



Political Stability, Corruption, and Economic Development: Evidence from WAMZ Countries

SuleYa'u Hayewa¹, Adijat O. Olateju²

¹Rabi'u Musa Kwankwaso College of Advanced and Remedial Studies

²Lagos State University

Corresponding Author: SuleYa'u Hayewa bukolarasaq4@yahoo.com

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ABSTRACT

This paper examines the political stability, corruption, and economic progress of the nations that make up the West African Monetary Zone (WAMZ) between 2000 and 2020. To prevent misspecification bias and therefore skewed statistical results, the common features of the panel data were examined first. First of all, the CD test did not find any evidence of cross-sectional dependency across the nations, validating the use of the conventional panel unit root, which does not account for cross-sectional dependence. According to Levin et al. (2002)'s panel unit root test, the variables are integrated of order zero, or I (0). Using the panel VAR framework as a basis, the paper investigates. Emotional intelligence data demonstrated that while corruption impedes regional economic growth, political stability and the rule of law foster it. According to the findings of variance decomposition, the factors under investigation either support or impede the WAMZ countries' economic development. Based on the results the paper recommends that, transparency and accountability at all level of government affairs as well as respecting the constitution in these nations should be preserved in order to overcome all social and political injustice among the countries under study.

INTRODUCTION

Inadequate basic needs, such as good health facilities, basic amenities, and nutritional issues, coupled with coup d'états and bad governance, social and internal insecurity, the crisis of religion and ethnicity, civil wars, an increase in the incidence of poverty, high unemployment, restlessness among young people, an increase in cases of corruption, and political instability continue to be major issues in the African countries despite nearly fifty years of pursuit of economic development and good welfare. Political instability and corruption are correlated with economic development, with developing nations typically experiencing higher levels of both than industrialized nations (Helliwell, 1994; Mauro, 1995; Montinola & Jackman, 2002; Schumacher, 2013). Widespread political instability and the issue of underdevelopment in African nations are related to the high rate of corruption as a result of the need for politicians, political leaders, and public servants to unlawfully amass wealth while using their positions of authority for personal benefit. Furthermore, political unrest and violence can hinder the development of the African economy by limiting access to property rights, security, capital formation, capital flight, discouragement of foreign direct investment, and capital inflow.

Numerous studies have demonstrated the detrimental effects of corruption on economic development (Gyimah-Brempong, 2002; Scheifer and Vishny, 1993) and the correlation between corruption and political instability (Abu et al., 2014; Mauro, 2004). However, some scholars have contended that political instability is the reason behind the high levels of corruption observed in numerous nations (Campbell and Saha, 2013; Zhang et al., 2009). According to some researchers, corruption may be advantageous economically because it allows for the effective delivery of government services while avoiding ineffective regulation. This theory, known as the "grease the wheels" approach, aims to address the issues of needless bureaucratic red tape and delays, which pose a significant obstacle to the kind of productive investment that spurs economic growth (Meon and Sekkat, 2005). According to the theory put forth by Alesina et al. (1996), frequent changes in government are thought to hinder development, but they can also promote it. For this reason, endogeneity needs to be addressed.

As a result, this study departs from earlier studies conducted in the area by examining the role that political stability plays in fostering economic development, as noted by Shabbir et al. (2016). Political stability is positively associated with economic growth and development. This study aims to examine the effects of political stability and corruption on the growth of the economies of the five countries that make up the West African Monetary Zone (WAMZ): Sierra Leone, Ghana, Guinea, Nigeria, and the Gambia.

LITERATURE REVIEW

Despite the abundance of research on political stability, corruption, and economic development that has been conducted worldwide, a final consensus among the scholars has not yet been achieved. Adefeso (2018), for example, investigated the impact of political stability and corruption control on economic development in African nations. The System General Method of Moment

(GMM) framework was utilized in the study, which involved pooling data from 37 African countries between 1996 and 2016. The study discovered signs of political stability in African nations, albeit not in a statistically meaningful way, and inadequate anti-corruption measures. The study also discovered that enacting laws to combat corruption and maintain political stability at the same time had a detrimental effect on regional development rather than being complementary. Given that both policies are equivalent in the context of the African economy, they ought to be implemented one after the other through reforms. This study also discovered that the ongoing application of the existing strategies to maintain political stability and successfully combat corruption may not have a favorable influence on Africa's growth. In order to ensure effective control of corruption in the region, the paper strongly advocates for gradual policy reform in the area and suggests reviewing current regulations.

Uddin et al. (2017) used data from 120 developing nations between 1996 and 2014 to study the impact of political stability on economic growth. The study used quintile regression and the rather sophisticated dynamic two-step system-GMM. The study's conclusion indicated that one important factor influencing economic growth was political stability. More significantly, it is discovered that political instability (or risk) is greater in OIC nations and that it inhibits economic progress. Political instability also seems to have a larger negative impact on economic growth in the lower- and middle-income OIC countries, possibly as a result of their weaker political and economic institutions. Furthermore, the OIC countries that rely heavily on oil are also shown to have far greater levels of political instability. Notably, in developing nations, political instability is likely to impact growth via the channels of investment and human capital accumulation. Ultimately, it is discovered that the OIC countries with greater or lower growth levels are equally affected by political stability and political instability. Thus, it is advised that all developing nations and the OIC countries in particular, build their political and economic institutions in addition to their human capital.

The impact of political institutions, democracy, civil liberties, and political rights on trade openness and the labor force participation rate in Africa has been examined by Cooray et al. (2017). Their findings generally show that stronger political institutions raise the labor force participation rate (LFPR), which in turn accelerates the economic growth of a nation. Put differently, growth can be impacted by political stability through a variety of means. Political stability fosters commercial prosperity, draws in both domestic and foreign capital, generates job opportunities, and encourages migration into urban areas, all of which raise aggregate demand and promote economic growth. In their 2017 study, Saha and Ali explored the relationship between corruption and economic development in MENA countries. They used both linear and non-linear effects to analyze their data. The outcome shows that there is an interacting relationship between the size of the government, political and economic liberties, and corruption. Additionally, the results show strong support and imply that corruption involving affluent countries' natural resources increases with prosperity.

Shabbir et al. (2016) investigated the relationship between political stability, economic growth, and corruption in eight developing Muslim nations. The study looked into the significance of the conditional relationship between political stability and corruption. Economic growth can be positively influenced by investment, population growth, and political stability, according to empirical data. On the other hand, corruption affects growth and is also influenced by a country's institutional quality. Corruption greases the wheels in less politically stable countries like Pakistan and Nigeria and grinds sand into the gears of the nations with higher degrees of political stability. Therefore, political stability promotes growth since it lessens social instability and political turbulence, which in turn supports investment and economic progress..

According to d'Agostino et al. (2016), who looked into how corruption affected military and investment spending across a panel of 106 countries, there is a strong negative correlation between corruption and economic growth when it comes to these two types of spending. The study concluded that fighting corruption will likely have positive indirect effects as well as direct benefits by lessening the magnitude of the military burden's negative effects. The results also show significant complementarities between military spending and corruption. Additionally, it is discovered that they hold up well to various corruption metrics, economic development levels, and nation-level groupings. This implies that measures to lessen military burdens and minimize corruption, such regional security accords, would have a significant effect on economic growth

METHODOLOGY

The econometric approach employed in the article is presented and discussed in this part. The first part of the section covers the characteristics and source of the data that this paper used. The variables and their construction are also covered. The statistical tests employed in the paper for pre- and post-estimation are covered in more detail in this section. Pre-estimation testing consists of panel unit root tests and CD tests to determine which unit root test is appropriate to perform. To determine the series' integration order and prevent statistical misspecification of the model, unit root tests were performed.

Sources of Data

The paper utilized secondary data, which was sourced from the world development indicators and world governance indicators (2020). The study uses panel data from five West African Monetary Zone (WAMZ) countries, and its time frame is from 2000 to 2020. The countries are Gambia, Ghana Nigeria, Guinea, and Sierra Leone. The variables are Per-Capita GDP proxy for Economic Development (GDP_P), Political Stability (PS) by Political Stability and Absence of Violence/Terrorism: Estimate, Rule of Law (RL) and Corruption (COR) proxy by Control of Corruption: Estimate. In order to reduce the disparity among the data, the data Per-Capita GDP proxy for economic development is transformed in to logarithm form.

Model specification

The model is specified as:

$$GDP_P = f(PS, COR, RL)$$

Where

GDP_P=Per-Capita GDP proxy for Economic Development

PS= Political Stability proxy by Political Stability and Absence of Violence/Terrorism: Estimate

COR= Corruption proxy by corruption perception index

RL= Rule of Law: Estimate

The econometric model is specified as:

$$GDP_{P_t} = \alpha_0 + \beta_1 PS_{it} + \beta_2 COR_{it} + \beta_3 RL_{it} + \epsilon_{it}$$

Where β_1, β_2 and β_3 are the coefficient of the variables, α_0 is the vector of constant, and ϵ_{it} is a white noise disturbance. The prior expectation of the parameters is β_1 and $\beta_3 > 0$ that is positive relationship with economic development, while $\beta_2 < 0$ that is negative relationship with economic growth .

Techniques of Data Analysis

The Pre- estimation Tests

Cross-sectional Dependency Test

The cross-section dependence test was created by Pesaran (2004). Testing the cross-sectional dependence of the arrangement is the main test to be conducted prior to further investigation at the series integration order. Thus, the fitting unit root series is selected in this analysis for the first time. Results that are biased could emerge from neglecting to take into account the cross-sectional dependence between the series (Breusch and Pagan, 1980; Pesaran, 2004). The following is a recommended test for the panel regressions' ordinary least squares (OLS) residual:

$$Z_{it} = \gamma_i + \delta_i y_{it} + \theta_{it} \dots \dots \dots 1$$

For γ_i and δ_i stand on intercept and slope, $i = 1, 2, 3, \dots, N$ are cross section dimension indexes and $t = 1, 2, 3, \dots, Q$ stands for time series dimension. For each $i, \theta_{it} \sim iid(0, \sigma_{\theta}^2)$ and for all t , while they could be cross sectional interrelated. The dependence of θ_{it} across i could occur in a different ways. It could result from unobserved common components of θ_{it} and θ_{ij} for $i \neq j$. the regressors may be stationary or non-stationary, and they may have lagged values of Z_{it} . The following is the CD test equation:

$$CD = \sqrt{\frac{2Q}{N(N-1)} \sum_{i=1}^{N-1} \sum_{j=i+1}^N \check{R}_{ij} \dots \dots \dots 2}$$

Panel Unit Root

This study presents the panel unit root test that was proposed by Levin and Lin (1992, 1993) and Levin, Lin, and Chu (2002) after (LLC 2002). LLC created a method for testing the hypothesis that every time series includes a unit root against the alternate assumption that every time series is stationary.

Hence, LLC presumes a homogeneous coefficient of autoregression between individuals. The LLC structure may be laid down as follows:

$$Z_{it} = \delta_i y_{i,t-1} + q'_{it} y + \theta_{it} \dots \dots \dots 3$$

Where q'_{it} are the deterministic variables, θ_{it} *isiid*(0, $\sigma_{i\theta}^2$) and $\delta_i = \delta$

Model Estimation: A Panel VAR

With panel-specific fixed effects denoted by the following system of linear equations, we examine a k-variate homogeneous panel VAR of order p as:

$$Y_{it} = Y_{it-1}A_1 + Y_{it-2}A_2 + \dots + Y_{it-p+1}A_{p-1} + Y_{it-p}A_p + X_{it}B + u_i + e_{it} \dots \dots \dots 4$$

For all $i \in \{1, 2, \dots, N\}, t \in \{1, 2, \dots, T_i\}$

where Y_i stands for (1×k) vector of regressand variables, X_{it} stands for (1×l) vector of exogenous covariates, and u_i and e_{it} are (1×k) vectors of regressand variable-specific panel fixed effects and individual errors, respectively. The (k×k) matrices $A_1, A_2, \dots, A_{p-1}, A_p$ and the (l×k) matrix B are parameters to be estimated. We assume that the innovations have the following characteristics: $E(e_{it}) = 0, E(e_{it}^j e_{it}^j) = \Sigma, \text{ and } E(e_{it}^j e_{is}^j) = 0 \text{ for all } t > s$

As in Holtz-Eakin, Newey, and Rosen (1988), we assume that the reduced-form parameters $A_1, A_2, \dots, A_{p-1}, A_p$, and B are common to all cross-sectional units and that they share the same underlying data generating mechanism. Panel-specific fixed effects are the model used to represent systematic cross-sectional heterogeneity. This configuration differs from random-coefficient panel VAR, where the parameters are estimated as a distribution, and time-series VAR, where the parameters are by construction particular to the unit under study. The aforementioned parameters can be estimated in tandem with the fixed effects or, as an alternative, in conjunction with ordinary least squares (OLS), with the fixed effects eliminated following some sort of variable transformation. After the estimate the PVAR is subjected to stability test in order to find out whether the PVAR result is stable or not

RESEARCH RESULT AND DISCUSSION

Cross-Sectional Dependence Test (CD Test)

Pesaran and Yamagata (2008) ran a cross-sectional dependence test to investigate the transmissive effects of shocks within the cross-sections. Table 1 displays three tests of cross-sectional dependency: the Pesaran CD test, the Pesaran Scaled LM test, and the Breusch-Pagan LM test. The first generation panel unit root test was made possible by the fact that, according to the results, none of the factors pointed to the existence of a common factor influencing the cross sectional units.

Table1 Cross-Section Dependence Test			
Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	29.5862	28	0.4023
Pesaran scaled LM	11.03605		0.1325
Pesaran CD	40.009508		0.1501

Source: Author’s Computation 2021

Panel Unit Root Test

The Leven et al. unit root test, which was proposed by Levin, Lin, and Chu (2002), is the panel unit root test that was performed in this paper. The test was calculated at level as shown in Table 2 below.:

Table 2. Levin et al Panel Unit Root Test

variable	Panel Unit Root at level	
	t-Statistic	Probability
LGDP_P	-1.76828	0.0385**
PS	-8.66136	0.0000*
RL	-2.75364	0.0029*
COR	-7.19479	0.0000*

Note:* &** are statistically significant at 1% and 5% level of significance

Source: Author's Computation 2021

The Levin et al unit root test with trend and intercept is displayed in Table 2. The outcome shows that all the variables were stationary at a level with varying degrees of significance. For instance, LGDP_P was stationary at the 5% level of significance, whereas PS, RL, and COR were stationary at 1% level of significance. In other words, the variables' integration is of order zero, or I(0).

Panel VAR estimation

In order to find the response of economic development (GDP_P) due to the shocks of Political stability (PS), Rule of Law (RL) and Corruption (COR) the paper estimates the PVAR and thereafter deduces Impulse response function and factor error variance decomposition in order to achieve the desire objectives of the paper. Thus, in order to prevent unbiased estimation, the stability of the PVAR must be examined prior to estimating the impulse response function and factor error variance decomposition. Table 3 shows the result of stability test and the PVAR satisfies the stability condition since all the eigenvalues lie inside the unit circle.

Table 3. PVAR Stability Test Eigenvalue

Real	Imaginary	Modulus
0.9737421	0	0.9737421
0.9551442	0	0.9551442
0.8437632	0	0.8437632
-0.0639611	0	0.0639611
All the eigenvalues lie inside the unit circle.		
pVAR satisfies stability condition.		

Source: Author's Computation 2021

Since the PVAR is stable, our main concern is to generate Impulse Responses function and Forecast Error Variance Decomposition from the PVAR estimate. The results of PVAR impulse responses is presented in Appendix

1and our objective is to look into the response of GDP_P due to a unit shocks on these variables namely PS, RL and COR in the WAMZ countries..

The results of the impulse responses in Table 4 shows one unit shocks of GDP_P account for positive response on itself throughout the 8 periods. Also, a unit shock of PS and RL account for a positive response of Economic Development throughout the 8 periods, while one unit shocks of COR account for a negative response to GDP_P in the WAMZ countries throughout the 8 periods under study. This implies that political stability and rule of law have positive shocks/impact on economic development and corruption has a negative shocks/impact on economic development among the countries under study in the West African Monetary Zone.

Table 4 Impulse Response Functions

Response of GDP_P				
Periods	LGDP_P	PS	RL	COR
1	82198.13	381.8325	13159.26	-10477.3
2	88745.7	6065.982	12263.23	-9057.381
3	94643.36	9028.904	12974.93	-12403.46
4	102082.6	11209.28	13711.71	-13804.98
5	110123.9	12525.62	16116.17	-13158.48
6	118908.6	13532.88	17176.84	-13160.72
7	128444	14450.37	18355.57	-14199.42
8	138771.3	15397.67	19196.05	-15093.93

Source: Author's Computation 2021

Variance Decomposition

In the PVAR, the variance decomposition tells us how important each random innovation is in influencing the variables, whilst the impulse response functions track the impact of a shock to one endogenous variable on the other variables. Table 4 displays the PVAR Forecast Error Variance Decomposition, emphasizing the percentages of forecast error in GDP_P that are attributed to the study's PS, RL, and COR. The results indicate that GDP_P account for more than 65% variation on itself at the end of the period even though at the first and second periods it account for 100% and 90% variation for itself respectively. It is also reveals from the Table 4 that PS accounting for more than 14% variation of GDP_P at the end of the period, RL account for more than 15% variation at the end of period. While COR account for less than 6% variation of GDP_P in the WAMZ countries over the period under study.

Table 4 Forecast Error Variance Decomposition Dependent Variable GDP_P

Periods	LGDP_P	PS	RL	COR
1	1	0	0	0
2	0.9016714	0.0437178	0.0200793	0.0344432
3	0.8304957	0.0944309	0.0345726	0.0493832
4	0.7877016	0.1128525	0.0655152	0.0450978
5	0.7583863	0.1247904	0.088235	0.0462572
6	0.7180174	0.1289214	0.1121342	0.051003
7	0.684165	0.1357962	0.1336702	0.0513256
8	0.6557841	0.1420193	0.1545747	0.0500405

Source: Author's Computation 2021

CONCLUSIONS AND RECOMMENDATIONS

The West African Monetary Zone (WAMZ) countries' political stability, levels of corruption, and economic growth have all been examined in this research from 2000 to 2020. In order to prevent misspecification bias, the common features of the panel data were initially examined. The CD test revealed cross-sectional independence among the countries under investigation, opening the door for the application of the first-generation panel unit root test. The results of panel unit root test proposed by Levin et al (2002) revealed that the variables are integrated of order zero i.e. $I(0)$. Based on this, the paper explores within the panel VAR framework that political and rule of law are the economic development promoters while corruption hampers economic development in the region. The results from variance decomposition indicate that the variables under study contribute or hinder the economic development in the WAMZ countries.

Based on the results the paper recommends that, transparency, accountability in all government affairs, as well as respecting the constitution in these nations should be preserve to overcome all social and political injustice among the countries under study.

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