Governance, Macroeconomic Convergence and Development in West African Monetary Zone

Adedokun, Adebayo S.[•]
Department of Economics,
University of Lagos, Lagos, Nigeria

Olumide, .I. Ogunyemi
Agriculture Extension and Management,
Lagos State Polytechnic, Lagos, Nigeria,
email woleoguns@yahoo.com, 234-8023124607

Iwegbu, Onyebuchi
Department of Economics, University of Lagos,
Email: onyebuchiiwegbu.oi@gmail.com, 234-8080668000.

Abstract

The study interrogated the relevance of governance for macroeconomic convergence criteria and development in West African Monetary Zone (WAMZ) comprising Gambia, Ghana, Guinea, Nigeria and Sierra Leone. The methodology of the study involved the Fully Modified Ordinary Least Square Regression, using time series data (1996 – 2015) from the five countries. The study used five proxies for governance variables, namely, Control of Corruption, Rule of law, Government effectiveness, Political Stability and Attraction of investment. The results showed that government effectiveness and political stability did not enhance economic development. The result revealed that rule of law and government effectiveness have appreciably enhanced economic development but control of corruption, political stability and investment attraction have not. The study concluded that for WAMZ to achieve the macroeconomic convergence and stability within its fold there is need for quality representative democracy that will work through institutional reforms and deliver set targets within and across the member states. The fight against the dark spectra called corruption must be won within a reasonable time frame through strengthening of existing institutional arrangements that are saddled with the responsibility of promoting transparency in public domain.

Keywords: Corruption, Rule of law, Political stability, West African Monetary Zone.

[•] Address of Corresponding Author: Dr. Adebayo S. Adedokun, Department of Economics, University of Lagos, Lagos, Nigeria. Email: brobayunilag@gmail.com, mobile: 234-8027507021

Introduction

It is recently becoming obvious that the type and quality of Government in any country are important determinants of economic stability and patterns of production. This is why it is often very difficult, if not impossible to separate politics from economic outcomes. A fusion of politics and economics, usually referred to as political economy is not enough to understand the dynamic nature of relationships between political behaviour and macroeconomic characteristics of a country. In today's world, understanding political behaviour involves understanding the socio-economic circumstances surrounding the people of the country. It is also often necessary, but not a sufficient condition for proper understanding of the structure of production as some salient issues that determine the patterns of production are multi-faceted. The role of governance has been limited to the traditional function of ensuring a safe and sane society while the provision of economic pathway is often seen as the function of the private sector. The pattern of government as well as the level of its sophistication to a larger extent determines the level of economic stability and basic macroeconomic achievements. This is why the role of governance in ensuring economic prosperity cannot be over-emphasized. Hence, there is need for urgent attention to be placed on the role governance should play in ensuring macroeconomic stability and pursuing structural changes in output that will be mutually beneficial for regional economic interests such as the West African Monetary Zone (WAMZ).

Ekpo (2016) asserted that 'Governance, whether good or bad drives economic growth and development.' The type of growth whether positive or negative, in turn, depends on the quality of governance. Quality government is understandably expected to drive economic growth in the part of positive trend. Poor governance, apriori, will drive growth negatively as a result of poor understanding of what constitutes a good macroeconomic environment and the essential ingredients that will move the economy from the path of slow growth to a stage of economic emancipation. Ekpo also argued that 'it has become commonplace in recent times to ascribe the practice of representative governance and/or Western style democracy to good governance. In this connection, elections are held every four or five years to elect representatives of the people for governance. The right to vote and be voted for and respect for human rights among others are equated with good governance. If in this context, Ekpo's view of representative democracy as good governance is followed while bad governance is seen as an unauthorised rise to power, a common practice in Africa and some other developing countries, it would be safe to assume that the bane of Africa's underdevelopment and slow economic growth has been largely due to bad governance. Also, extensive literature on governance shows that good governance is tantamount to market efficiency, gaining competitive advantage and reducing the role of the state to mere provision of the enabling environment for market to thrive in the production and distribution of goods and services (Knack & Keefer, 1995; Rauch & Evans, 2000; Kaufmann, Kraay & Mastruzzi, 2005; Arndt & Oman, 2006; Khan, 2006; Kaufmann, Kraay & Mastruzzi, 2007; Khan, 2012). The combination of these two views of good governance forms the basic foundational building blocks for the study. Good governance should be seen as popular democracy and market oriented.

Macroeconomic convergence has been one of many aspirations of Regional Economic Communities (RECs) in West Africa, particularly the West African Monetary Zone (WAMZ) comprising Nigeria, Ghana, The Gambia, Guinea and Sierra Leone. The WAMZ came into existence through treaty ratification by the listed five West African countries in the year 2000. The WAMZ arrangement, however, was not fully operational until three years later and in 2010, Liberia joined the WAMZ. The WAMZ was set up with primary and secondary criteria for macroeconomic convergence. In all, exchange rates serve as cogent criteria for internal and

external balance both within and across member states. The achievement of convergence criteria depends on the management of individual member state economy and the political will to execute some policies such as fiscal discipline and inflation targeting. There are 10 convergence criteria divided into primary and secondary groups for the formation of the common currency in the zone that the member of WAMZ must achieve. Yearly single-digit inflation rate, fiscal deficit of no more than 4% of the GDP, central bank deficit-financing of no more than 10% of the previous year's tax revenues and gross external reserves that can give import cover for a minimum of three months are the four primary criteria. The six secondary criteria are prohibition of new domestic default payments and liquidation of existing ones, tax revenue should be equal to or greater than 20 percent of the GDP, wage bill to tax revenue equal to or less than 35 percent and public investment to tax revenue equal to or greater than 20 percent, stable real exchange rate; and positive real interest rate (Agabi, 2018; Godwin, 2018; Ujah, 2018).

The political economy of Nigeria and Ghana, as prominent members of the zone, will shed more light on the instrumentality of governance on the state of macroeconomic affairs within the WAMZ. As early as 1960s, Nigeria and Ghana had elected parliaments with strong leadership (Ekpo, 2016). This shows the seriousness with which nationalist movements in the sub-region worked at attaining self-governance. The basic macroeconomic indicators at that time were quite impressive. The growth rates were high and ambitious, the exchange rates were stable and desirable, the export sector was booming with Balance of Payments (BOPs) figures that were at best levels. As time went by, the growth rates started crashing and continued to plummet as a result of frequent changes in government from popular democracy to military dictatorship, which turned out to be a bad omen for the affected countries. The mismanagement of the economy by military governments in many African countries, just after independence, has shown that the importance of governance as a key macroeconomic variable cannot be overemphasised. Most military governments of many West African countries, including Nigeria, resorted to discretional means of macroeconomic management rather than following the dictates of the basic economic principles that lead to optimal economic outcome. This massive economic mismanagement ran the economies of most West African countries aground, with the exceptions of Cote de I'voire and Senegal that had more stable democracies at the time.

This downward trend in economic fortunes of most West African countries till late 1970s and early 1980s when there was global oil price shock, caused factor-dependent countries like Nigeria serious revenue shocks. The resultant revenue loss had several negative consequences on the affected countries' economic variables, including Balance of Payment deficits and continuous budget deficits. The budget deficits had to be financed by borrowing, and this led the countries concerned into huge debt burdens. This situation prompted the declaration of austerity measures by one or two governments of the WAMZ which included Nigeria.

The International Monetary Fund (IMF) advised countries with high debts burden that required IMF's support to consider the Structural Adjustment Programme (SAP). Nigeria and a few other countries in West Africa adopted SAP in 1985 as conditionality for obtaining the IMF loan and other macroeconomic management technical supports (Bangura, 1987; CBN, 2018). Using Nigeria as a point of reference, being the largest economy within the WAMZ, the implementation of SAP in the country against popular view of the Nigerian people by the then military government of General Ibrahim Badamosi Babangida (rtd.) had its attending consequences on the macroeconomic instability experienced during the late 1980s and mid-1990s. The exchange rate of Naira was seen as over-valued and then the need to devalue the naira against the dollar. As at 1985, the official exchange rate of Naira was 0.9996 to US$1.00.

By 1986, shortly after the first phase of SAP implementation in Nigeria, the exchange rate had jumped to ₦3.3166 to US$1.00, which was about 231.79% loss in the value of naira, just within a year. By 1990, naira exchange rate to dollar had become ₦9.00 to US$1.00. By 1995, the exchange rate had gone up to ₦84.5750 to US$1.00. This continued until 2017 when it rose to ₦309.00 for one US dollar (CBN, 2018). This instability in the exchange rate was actually triggered by bad governance. The government of the day took to discretion rather than the rules of macroeconomic management of exchange rate. It took the ill-advice of the IMF, which in development economic parlance is likened to false paradigm theory; in which a straight jacketed 'fit all' solution cannot work in some peculiar economies with specific countries' characteristics. Nigerian economy, though a fragile state, would have been better managed if the government in power had involved popular democracy, where issues such as the one stated here had to pass through wide consultations, debates and suggestions within the domestic sphere and the popular opinion adopted. This is because a policy that emanates from the people will be fully supported by them for implementation and success.

The purpose of this paper therefore, is to identify the role of governance in economic stability, to examine the trend of structural changes in output and evaluate the convergence criteria in WAMZ area in recent time. The paper is divided into five Themes: Theme one is the introduction while Theme two reviews relevant literature. The third theme deals with the methodology employed for the study while Theme four is the presentation of results. Theme five concludes the paper.

Literature
The role of government in development of an economy can no longer be wished away. It is conventional knowledge that most economies that have good governance in place have enjoyed robust economic growth and impressive development. Therefore, the decisions that are taken by the government in place have far reaching effects on the performance of the key macroeconomic variables. This is evident when a cursory comparison is drawn between the developed countries of the West and the developing countries in Africa and other parts of the world. One such macroeconomic decision that has had tremendous impact on the economic performance of the economies concerned is financial openness.

McKinnon (1973) and Shaw (1973) attributed the unsatisfactory growth performance of developing countries to financial repression. The two scholars postulated that in a developing country especially, when interest rate is liberalized, it will lead to increase in the real interest rate which will lead to increase in savings, spur investments and eventually lead to economic growth. Their initial framework focused on financial repression and the need to alleviate financial repression through allowing the market to determine real interest rates, removal of credit control among others. The outcome of repression, according to them will be low savings, high consumption, and lower investments which often lead to repressed economic growth. In justifying the recommendation of financial deregulation, the governments of Nigeria and some other West African member states like Ghana wholly adopted the IMF conditionality of financial liberalisation, with little or no understudy of its expected impact on the macroeconomic performance (Bangura, 1987; Boafo-Arthur, 1999).

In analysing the impact of good governance and anti-corruption reforms in developing countries, Khan (2006) argued that there is strong evidence that governance and institutions matter in accelerating development and in reducing poverty in developing countries. However, the evidence strongly suggested that there is no common set of institutions that all successful developing countries have shared. More worrying is the observation that governance and

institutions in the most successful developing countries have often been starkly at variance with the good governance model that international agencies are committed to. Even the most successful developing countries have suffered from significant corruption and other governance failures during the early stages of their development (Khan, 2006 & 2012). Also they did have significant governance capacities that allowed states to ensure that the conditions for rapid growth and sustained political legitimacy of the state were maintained. This implies that the development of any economy has a lot to do with the type of governance it is bequeathed with.

It can also be stressed that even the developing countries that have managed to develop in spite of poor governance and corruption would have since joined the league of developed nations if they had sound policies and more efficient and transparent government in place. This therefore justifies the increased call and pressure by Transparency International and other international bodies on governments of developing countries especially to reduce corruption and other negative activities that inhibit economic growth and development. The very desirable goals of good governance may be neither necessary nor sufficient for accelerating and sustaining development. Nevertheless, some types of anti-corruption and governance reforms are likely to be part of a sustainable development strategy in most countries.

The challenge for developing countries trying to devise institutional reform and anti-corruption strategies is to learn the right lessons from the international experience and create feasible governance reform agendas appropriate and feasible for their own circumstances (Khan, 2006). The author submits that corruption constitutes a huge cost to developing countries in many different ways, including the subversion of development plans, the diversion of resources that may have been invested productively, as well as disrupting the transparent and normal operation of markets and thereby creating uncertainty for investors.

The vicious cycle of corruption and bad governance is characterised by high transaction cost markets, weak property rights and welfare-reducing interventions, rent-seeking and corruption, unacceptable government and economic stagnation. Empirically, Khan (2006) found a weak relationship between the governance conditions identified in the good governance agenda and improved economic growth. This could be as a result of other more important governance conditions necessary for accelerating and sustaining economic growth that were not identified at all in the good governance approach. Hence, it could be as a result of omitted variables. This could also be explained by different vagaries involved in the developmental process of different economies. Different countries are faced with different developmental challenges and so perform differently when measured with similar yardstick. Though the result of his empirical analysis questioned whether the governance agenda can be interpreted as a precondition for development rather than being a list of important and desirable objectives, it is still plausible to believe that good governance has a significant positive impact on macroeconomic performance. He submitted that by focusing on a long list of unachievable goals as immediate reform priorities, developing countries were losing the opportunity to carry out critical reforms that enhance the chances of their development.

Analysing governance and development in selected African countries, Ekpo (2014) found that democracy had a positive impact on development and was statistically significant. He also found that both inflation and public sector investment were positively related to growth and income. Hence, the economies tended to grow with or without democracy. It was also discovered that the countries with high corruption perception index have negative fixed effects. He however advised that the results should be interpreted with caution. The mixed fixed effects suggested that

factors other than democracy like corruption, openness, and population growth, among others, may explain the growth of per capita income.

Theoretical Framework

From Schumpeter (1949) and Weiler (2007), the works of Vilfredo Pareto (1848-1923) and Gaetano Mosca (1858-1941) respectively as well as Dowse and Hughes (1983) were actually informed by the need to theorise about the nature of control and the role of leadership in good governance. The theory explained the role of leadership in governance as it affects public policy including all socio-economic and political matters. It is imperative, therefore, that the quality of leadership is taken very seriously due to the fact that the elites dominate the formal institutions of government thereby constituting determining factor in governance and decision making processes.

Experts have shown through theoretical and empirical literature that good governance is a critical important tool for socio-economic development. There has been continued pressure on governments to live up to expectations and adopt the right policies to engender sustainable development. In this regard, assessment of government is necessary through well defined criteria to ascertain how good a government has been. To achieve this, the World Bank (2007 & 2015) provided some indicators which can help to test the efficiency or otherwise of the government. These indicators include:

- Voice accountability – this measures political, civil and human rights.
- Political stability and absence of violence – this captures the likelihood of violent threat.
- Government effectiveness – measuring the competence of bureaucracy and the quality of public service delivery.
- Regulatory quality – which measures incidences of unfriendly market places.
- Rule of law – this helps to capture the quality of contract enforcement.
- Control of corruption – which deals with public power for private gain, including both petty and grand corruption.

Khan (2006) carried out a study on good governance using the listed indicators. Hence, to be classified as good in its own right, government should meet certain criteria, which include to be subjected to rules of justice and public interest, and also to be able to maintain the peace and implement decisions. The author reported that anti-corruption strategies should be designed to target the most destroying effects of specific types of corruption and structural drivers of corruption their responses have not been identified in developing countries towards good governance.

However, in Noman and Stiglitz's (2012) findings, such government indicators are seriously lacking in many African countries. They opined that to contribute to development opportunities, governments in Africa must be allowed to play active roles in promoting savings, education and technology. This work therefore tries to shed light on the role of government in the selected West African countries in enhancing economic development. It also attempts to look at the role that governments of the affected countries play in the convergence of the macroeconomic variables.

Methodology

The Neo-classical growth theory shows that there is a tendency over the long term to level the rate of income growth or that of per capita production in different zones. Also that convergence exists when a "poor" economy tends to increase more rapidly than a "rich" economy such that the poor economy will catch up with the level of income per capita production of the "rich "economy (Saka, Onafowokan & Adebayo, 2015). This study focuses on the conditional convergence in which case,

WAMZ countries are assumed to be identical in terms of references, technologies and economic policies.

In the Neo-classical model, economy's growth rate is predicted to be positively correlated with the distance that separates it from its own stationary. The criterion is that there will be a parameter convergence, say alpha, if the estimated alpha is significantly negative holding other effects constant. Hence, it is specified that:

$$GDP_{it} = \alpha_0 + \alpha_1 GDP_{it-1} + \alpha_2 INF_{it} + \alpha_3 EXCH_{it} + \alpha_4 TR_{it} + \alpha_5 RIR_{it} + \alpha_6 FD_{it} + \alpha_7 CAB_{it} + \mu_{1it} \quad \ldots\ldots\ldots 1)$$

where,
GDP = Gross Domestic Product (US$ or annual growth rate in per cent)
INF = Inflation Rate (%)
EXCH = Exchange Rate (%)
TR = Tax Rate (%)
RIR = Real Interest Rate (%)
FD = Fiscal Deficit (Naira)
CAB = Current Account Balance (US$ or Naira)
μ = Error term
α_0 = Intercept
$\alpha_{1 \ldots 7}$ = Coefficients
i = Country 1 to n
n = number of country
t = Period (Year)
t-1 = Previous year
μ = Error term

Equation 1 shows that inflation rate, exchange rate, tax rate, real interest rate, fiscal deficit and current account balance affect output. In equation 2 , we specify the impact of governance on economic development using the model earlier provided by Ekpo (2016):

$$PCI_{it} = \beta_0 + \beta_1 CC_{it} + \beta_2 RL_{it} + \beta_3 GE_{it} + \beta_4 PS_{it} + \beta_5 INV_{it} + \mu_{2it} \quad \ldots\ldots\ldots\ldots\ldots\ldots 2)$$

where,
PCI = Per Capita Income (US$ or Naira)
CC = Control of Corruption
RL = Rule of Law
GE = Government Effectiveness
PS = Political Stability
INV = Investment in the Country
β_0 = Intercept
$\beta_{1 \ldots 5}$ = Coefficients
i = Country 1 to n
n = number of country
t = Period (Year)
μ = Error term

Table 1 shows the definitions and measurements of all the variables in equations 1 and 2 as used for the analysis. The variables were used as indicated in the table. For instance, instead of the direct monetary value of GDP, the annual growth rate of GDP in per cent was used.

Table 1: Definitions and measurements of model variables

Code	Name	Measurement	Apriori expectation	Source
CAB	Current account balance of country i at time t.	The sum of net exports of goods and services, net primary income, and net secondary income as a percentage of GDP	Positive	WDI (2016)
CC	Control of corruption of country i at time t.	Perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. Ranging from approximately -2.5 to 2.5.	Positive	WDI (2016)
EXCH	Exchange rate of country i at time t.	LCU per US$, period average	Positive	World Bank 2016
FD	Fiscal deficit of country i at time t.	Central government debt, total (% of GDP)	Positive	World Bank (2016)
GDP	Gross Domestic Product of country i at time t.	GDP growth (annual %)	Dependent variable	World Bank (2016)
GE	Government effectiveness of country i at time t.	Perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. Ranging from approximately -2.5 to 2.5.	Positive	World Bank (2016)
INF	Inflation rate of country i at time t.	Consumer prices (annual %)	Positive	World Bank (2016)
INV	Investment of country i at time t.	Gross fixed capital formation (constant LCU)	Positive	World Bank (2016)
PCI	Per capita income of country i at time t.	GNI per capita (constant 2010 US$)	Dependent Variable	World Bank (2016)
PS	Political stability of country i at time t.	Perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism. Ranging from approximately -2.5 to 2.5	Positive	World Bank (2016)
RIR	Real interest rate of country i at time t.	Real interest rate (%)	Negative	World Bank (2016)
RL	Rule of law of country i at time t.	Perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. Ranging from approximately -2.5 to 2.5.	Positive	World Bank (2016)
TR	Tax rate of country i at time t.	Tax revenue (% of GDP)	Positive	World Bank (2016)

Source: Compiled from World Development Index and World Bank reports(2016)

To estimate equation 2, the Fully Modified Ordinary Least Square (FM-OLS) was employed. According to Phillips (1995), FM-OLS regression account for serial correlation effects and the endogeneity in the repressors that result from the existence of a co-integrating relationship. Also, with FM-OLS, it is possible to study the asymptotic behaviour of models with full rank I(1) and I(0) regressors or models with unit roots as well as models with only stationary regressors.

The choice of this methodology of analysis is appropriate considering the stationary property of the regressors in the models.

Data analysis

The descriptive analysis of the data used for the study is presented in table 2 showing the governance indicators and macroeconomic performance indicators.

Table 2: Descriptive analysis of Governance and Macroeconomic indicators of 5 West African Countries

Statistics	Governance indicators				Macroeconomic indicators			
	Political Stability	Rule of Law	Control of Corruption	Government effectiveness	Investment	Per capita Income	Current Account Balance	Exchange rate
Mean	-0.740	-0.808	-0.734	-0.815	1.99 trillions	876.966	-4.90153	1432.431
Median	-0.324	-0.981	-0.778	-0.956	994 billions	512.424	-5.91035	131.2743
*Max	0.722	0.163	0.073	0.130	10.6 trillions	2514.50	32.54303	7485.517
*Min	-2.370	-1.540	-1.333	-1.514	(102 billions)	264.751	-65.0289	0.163547
*Skew	-0.394	0.368	0.556	0.610	1.734	1.088	-0.8257	1.387126
*J-B	8.493	8.284	6.351	7.472	68.620	15.776	189.9247	34.05896
*Prob	0.014	0.016	0.042	0.024	0.000	0.0003	0.000000	0.000000

*Max= Maximum, Min= Minimum, Skew= Skewness, J-B = Jarque-Bera, Prob= Probability.
Source: Authors Computation using Data Extracted from World Bank, World Development Indicator, 2016**.**

From table 2, political stability and current account balance were skewed to the left. This implies that most of their values are at the right side of their mean values with extreme values to the left. But rule of law, control of corruption, government effectiveness, investment, per capita income and exchange rate were skewed to the right indicating that majority of their values are found to the left of the average values with extreme values on the right sides of the mean values. The per capita income within the WAMZ, on the average, was approximately US$877 and this is considerably very low. The current account balance as a ratio of GDP remained negative for the five countries; showing that the countries within the WAMZ have been on current account deficit for the periods under study.

The perceptions of the extent to which agents have confidence in and abide by the rules of society which is, rule of law averaged -0.808 which is close to the left extreme value of a normal distribution. This implies that the five countries (Gambia, Ghana, Sierra Leone, Guinea, and Nigeria) have not performed well in the level of rule of law. The explanation is similar for political stability, control of corruption and government effectiveness as there is that general negative perception on them. Also from table 2, it can be observed that all the variables are not normally distributed with their probabilities that are less than 5% which form the basis of rejecting the null hypothesis of normal distribution.

Table 3: Descriptive Statistics of Convergence Criteria

Criteria	GAMBIA		GHANA		SIERRA LEONE		GUINEA		NIGERIA		*AA.
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median	
Fiscal Deficit	78.42	69.43	*NA	*NA	167.6	153.46	*NA	*NA	21.83	11.78	65.14
Inflation rate	5.39	4.68	17.95	14.98	10.27	10.96	17.62	15.46	11.95	11.19	12.14
Real interest rate	21.84	21.68	*NA	*NA	8.56	8.22	14.34	15.01	5.34	7.75	11.87
Growth Rate	3.67	4.84	5.90	4.77	4.77	5.09	2.83	2.75	6.58	5.16	4.75
Tax Rate	8.95	7.85	16.15	14.87	8.52	8.43	*NA	*NA	2.67	2.27	8.99

*AA= Average of Averages, NA= Not Available
Source: Authors Computation using Data Extracted from World Bank, World Development Indicator, 2016**.**

Table 3shows how each country faired towards achieving the convergence criteria. As earlier discussed in the study, one of the primary convergence criteria is that the overall fiscal deficit to GDP ratio must be less or equal to 3% and not greater than 3%. From the result, fiscal deficit to GDP ratio for Gambia averaged 78.42%, this is over 2500% greater than the convergence criteria. Sierra Leone had 167.6% on average while Nigeria was the lowest at 21.83%. Even though Nigeria was the least, it did not achieve the fiscal deficit ratio. Indeed none of the countries was able to meet the fiscal deficit criteria for the primary convergence.

Examining inflation rate, the criterion agreed for the WAMZ is that average inflation rate must single digit. The inflation rate for Gambia averaged 5.39%, Ghana averaged 17.95%, Sierra Leone averaged 10.27%, Guinea averaged 17.62%, while that of Nigeria averaged 11.19%, these results show that only Gambia maintained a relatively stable inflation rate during the period under review and met the inflation rate target (Ujah, 2018).

Another criterion is that the countries must maintain a positive real interest rate. This is part of the secondary criteria. In this context, all the countries of WAMZ seemed to have performed well with Gambia having the highest real interest rate while Nigeria maintained the least. The growth rate criterion is that it must be equal to or greater than 7%. From the five countries examined, only Nigeria experienced a low growth rate which stood at 2.27% on the average while Ghana has the highest growth rate which stood at 16.15%. This analysis shows that on the average, some of the criteria were met and some were not met. These result agree with Agabi (2018), Godwin (2018) and Ujah (2018) that Gambia, Guinea and Nigeria attained three convergence criteria each; Gambia missed the fiscal deficit criterion, Guinea slipped on the gross external reserve, Nigeria missed inflation criteria, Ghana and Liberia achieved two criteria each, Ghana missed the inflation and fiscal deficit criteria, Liberia missed inflation and central bank deficit financing criteria while Sierra Leone met only one criterion, the gross external reserve.

Panel Unit Root Test
Panel unit root testing is an extension of the time series unit root testing. It differs significantly from time series unit root testing in a way such that it considers asymptotic behaviour of the time series dimension and the cross sectional dimension simultaneously since individual unit root under time series have limited power, we may end up having a quantum of them. Panel unit root provides a general platform to harmonise them statistically with a more predictive ability.

The study deploys Newey-West automatic bandwidth selection and Bartlett kernel test to examine the stationarity of the panel series and test the null hypothesis of unit root. It is expected that the series do not contain unit root in order to find relationship among the variables in the long run. The expectation is that the series may be stationary at either levels or at first difference, depending on the statistical characteristics of each category of series under investigation. The test is carried out at levels, and first difference using Automatic lag length selection based on Levin, Lin & Chu t* and Im Critical values.

Table 4: Panel Unit Root Result

Variables	At level		At first difference		
	Levin, Lin & Chu	Im, Pesaran	Levin, Lin & Chu	Im, Pesaran	Order of integration
CAB	-2.08928	-0.70896	-6.72623	-4.61663	I(1)
CC	-2.42043	-1.79289	-	-	I(0)
EXCH	0.18469	2.15697	-3.78730	-3.73756	I(1)
FD	-7.70004	-4.48144	-	-	I(0)
GDP	-2.91410	-3.38412	-	-	I(0)
GE	-3.38412	-3.39513	-	-	I(0)
INF	-2.81447	-2.99781	-	-	I(0)
INV	1.51466	2.39757	-2.27139	-2.58311	I(1)
PCI	0.00190	0.74360	0.16394	-2.15884	I(1)
PS	-5.08973	-2.84539	-	-	I(0)
RIR	-1.88599	-3.89581	-	-	I(0)
RL	-2.12710	-0.38804	-0.00222	-1.82429	I(1)
TR	-1.79429	-0.45376	-6.29805	-2.81536	I(1)

Source: Authors Computation using Data Extracted from World Bank, World Development Indicator, 2016**.**

The Levin, Lin & Chu t* Null hypothesis is assumes common unit root process while the Im Chi-square null hypothesis assumes individual unit root process. Table 4.3 reveals that control of corruption, fiscal deficit, growth rate, government effectiveness, inflation rate, political stability and real interest rate are stationary at level while current account balance, exchange rate, investment, per capita income, rule of law and tax rate are stationary at first difference.

Estimation of the Speed of Convergence
From the fixed effect least square (table 5), the partial effect of the initial output on the current output growth rate is negative but not significant at 10%, implying that a one percent increases in the initial income results in about 0.57 decreases in current income. The negative impact is a demonstration of the likely convergence among WAMZ countries. The result shows that poor countries in WAMZ are likely to grow faster than the rich countries and in the long run operate at approximately same income level. Once the countries meet the convergence criteria, then there will be unification in economic policies. Following the speed of convergence formula stated earlier, we can now estimate the half-life. From table 5, it can be seen that the speed of convergence estimated is 57% per year and the half-life is given as

$$Half-life = -\frac{\ln 2}{\ln(1+0.57)}$$

The half-life is -1.537. Thus the economies can make up for half of the distance that separates them from their stationary state. Although the R-Squared gives 0.59, it is still important to note

that the model explanatory variables explained variation in the model to the tune of 59 per cent, suggesting a moderate fitness of the model explanatory power.

Table 5: Fixed effect panel data regression Dependent Variable- GDP

Variable	Coefficient	t-Statistic	Prob.
C	-2.41	-0.242196	0.8141
GDP(-1)	-0.57	-1.713059	0.1209
INF	1.019	1.545766	0.1566
EXCH	-0.025	-1.077817	0.3092
TR	0.019	0.016444	0.9872
RIR	0.110	0.771511	0.4602
FD	0.058	0.596097	0.5658
CAB	0.361	1.307078	0.2236
R-squared	0.59		

Source: Authors Computation using Data Extracted from World Bank, World Development Indicator, 2016.

Wald Test

Here, the Wald bound test co-integration is used to examine if there exist a co-integration in the long run from the equation estimated in table 4.4. From the test, the coefficients under the Null Hypothesis $C(1)=C(2)=C(3)=C(4)=C(5)=C(6)=C(7)=C(8)=0$ were tested and the Chi-Square statistics was 18.73009 having a probability of 1.64%. This suggests a rejection of the null hypothesis of 'no long run co-integration'. It is concluded that there is co-integration; hence the variables are co-integrated in the long run.

Table 6: Impact of Governance on Economic Development Estimation using Fully Modified OLS (FMOLS) with Per capita Income as Dependent Variable

Variable	Coefficient	t-Statistic	Prob.
Control of Corruption	0.051021	0.343773	0.7326
Rule of Law	0.390597	3.138257	0.0030
Government Effectiveness	-0.328504	-3.722057	0.0005
Political Stability	-0.010480	-0.210854	0.8340
Investment	-0.073156	-1.596398	0.1174
R-squared	0.518001		
Adjusted R-squared	0.421602		

Source: Authors Computation using Data Extracted from World Bank, World Development Indicator, 2016

From table 4.5, it can be seen that rule of law and government effectiveness are statistically significant at 1% while control of corruption, political stability and investment are not even at 10% level. The table also shows that control of corruption and rule of law have positive effect on economic development. This reveals that corruption control and rule of law have enhanced economic development during the period. However, government effectiveness, political stability and investment have negative effects on economic development. This implies that government effectiveness, political stability and investment have not enhanced economic development. The results show that from the five indicators of good governance, control of corruption and rule of

law have fared well in promoting economic development while government effectiveness, political stability and investment attraction have not.

Conclusion

The import of governance in macroeconomic stability and ultimate development of West Africa Monetary Zone is the focus of this study. Five indicators of good governance were used; control of corruption, rule of law, government effectiveness, political stability and attraction of investment. The results show that both rule of law and government effectiveness were statistically significant and rule of law have positive effect on development. Efforts to curb corruption by various countries in the WAMZ also produced positive effects on development. However, the governments of WAMZ countries need to work more on effectiveness, political stability and providing enabling environment for investments to thrive. Investments boost employment in all economies and the effect is boosted based on perceived safety of investments and return on investments. It is imperative for WAMZ countries to ensure stable political environment which will positively impact on macroeconomic stability within the region as well as the convergence targets set up by the region. This study concludes that for countries in WAMZ to achieve the macroeconomic convergence and stability, there is need for quality representative democracy that will work through institutional reforms and delivery of set targets both within and across member states. The fight against the dark spectra called corruption must be won within a reasonable time frame through strengthening of existing intuitional arrangements that are saddled with the responsibility of promoting transparency in public domain. There is also need for peer review mechanism in both fiscal and monetary policy implementation among WAMZ countries. This will ensure voluntary compliance among member states through policy measures that are tailor-made and within the purview of country's economic characteristics.

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