading partners. Weltwirtschaftliches Archiv, 135, 156-165.

Barro, R.J. (1991). Economic growth in a cross-section of countries, *The Quarterly Journal of Economics, 106 (2),* 407-443.

Barro, R. J. (2013). Education and economic growth. *Annals of Economics and Finance,* 14(2), 301-328.

Basuchoudhary, A. & Shughart, W.F. (2010). On Ethnic Conflict and the Origins of Transnational Terrorism. *Defence and Peace Economics, 21(1),* 65-87.

Bojanic, A.N., (2013). The Composition of Government Expenditures and Economic Growth in Bolivia. Latin American Journal of Economics, 50(1), 83–105.

Canci, H, & Odukoya, O.A (2016). Ethnic and religious crises in Nigeria: a specific analysis upon identities (1999-2013). *Afr. J. Conf. Resol. 16(1),* 87-110

Chen, B. & Feng, Y. (1996). Some political determinants of economic growth: theory and empirical implications. *European Journal of Political Economy*, 12(4), 609–627.

Dalyop, G.T. (2019). Political instability and economic growth in Africa. *International Journal of Economic Policy Studies, 13,* 217–257..

De Haan, J. (2007). Political institutions and economic growth reconsidered. *Public Choice* 131, 281–292.

Ductor, L. and Grechyna, D. (2013). Financial Development, Technological Progress and Economic Growth. SSRN Working Paper No.1997526.

Ductor, L. & Grechyna, D. (2015). Financial development, real sector, and economic growth. *International Review of Economics and Finance*, *37*(C), 393–405.

Engle, R. & Granger, C. (1987) Cointegration and Error Correction: Representation, Estimation and Testing. *Econometrica*, 55, 251-276.

Easterly, W. & Levine, R. (1997). Africa's Growth Tragedy: Policies and Ethnic

Divisions. *The Quarterly Journal of Economics, 112(4),* 1203-1250.

Elbargathi, K. & Al-Assaf, G. (2019). The Impact of Political Instability on the Economic Growth: An Empirical Analysis for the Case of Selected Arab Countries. *International Journal of Business and Economics Research, 8(1),*14-22

Kimaro, E.L, Keong, C.C & Sea, L.L. (2017). Government Expenditure, Efficiency and Economic Growth: A Panel Analysis of Sub- Saharan African Low-Income Countries. African. *Journal of Economic Review, 5(2),* 34-54

Gong, X. & Rao, M. (2016). The economic impact of prolonged political instability: a case study of Fiji. *Policy Studies, 37(4),* 370-386.

Gurgul, H. & Lach, L. (2013). Political instability and economic growth: Evidence from two decades of transition in CEE. *Communist and Post-Communist Studies*, 46 (2013) 189–202.

Gupta, D. (1990). *The Economics of Political Violence: The Effect of Political Instability on Economic Growth*. New York: Praeger Publishers.

Johansen, S. (1988). Statistical analysis of cointegration vectors. Journal of Economic Dynamics and Control, 12(2–3),231-254.

Johansen, S. & Juselius, K. (1990). "Maximum Likelihood Estimation and Inference on Cointegration with Applications to the Demand for Money," *Oxford Bulletin of Economics and Statistics, 52,* 169-210.

Jong-A-Pin, R. (2009). On the measurement of political instability and its impact on economic growth. *European Journal of Political Economy, 25,* 15–29

Kuznets, S. (1966). Modern Economic Growth, New Haven, CT: Yale University Press.

Lee, J.C., Won, Y.J. & Jei, S.Y. (2019). Study of the Relationship between Government

Expenditures and Economic Growth for China and Korea. *Sustainability*, 11, 6344; doi:10.3390/su11226344

Lindemann, S. (2008). "Do Inclusive Elite Bargains Matter? A Research Framework for Understanding the Causes of Civil War in Sub-Saharan Africa." Crisis States Discussion Papers, No. 15.

Mbaku, J.M. (1988). Political instability and economic development in Sub-Saharan Africa: Some recent evidence. *Review of Black Political Economy*, 17(1), 89-111.

Mbaku, J.M. (1992). 'Bureaucratic Corruption as Rent-Seeking Behavior', *Konjunkturpolitik* (Germany), 38(4), 247-65.

Murad, M.S. A. & Alshyab, N. (2019). "Political instability and its impact on economic growth: the case of Jordan", *International Journal of Development Issues*, 18(3), 366-380.

Murphy, K., Shleifer, M. A., & Vishny, R. W. (1991). The allocation of talent: Implications for growth. *The Quarterly Journal of Economics*, *106*(2), 503–530.

Nomor, D.T & Iorember, P.T. (2017). Political Stability and Economic Growth in Nigeria. *Journal of Economics and Finance, 8(2),*44-53

Nelson, R.R. & Sampat, B.N. (2001). Making Sense of Institutions as a Factor Shaping Economic Performance, *Journal of Economic Behavior & Organization*, 44(2001),31-54.

Nweke, G.O. Odo, S.I. & Anoke, C.I. (2017). Effect of Capital Formation on Economic Growth in Nigeria. *Asian Journal of Economics, Business and Accounting, 5(1), 1-16*

Nyiri, J. K. (2014). The Impact of Ethnic Conflict on Economic Development: The Case of Post-Election Violence in Kenya, 2007-2008. An unpublished thesis in the Institute of Diplomacy and International Studies (Idis), University of Nairobi.

Okafor, G. (2017). The impact of political instability on the economic growth of ECOWAS member countries, *Defence and Peace Economics*, *28(2)*, 208-229,

Okpanachi, E. (2010). Ethno-religious Identity and Conflict in Northern Nigeria: Understanding the Dynamics of Sharia in Kaduna and Kebbi. IFRA (Institut de Recherche français en Afrique) e-papers.

Osaghae, E.E. & Suberu, R.T. (2005). A History of Identities, Violence and Stability in Nigeria. Centre for Research and Inequality Human Security and Ethnicity, Working Paper, no. 6. Oxford University Press, Oxford.

Osoba, A.M. & Tella, S.A. (2017). Human Capital Variables and Economic Growth in Nigeria: An Interactive Effect, Euro-Economica, 36(1),

Oyeleke, O.J & Akinlo, T. (2019). Energy generation and economic growth: empirical evidence from Nigeria. *Environment, Development and Sustainability, 21(5)*, 1-15

Pesaran, M.H. & Smith, R. (1995). Estimating long-run relationships from dynamic heterogeneous panels, Journal of Econometrics,68(1), 79-113

Pesaran, M.H., Shin, Y. & Smith, R. (2001). Bounds testing approaches to the analysis of level relationship. *J Appl Econ*, 16, 289–326.

Perotti, R. (1996). Growth, income distribution, and democracy: what the data say. *Journal of Economic Growth*, 1, 149 – 187.

Phillips, P. & Hansen, B. (1990). Statistical Inference in Instrumental Variables Regression with I(1) Processes. Review of Economic Studies, 57, 99-125.

Philippon, T. (2010). Financiers versus engineers: Should the financial sector be taxed or subsidized? *American Economic Journal: Macroeconomics*, *2*(3), 158–182.

Polachek, S. & Sevastianova, D. (2012). Does conflict disrupt growth? Evidence of the relationship between political instability and national economic performance. *The Journal of International Trade & Economic Development*, *21(3)*, 361-388

Santomero, A.M., & Seater, J.J. (2000). Is there an optimal size for the financial sector? *Journal of Banking and Finance*, *24*(6), 945–965.

Sweidan, O. (2016). Political Instability and Economic Growth: Evidence from Jordan *Review of Middle East Economics and Finance*, 12(3), 279-300.

Tabassam, A.H, Hashmi, S.H & Rehman, F.U. (2016). Nexus between Political Instability and Economic Growth in Pakistan. Procedia - Social and Behavioral Sciences, 230 (2016), 325 – 334

Zureiqat, H.M. (2005). "Political Instability and Economic Performance: A Panel Data Analysis." Award Winning Economics Papers 1, 1–33.