

# The Effect of Economic Stabilization Policies on Economic Growth of Selected ECOWAS Countries

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## Abstract

**Purpose** - This study aims to evaluate the effect of economic stabilization policies on the economic growth of selected ECOWAS countries, particularly focusing on the influence of interest rates, nominal exchange rates, fiscal deficits, and debt stock.

**Design/methodology/approach** - The study employs a panel least squares estimation technique using cross-sectional data from six ECOWAS countries—Nigeria, Ghana, Guinea, Gambia, Sierra Leone, and Liberia—spanning the period from 1990 to 2023. Economic growth, proxied by gross domestic product (GDP), is analyzed against key monetary and fiscal policy variables to determine their impact. Statistical tools including panel unit root test, cointegration test, and the Hausman specification test were employed to ensure robustness.

**Originality** - Unlike previous studies that focus on either fiscal or monetary policies separately or do not consider English-speaking ECOWAS countries in detail, this research provides a holistic analysis of economic stabilization through a combined fiscal-monetary framework. It fills a notable gap by examining the synergies and shortcomings of stabilization policies in the sub-region.

**Findings and Discussion** - The study finds that interest rates, nominal exchange rates, and fiscal deficits have positive and statistically significant effects on economic growth in the selected countries, while debt stock has a negative and significant effect. However, individual country analyses reveal considerable variations: for example, exchange rate had the most significant impact in Nigeria and Guinea, while fiscal deficit drove growth in countries like Liberia and Sierra Leone. The debt burden in most countries counteracts growth gains, revealing risks of overreliance on borrowing.

**Conclusion** - Economic stabilization policies in the ECOWAS sub-region have contributed to economic growth; however, the effectiveness varies across countries and policy tools. While fiscal and monetary measures have shown appreciable influence, rising debt stock threatens long-term sustainability. The study recommends prioritizing internal revenue generation to manage deficits, strengthening policy coordination, and maintaining a balance between growth stimulation and fiscal discipline.

**Keywords** - Debt Stock, Economic Stabilization, Fiscal Deficit, Interest Rate, Nominal Exchange Rate

## Introduction

Stabilization policy refers to a set of strategies or actions introduced to help steady an economy or financial system during times of instability (Khan and Knight, 2020). While its primary aims are to reduce inflation, promote

sustainable growth, and improve the country's external payments position, it also influences other economic variables—some beneficial, some not. These secondary effects are critical to policymakers as the appropriate policy mix can support long-term growth. Economic stabilization encompasses the fiscal and monetary policies that serve as the backbone of a government's strategy to foster macroeconomic stability (Harberger, 2017). Fiscal policy, which involves taxation and government spending, affects the goods and services market, while monetary policy influences money supply and interest rates via central bank operations (Sanusi, 2003).

The Economic Community of West African States (ECOWAS), comprising 15 countries, was established in 1975 to promote regional economic integration. With over 300 million inhabitants and a combined GDP of \$633.1 billion as of 2023 (Okonkwo, 2024), ECOWAS has pursued a vision of a unified regional economy featuring a common currency (ECO). Through programs such as the 1987 Monetary Cooperation Programme (EMCP), and institutions like the West African Monetary Agency (WAMA), the region aims to strengthen financial systems and prepare for monetary union (Onye and Umoh, 2022). Key efforts have involved aligning member countries through the West African Economic and Monetary Union (WAEMU), the West African Monetary Zone (WAMZ), and Cabo Verde to create a single monetary system (Balogun, 2019; Ndekwu, 2023; Cham, 2020).

To ensure convergence, ECOWAS introduced fiscal and monetary benchmarks. These include a primary budget deficit of less than 3% of GDP, inflation below 10%, and foreign reserves covering at least three months of imports. However, by 2016, only Guinea, Liberia, and Nigeria met these criteria, while inflation in English-speaking countries remained elevated due to currency depreciation. The secondary convergence benchmarks involve limiting debt-to-GDP ratios below 70%, curbing central bank financing of deficits to under 10% of prior-year revenues, and maintaining exchange rate fluctuations within  $\pm 10\%$  (Soares-Cassama, 2023). Despite these measures, several countries—including Cape Verde, Gambia, and Ghana—have breached debt limits, and currency volatility continues, undermining stabilization goals (Cantore et al., 2023).

Recent trends suggest that public debt across ECOWAS has grown, pushing up debt servicing costs and restricting fiscal space. As of the end of 2023, five countries had surpassed the 70% debt-to-GDP threshold, while others neared it. Exchange rate policy remains a key concern, with most countries grappling with the challenge of balancing exchange rate regimes in the face of fiscal and monetary imbalances (Cantore et al., 2023). This study seeks to investigate how stabilization policies—particularly interest rate, exchange rate, deficit spending, and debt—have influenced economic performance across ECOWAS member states.

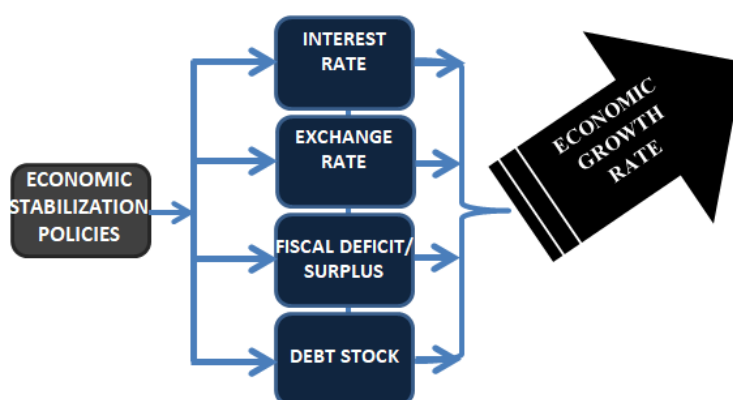
The problem arises from the apparent mismatch between stabilization policies and actual economic outcomes in ECOWAS countries. Despite efforts to meet convergence targets, economic growth in the region has been suboptimal. In 2023, Nigeria grew by just 0.4%, Ghana less than 1%, and the sub-regional average was 3.5%, down from 4.0% in 2022 (World Bank, 2023). While some research has explored aspects like debt and fiscal integration,

holistic analyses of stabilization policy effects—particularly in English-speaking countries—remain scarce (Abu et al., 2019; Eghosa & Ikponmwoosa, 2023; Onye & Umoh, 2022; Soares-Cassama, 2023).

Therefore, this study is justified by the need to provide a comprehensive and up-to-date analysis of economic stabilization strategies within ECOWAS, especially among English-speaking countries. By examining fiscal and monetary linkages using time series data and econometric methods, this research aims to fill existing gaps, offer policy-relevant insights, and support future planning. The findings will serve as a guide for policymakers to better align economic stabilization tools with growth objectives, and improve the effectiveness of regional economic integration efforts.

### Literature Review

The conceptual review focuses on a detailed explanation of the economic stabilization policies. It starts with a broad definition of economic stabilization policy before delving into the various stabilization policies in selected countries and instrument used for stabilization by the various governments. These concepts are captured in the conceptual framework shown in the flow diagram below:



**Figure. 1** System analysis of the flow chart  
(Source: Researcher’s Conceptualization)

The concepts to be discussed include stabilization policies, interest rate, fiscal deficit/surplus i.e. government revenue and expenditure pattern, exchange rate and debt stock. In addition, the indicator of economic growth – GDP growth rate is conceptualized as used in this research.

### Economic Stabilization and Stabilization Policies

Economic stabilization is defined as a strategic process involving a set of measures aimed at maintaining a stable financial system and consistent economic growth (Anochie & Duru, 2015). These measures, known as stabilization policies, encompass fiscal and monetary actions (Geoff, 2019). According to Ackermann and Grimsley (2024), stabilization efforts are typically triggered by economic stressors such as inflation, unemployment, or deflation, with the goal of ensuring steady development and minimizing

fluctuations in the economy. A stable economy is reflected through consistent GDP growth, a robust industrial sector, and satisfactory individual income levels (Egbulonu et al., 2018; Ackermann & Grimsley, 2024).

Stabilization policy refers to the government's strategic approach to maintaining economic stability. This may involve monetary injection, easing borrowing conditions, and protecting consumers and businesses during economic cycles (Hayes, 2021; Mbah et al., 2022). Without such interventions, the economy would be left to self-correct, which often leads to prolonged hardship such as job losses or business closures (Ogbonna et al., 2018). Thus, stabilization policies are essential, especially in times of economic distress, and are integrated into broader governmental frameworks.

The responsibility of maintaining economic stability lies with every functional government. Economic stability, defined as achieving price stability, full employment, and sustained growth, is crucial for national prosperity (Ojong & Hycent, 2023). Stable economies are characterized by modest GDP growth, controlled inflation, and minimal macroeconomic volatility (Ikhida & Alawode, 2024). When instability occurs, such as inflation surges or exchange rate shocks, investment is discouraged and standards of living are threatened (Geoff, 2019).

### **Instruments of Economic Stabilisation**

Governments and central banks play critical roles in promoting economic stability by using fiscal and monetary tools to influence key macroeconomic variables (Sanusi, 2003). These tools include interest rates, deficit financing, and exchange rate management—all of which are instrumental in maintaining balanced growth and price stability (Ackermann & Grimsley, 2024).

### **Interest Rate**

Interest rate, as defined by Teriba (2021), is the cost of borrowing expressed as a percentage of the principal. In this study, interest rate refers to the prime lending rate charged by commercial banks to their most creditworthy corporate clients. These entities represent the largest loan segments in countries like Nigeria, making this rate a suitable proxy. Interest is paid periodically based on terms agreed upon by lender and borrower, forming a central mechanism in credit markets.

### **Deficit Financing and Fiscal Spending**

Deficit financing occurs when government expenditures exceed revenues, necessitating borrowing to bridge the fiscal gap (Eze & Ogiji, 2019). Rooted in Keynesian economics, this approach is seen as a method to combat unemployment and stimulate economic growth. Modern definitions view it as a deliberate overspending strategy for development, often financed through domestic or external borrowing (Nosike & Ojor, 2024; Aronu et al., 2023). While it can elevate public debt, it also boosts short-term demand and employment (CBN, 2023).

### **Exchange Rate**

The exchange rate is the price of one currency in terms of another, serving as a key determinant in international trade and capital flows (Fontanel, 2019). It can appreciate or depreciate based on market forces. According to Ademola (2024), appreciation may cause current account imbalances, while depreciation affects import costs. As a critical macroeconomic indicator, governments often regulate exchange rate movements to maintain trade competitiveness and macroeconomic balance (Ngerebo-a & Ibe, 2023; Tallen, 2019; Benson et al., 2019).

### **Indicator of Economic Stabilisation**

Economic stability is achieved when GDP growth, inflation, and employment are maintained within acceptable bounds. GDP serves as a key indicator for measuring stability, capturing the market value of all final goods and services produced within a nation (Fontanel, 2019; Popoola et al., 2019; Zakiy & Cahyono, 2019). It reflects national productivity and economic activity, making it central to policy analysis (Anidiobu & Okolie, 2023; Akpan & Atan, 2021).

### **Economic Stabilization Policies of Selected ECOWAS Countries**

In the West African Monetary Zone (WAMZ), central banks target monetary aggregates and reserve money as operational tools to achieve price stability and long-term growth. Each country adapts monetary policy tools to its institutional and macroeconomic realities.

#### **The Gambia**

The Central Bank of The Gambia (CBG), under the CBG Act 2005, focuses on price stability while also supporting exchange rate stability and a strong financial system. Over time, it has transitioned from direct control to market-based instruments like Treasury bills, operating within a liberalized financial framework with market-determined interest rates.

#### **Ghana**

Ghana's monetary policy follows an inflation-targeting framework. The Bank of Ghana operates independently, adjusting interest rates to meet inflation targets jointly set with the Ministry of Finance. A Monetary Policy Committee, established in 2002, ensures adherence to this framework, aiming for an inflation range of 8%  $\pm$ 2% over a medium-term horizon.

#### **Liberia**

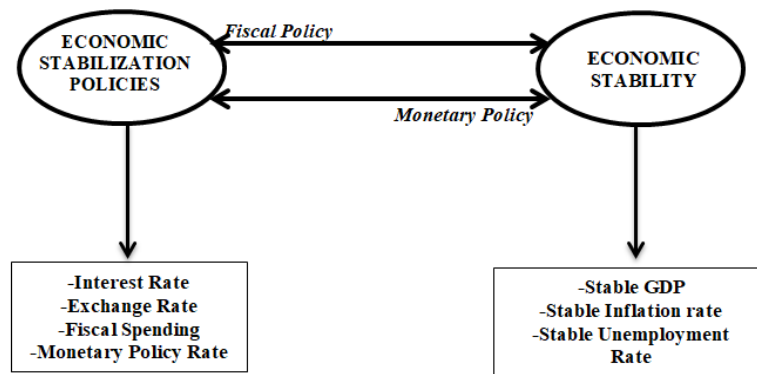
According to the CBL Act of 1999, the Central Bank of Liberia prioritizes price stability and safeguarding the currency's value. Given the dual-currency system (Liberian dollar and U.S. dollar), the Bank utilizes exchange rate targeting and foreign currency auctions to manage liquidity and inflation, while supporting access to credit for strategic sectors (Jibrin & Jelilov, 2021; IMF, 2018).

### Nigeria

As mandated by the CBN Act 2007, Nigeria’s central bank focuses on inflation control, exchange rate stability, and financial sector soundness. Monetary policy has evolved from direct credit controls to market-based instruments like open market operations, repurchase agreements, cash reserve ratios, and moral suasion, particularly after the adoption of the Structural Adjustment Programme in 1986 (Mgbomene, 2024; Mgbomene & Igben, 2023).

### Sierra Leone

The Bank of Sierra Leone initially relied on direct controls but shifted to indirect tools in the 1990s following financial reforms under the IMF’s Structural Adjustment Programme. Current policy focuses on monetary targeting and inflation control, while also supporting macroeconomic reforms and financial system development (Nkalu & Agu, 2024).



**Figure 2.** The Theoretical Framework Synergy  
(Source: Field work)

### Methods, Data, and Analysis

This study employs the Panel Least Square method of the type developed by Pedroni (2000), in order to accurately estimate the effect of economic stabilization policies on economic growth of ECOWAS countries, where the design is a cross-sectional study. A cross-sectional study is a type of research design in which data are collected from many different individual, groups or countries at a single point in time. In cross-sectional research, variables are observed without influencing both the dependent and independent variables in a dataset. The data for this study are generated from the following Sources; the Central Bank of the selected countries and World Bank collection of development indicators. The Hausman test is a statistical tool used to help researchers decide whether a fixed effects model or a random effects model is more suitable for analyzing panel data. In simple terms, it's a way of checking if the assumptions behind the random effects model hold true. If the test results show a significant difference—specifically, if the null hypothesis ( $H_0$ ) is rejected at the 5% significance level—then this suggests that the fixed effects model is a better fit for the data. On the other hand, if the null hypothesis is not rejected, the random effects model is

considered more appropriate.

### Model Specification

In a bid to examine the effect of economic stabilization policies on economic growth of ECOWAS countries, the study adopts a panel least square regression model specification. In order to capture the joint effect of the cross-sectional time series and their respective country specific effects, the model pools together both the cross sectional and time series elements in categories to be investigated. In specifying an appropriate model that captures the effect of economic stabilization policies on economic growth of ECOWAS countries, the study adopted a modified specification of Mesagan and Yusuf (2019). Mesagan and Yusuf (2019) modeled the effect of fiscal and monetary policy on economic performance and stabilization in Nigeria, Gambia, and Ghana. The model of Mesagan and Yusuf (2019) was specified as follows:

$$RGDP = f(DF, GX, M3, MPR) \quad [1]$$

$$EXR = f(DF, GX, M3, MPR) \quad [2]$$

Where: real Gross Domestic Product (GDP) is used as a stand-in or proxy for economic performance, reflecting how well the economy is doing in terms of output and growth while the exchange rate serves as a proxy for economic stabilization, giving insight into how stable or volatile the economic environment is, particularly in relation to international trade and currency values. To represent fiscal policy, the study uses two key indicators: deficit financing (DF)—which refers to government borrowing to fund spending—and government expenditure (GX), which captures the actual spending by the government. For monetary policy, the focus is on two main indicators as well: broad money supply (M3), which reflects the total amount of money circulating in the economy, and the monetary policy rate (MPR), which is the interest rate set by the central bank to guide economic activity and control inflation.

However, this present study is specific in that it adopts fiscal and monetary policy variables as policies of economic stabilization while using gross domestic product as the dependent variable. Furthermore, improving on the panel model of Mesagan and Yusuf (2019), the study introduces fiscal deficit/surplus i.e. difference between government revenue and expenditure as a fiscal policy variable and in addition to debt stock. Also, interest rate and nominal exchange rate are used as economic stabilization tools and the model is specified thus:

$$GDP = f(INTR, NEXR, FSD, DEBT) \quad [3]$$

Where:

GDP = Gross Domestic Product

INTR = Interest Rate

NEXR = Nominal Exchange Rate

FSD = Fiscal deficit/surplus (government revenue less expenditure)

DEBT = Debt Stock or Government Borrowing

However, being a cross-sectional dataset involving six (6) countries in the ECOWAS region, we transform the model into an econometric panel model as follows:

$$GDP_{it} = \alpha_0 + \beta_1 INTR_{it} + \beta_2 NEXR_{it} + \beta_3 FSD_{it} + \beta_4 DEBT_{it} + \gamma_5 D_{i=\omega} + \gamma_6 D_{i=\omega} + \mu_{it} \quad [4]$$

Where:

$\alpha_0$  = Intercept of the panel model

$\beta_1 - \beta_4$  = Unknown coefficients of the panel model to be estimated

However,  $\gamma_5 D_{i=\omega}$  and  $\gamma_6 D_{i=\omega}$  represent country-specific terms and unobserved time-variant heterogeneity (which implies factors that are specific to the individual countries but do not change over time).

The ' $\mu_{it}$ ' represents the white noise error term, which is based on the assumption that the error terms of the observations are not correlated. Thus, due to measurement error, omission of variables and human factor in specifying the model, the error term was included.

The expectation is that  $\beta_1 > 0, \beta_2 > 0, \beta_3 > 0$  and  $\beta_4 > 0$ . That is to say that the fiscal and monetary policy variables are expected to have positive effects on the economic growth of the countries in the ECOWAS sub-region.

## Result

The analyses of data commence with the presentation of the pre-estimation tests of stationarity, cointegration, cross-section dependence and the Hausman specification test. These are shown below:

**Table 1.** LLC Panel unit root test [p-value in parenthesis]

Variables	LLC test statistic		Order of Stationarity	Decision
	@Level	@First Difference		
GDP	0.36528 [0.6425]	-6.25105 [0.0000]*	I(1)	Stationary at 1 <sup>st</sup> difference
INTR	-0.87865 [0.1898]	-5.22043 [0.0000]*	I(1)	Stationary at 1 <sup>st</sup> difference
NEXR	-1.51015 [0.0660]	-6.09884 [0.0000]*	I(1)	Stationary at 1 <sup>st</sup> difference
FSD	-0.78341 [0.2167]	-5.92080 [0.0000]*	I(1)	Stationary at 1 <sup>st</sup> difference
DEBT	0.94558 [0.8278]	-4.95765 [0.0000]*	I(1)	Stationary at 1 <sup>st</sup> difference

Note: Probabilities are in block parentheses.

\* indicates significance at 5% level

The hypothesis for the panel unit root test above is given as:

$H_0$ : The data is not stationary (has unit root).

$H_1$ : The data is stationary (has no unit root).

The panel unit root test above shows that all the variables are I(1). Specifically, gross domestic product, interest rate, exchange rate, fiscal deficit and debt stock are all stationary after first differencing which meant that their order of stationary are represented as I(1). The stationarity test above shows that the statistical properties of the data do not vary over time. This means that the economic stabilization data can be used to forecast future economic growth in the selected West African countries. The stationarity of the cross-sectional data permits the study to estimate Random Effect (RE)

model based on the outcome of the Hausman specification test (Egbulonu, 2019).

However, if the estimated data exhibits cross-sectional dependency, there's a chance that the panel estimation and the prediction that results might be weak (Sadorsky, 2014). This necessitates the use of the Pesaran's (2004) CD test to check for cross-sectional dependency (CD). The following is the null and alternate hypothesis:

H<sub>0</sub>: There is cross-section independence

H<sub>1</sub>: There is cross-section dependence.

**Table 2.** Cross-Sectional Dependence Test

<b>Test</b>	<b>Pesaran CD Statistic</b>	<b>d.f.</b>	<b>p-value</b>
<b>GDP</b>	19.37756	5	0.0000
<b>INTR</b>	6.253451	5	0.0000
<b>NEXR</b>	20.67231	5	0.0000
<b>FSD</b>	14.46816	5	0.0000
<b>DEBT</b>	6.838161	5	0.0000

Source: (Author's computation)

There is significant evidence to reject the null hypothesis of cross-section independence for the panel data residuals. What this implies in this study is that the cross-sectional data on economic stabilization are dependent on each other meaning that the economic stabilization policies in one of the West African country will affect a neighboring country and so on. In other words, there is cross-section dependence (correlation) in the data (Sadorsky, 2014). This also justifies the choice of the countries from the ECOWAS sub-region.

The alternate hypothesis for the long-run cointegrating relationship makes the assumption that there is cointegration among the variables, whereas the null hypothesis posits that there is no long run relationship. Additionally, the alternate hypothesis for the Hausman specification implies that the fixed effect model is acceptable for estimating the relationship, but the null hypothesis for the model estimate is that the random effect model is appropriate. Table 3 below provides an overview of these two tests:

**Table 3.** Panel cointegration and Hausman test

<b>Test Summary</b>	<b>Chi-Sq. Statistic</b>	<b>Chi-Sq. D.f.</b>	<b>Prob.</b>
Cross-section random (Hausman)	241.138	4	0.0000
<b>Kao Residual Cointegration Test</b>			
Panel ADF-Stat.	-2.4599		0.0069

Source: (Author's computation)

The tests above in Table 3 show the cointegration and Hausman test results. The null hypotheses for the cross section Hausman test is rejected since the p-value 0.0000 is less than 0.05 critical value. The implication is that the model favors the random effect model. In other words, the estimated

effect of economic stabilization policies on growth of the economics of the selected countries can take random values based on the peculiarity of the economy of the country.

On the other hand, we find that there is a long-term relationship between economic stabilization and economic growth in the selected West African countries since the p-value of the panel ADF stat. test (0.0069) is less than 0.05 critical value. Thus, economic stabilization policies have long run implications on economic growth of countries in the ECOWAS sub-region.

**Table 4.** Estimation of the Panel Regression (Random Pooled Effect)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	17.39221	2.177384	7.987662	0.0000
INTR	0.312416	0.121484	2.571663	0.0109
NEXR	0.311219	0.058534	5.316863	0.0000
FSD	0.446143	0.035669	12.50798	0.0000
DEBT	-0.189633	0.095194	-1.992071	0.0478
<b>Effects Specification</b>				
Cross-section fixed (dummy variables)				
R-squared	0.928874		F-statistic	28.15047
Adjusted R-squared	0.925574		Prob(F-statistic)	0.000000
Durbin-Watson stat	1.722420			

Source: (Author's computation)

The random effect specification shows that interest rate exerts positive and significant effect on economic growth of the selected West African countries to the tune of 0.3124 units. This increase in gross domestic product (economic growth) occasioned by increased interest rate in the selected countries explains the real impact of interest rate as a tool for economic stabilization in the ECOWAS sub-region.

Nominal exchange rate exerted positive and significant effect on growth of the economies of the selected countries in the sub-region. This means that nominal exchange rate increase economic growth in the ECOWAS sub-region by 0.3112 units. This result implies that change in nominal exchange rate is a positive and significant tool for economic stabilization that has increased growth in the economy of the sub-region.

Fiscal deficit also showed positive and significant effect growing the GDP of the countries by 0.4461. The positive effect of fiscal deficit implies that countries in the ECOWAS sub-region have been engrossed in borrowing to augment budget and even though this has shown positive effect on the countries' gross domestic product, there may be a long term consequence since prolonged debt is not sustainable.

Furthermore, the model estimated negative effect of public debt on gross domestic product. The coefficient for public debt is -0.1896 and this means that for every unit change in public debt, the economy of the selected countries falls by 0.1896 units. This is a direct consequence of increased fiscal

deficit.

The positive coefficient of the intercept (17.392) is an indication that economic growth increases when economic stabilization variables used in the model are held constant at zero. This underlines the fact that there are other variables which may have been impacting on the economies of the selected countries but these variables are not captured in the model. They are therefore taken care of by the stochastic error term.

### Individual Analysis of Countries

This sub-section estimates the effect of the economic stabilization variables on economic growth of the selected countries. This individual country analysis is aimed at providing support to the general findings and also analyzing the individual country characteristics with a view to assisting in policy formulation at country level. The result further affirms the country differences and provides a ground for comparison of economic stabilization policies of the individual countries and how it has affected their local economy. The Table below summarizes the finding:

**Table 5. Summary of the Country-specific Analysis**

<b>Nigeria</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
C	29.88104	6.843907	4.366079*	0.0001
INTR	-0.847213	0.744027	-1.138686	0.2642
NEXR	0.734531	0.138881	5.288936*	0.0000
FSD	-0.013667	0.077998	-0.175226	0.8621
DEBT	-0.200620	0.252008	-0.796087	0.4325
<b>Sierra Leone</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
INTR	0.000672	0.011295	0.059496	0.9530
NEXR	-0.003505	0.005359	-0.654041	0.5182
FSD	1.002014	0.008172	122.6124*	0.0000
DEBT	-0.008136	0.008893	-0.914888	0.3678
C	3.149477	0.299540	10.51438*	0.0000
<b>Ghana</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
INTR	-0.595103	0.254731	-2.336204*	0.0266
NEXR	0.052338	0.068459	0.764517	0.4507
FSD	0.240232	0.101714	2.361826*	0.0251
DEBT	-0.695357	0.226097	-3.075484*	0.0046
C	4.295110	3.542385	1.212491	0.2351
<b>Guinea</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
INTR	-0.604756	0.151989	-3.978947*	0.0004
NEXR	0.670641	0.057302	11.70371	0.0000
FSD	0.022758	0.039429	0.577188	0.5683
DEBT	-0.339438	0.157626	-2.153440*	0.0397
C	10.78409	3.681302	2.929423*	0.0066

<b>Gambia</b>					
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>	
INTR	0.162309	0.451123	0.359789	0.1574	
NEXR	-0.375679	0.580645	-0.647003	0.2523	
FSD	1.568007	0.056712	27.64859*	0.0000	
DEBT	-0.275674	5.524490	-0.049900	0.1981	
C	3.352407	0.366787	9.139929*	0.0000	

<b>Liberia</b>					
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>	
INTR	-7.352356	1.694571	-4.338771*	0.0062	
NEXR	1.534495	2.137864	0.717770	0.4776	
FSD	1.321178	0.336793	3.922819*	0.0000	
DEBT	-2.489609	1.285439	-1.936777	0.0634	
C	2.645075	0.237843	11.121097*	0.0000	

Source: (Author's computation)

Individual country analysis from the result above shows that interest rate for Nigeria, Ghana, Guinea and Liberia has negative effect on the respective countries' economic growth (GDP). There is a projected 0.8472 units, 0.5951 units, 0.6048 units and 7.3524 units decrease in GDP as a result of changes in interest rate in the respective countries (Nigeria, Ghana, Guinea and Liberia). For Ghana, Guinea and Liberia, the negative effect of interest rate was significant while it is not significant for Nigeria. Interest rate positively influenced economic growth in Sierra Leone and the Gambia even though it was not significant.

Nominal exchange rate proved to be a significant contributor to economic growth of Nigeria and Guinea growing their GDP by 0.7345 and 0.6706 units respectively. For Ghana and Liberia, nominal exchange rate only increased the countries' GDP but not significantly. There was negative effect of nominal exchange rate on the economies of Sierra Leone and the Gambia.

Fiscal deficit positively and significantly influenced economic growth in Sierra Leone ( $\beta=1.002$ ), Ghana ( $\beta=0.2402$ ), Gambia ( $\beta=1.568$ ) and Liberia ( $\beta=1.3212$ ). The implication is that these countries have recorded fiscal deficit leading to increased borrowing to augment budget but this has proven to be a significant contributor to the respective countries' economic growth. Guinea recorded positive but not a significant effect of fiscal deficit on the country's economy. Nigeria's fiscal deficit showed negative effect on the country's economy.

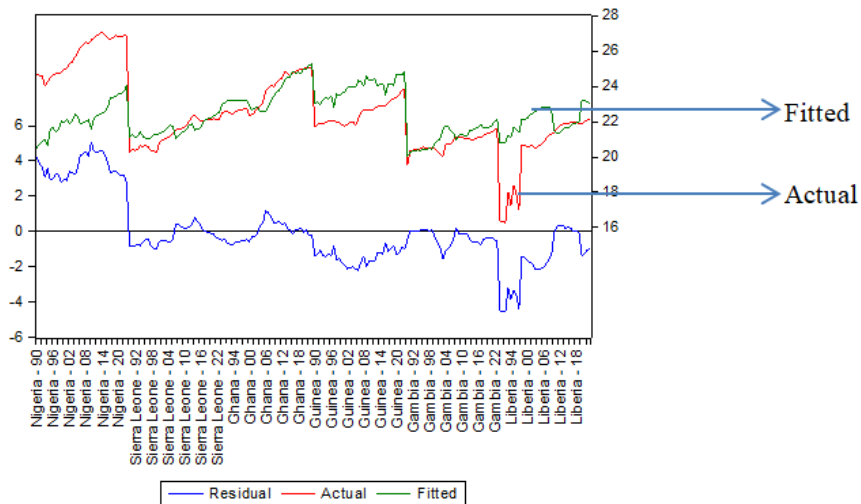
A further cursory examination of the result in Table 4.5 above reveals that for the countries with positive effect of fiscal deficit, their debt stock exerted negative effect on the countries' GDP except for Nigeria (Sierra Leone, Ghana, Guinea, the Gambia and Liberia). These countries (Sierra Leone, Ghana, Guinea, the Gambia and Liberia) have debt stock depleting their GDP by 0.0081, 0.6954, 0.3394, 0.2757 and 2.4896 units respectively. Nigeria's fiscal deficit decreased the country's economy likewise debt stock indicating a situation of adverse effect of the country's fiscal policy in ensuring economic stabilization.

In order to conclude the analysis from this sub-section, we can observe that the economic stabilization (stabilization policy) performance of the selected countries has not been very well deserving of being rated as satisfactory since the variables have varying effects on the countries' GDP. While only exchange rate contributed significantly to growth in Nigeria, fiscal deficit for Sierra Leone, Gambia and Liberia contributed significantly to their economies. However, use of interest rate as a potent stabilization tool for countries such as Liberia, Guinea, Ghana and Nigeria has not been effective. The debt profile of the selected countries is on the increase and as a result GDP growth is on a gradual decrease resulting from poor fiscal policy management and inconsistency of the monetary policy in the selected countries.

### **Post-Estimation Test Results**

**R-squared:** Economic stabilization variables jointly account for 92.89 per cent of the changes in economic growth in the West African countries. This is a high explanatory coefficient and it underlines the robustness of the model. **Durbin Watson:** The Durbin-Watson (DW) statistic is used to check for a problem with the autocorrelation—that is, whether the errors (or residuals) in a regression model are correlated with one another. In this case, the DW value is 1.722, which is fairly close to 2. Since a value of 2 indicates no autocorrelation, this suggests that the model does not suffer from autocorrelation issues, meaning the residuals behave independently, which is a good sign for the reliability of the results. This implies that the error observed in the data in the previous year did not correlate or affect the observations for the other years.

**Test for Model Suitability:** The green line in Fig. 3 below shows the model's performance, the blue line represents the predicted (or fitted) regression line, which shows what the model expects the outcome to be based on the data. The red line, on the other hand, shows the actual outcomes observed in reality. Comparing these two lines offers a visual way to assess how well the model aligns with economic theory—specifically, what is known as the economic a-priori expectations, or the theoretical relationships we expect to see based on established economic principles. The close fitness is an indication that the expected effect of economic stabilization on economic growth of the selected ECOWAS countries was close to reality i.e. actual outcome. However, deviations can be noticed in some years and this shows the deviation from individual countries. The deviation happened at the beginning, middle and end-point of the period.



**Figure 3.** Actual and Fitted Regression Line

**Test of Hypotheses**

**Table 6.** Summary of the hypotheses Test

Variable	t-statistic	p-value	Decision
Interest Rate (INTR)	2.57166	0.0109*	Positive and significant
Nominal Exchange Rate (NEXR)	5.31686	0.0000*	Positive and significant
Fiscal Deficit (FSD)	12.50798	0.0000*	Positive and significant
Debt Stock (DEBT)	-1.99207	0.0478*	Negative and not significant

Source: (Author’s computation)

Based on the hypotheses test above, the null hypothesis for the four hypotheses are rejected since their respective probability values (p-values) are less than 0.05 critical value. As such, the study concludes that:

- There is significant positive relationship between interest rate and growth of the economies of selected countries in the ECOWAS sub-region.
- There is no significant positive relationship between exchange rate and economic growth of selected countries in the ECOWAS sub-region.
- Fiscal deficit/surplus has positively and significantly affected the economies of selected countries in the ECOWAS sub-region.
- The debt stock of selected ECOWAS countries has not significantly affected economic growth of the sub-region.

**Discussion**

The findings from the analysis indicate that interest rates have a positive and statistically significant impact on economic growth in the group of selected ECOWAS countries, which includes Nigeria, Ghana, Guinea, Sierra Leone, The Gambia, and Liberia. In other words, increases in interest rates were associated with improvements in economic growth across these countries, and this relationship is strong enough to be considered meaningful

and not due to chance.). This means that interest rate has encouraged the deficit sector of the economy to borrow more funds which has helped to maintain stable flow of capital within the economies. This supports the findings of Oyido (2019) and Adekunla and Akungba (2019) who emphasized that interest rate behavior plays a crucial role in maintaining economic stability. Their studies highlight that the way interest rates are managed can significantly influence economic growth, underscoring the importance of interest rates as a tool for achieving macroeconomic stability. Also, Oforegbunam (2022), Mbah, Okoli, Uzonwanne, and Orjima (2022) and Sissokot and Sloboda (2023) found interest rate to be a very useful economic stabilization tool for ECOWAS countries. However, Waziri, Jelilov and Isik (2024) concluded that high real lending rate hinders economic growth ECOWAS countries. The positive effect of interest rate found in this study proves that for the period 1990 through 2023, countries in ECOWAS sub-region have been striving to improve their economies through stable interest rate.

The study also found positive effect of nominal exchange rate on growth with exchange rate increasing growth by 0.3112 units. Perhaps the strong exchange rate for some countries may have overshadowed that of other countries, there is strong evidence to prove that exchange rate has served as a potent economic stabilization tool for countries in the ECOWAS sub-region. Additionally, trading activities in the ECOWAS sub-region are carried out in major trading currencies including the US dollar. This has proven to stimulate economic growth by making exports to be more competitive in international markets. This serves as a boost for foreign exchange earnings for most of the ECOWAs countries thus lowering the cost of imported intermediate goods and encouraging investment. Eghosa and Ikonmwosa (2023), Umoru and Hussaini (2022) and Oladunjoye, Olagbaju and Akinbobola (2024) found exchange rate regimes to have positive and significant effect on economic integration in the ECOWAS countries.

Furthermore, fiscal deficit exerted positive and significant effect on economic growth of the ECOWAS countries increasing it by 0.4461 units. The positive effect of fiscal deficit implies that there is increased borrowing from ECOWAS countries and this has shown positive effect on the countries' gross domestic product. Studies like Soares-Cassama (2023), Dada, Posu, Okungbowa and Abalaba (2024) and Edo and Okodua (2024) found that the impact of deficit financing was complemented by return on investment, exchange rate, financial openness, and money supply. The major implication of previous findings was the high vulnerability of the markets in ECOWAS countries to switch in fiscal policy from deficit budgeting to surplus budgeting, which may lead to decline in market activities. Also, Saka et al. (2021) asserted that when fiscal borrowing are manage responsibly, it enables investments and stimulates economic growth through increased government spending on the real sector. This facilitates access to essential services and promotes economic stability during crises. Pabai (2021) added that the economic stimulus function of government borrowing serves as the main attraction to fiscal deficit since government can stimulate the economy through external funds.

According to Ojong and Hycent (2023), maintaining debt sustainability i.e. keeping debt to GDP ratio at a manageable level can help increase the amount money people have to spend and invest, which can boost a sluggish economy and spur economic growth. However, Isedu (2023) asserted that long term deficit can lead to a decline in economic growth and stability owing to excessive debt accumulation which serves as a discouragement to investment. This is put more clearly by Effiom and Ubi (2019) that fiscal deficit can promote growth only if a country does not exceed its debt-carrying capacity. For this present study, the result implies that countries in the ECOWAS region have not exceeded their debt carrying capacity and as a result, growth is recorded in the economies of the countries as a result of good fiscal management.

The decline in market activities was seen in the relationship between debt stock and economic growth. There is negative trend of GDP in the selected ECOWAS countries occasioned by increased debt stock. This situation has impeded growth of countries in the ECOWAS region. Abu, Karim and Aziz (2019) held that prolonged debt stock leads to increased debt service which depletes government funds for development and investment. Also, Onoh, Isiwu and Nwali (2024) found that deficit budget financing had a negative and significant influence on real gross domestic product (RGDP). Onoh et al (2024) went head to state that excessive debt burden can lead to reduced investment, decreased government spending on critical sectors and increase in debt servicing costs which hinders growth. Audu and Apere (2023) further noted that there is crowding out effect of debt stock on the economy of developing countries. The crowding out effect comes in such a way that private investment are eroded since the private investors are now more hesitant to provide loans to businesses as a result of low ability of the economy to repay its debts. Thus, the response to economic shocks is reduced as a result of debt stock being on the increase and this exerts negative effect on growth.

Individual country analysis revealed that the economic stabilization policy performance of the selected countries has not been very well deserving of being rated as satisfactory since the variables have varying effects on the countries' GDP. While only exchange rate contributed significantly to growth in Nigeria, fiscal deficit for Sierra Leone, Gambia and Liberia contributed significantly to their economies. However, use of interest rate as a potent stabilization tool for countries such as Liberia, Guinea, Ghana and Nigeria has not been effective. The debt profile of the selected countries is on the increase and as a result GDP growth is on a gradual decrease resulting from poor fiscal policy management and inconsistency of the monetary policy in the selected countries.

Further analysis of the model showed that there was close movement of the fitted and actual regression lines which implied that the expected effect of economic stabilization on economic growth of the selected ECOWAS countries was close to reality based on the given data. The economic stabilization variables jointly accounted for up to 92.56% of the changes in economic growth of the selected ECOWAS countries. This is an indication that the combination of fiscal and monetary policy variables as economic stabilization variables gave high probability of semblance to real-life scenario

and as such the model formulated in this study can serve as a policy document to track economic progress of selected ECOWAS countries.

## Conclusion

The conclusion emanating from the data analysis is that economic stabilization policies in the ECOWAS sub-region using the selected countries as focal point have been appreciable and has increased the economy of the sub-region. However, the increased GDP growth occasioned by the economic stabilization policy variables may be described as a false increase because the negative effect of debt stock proves that the countries are spending more than they are generating internally. There is increased debt stock which has depleted the countries' growth potential in the long run.

## Limitation

This present study has some obvious limitations such as the non-inclusion of French-speaking countries in the West African region. This may have limited the outcome of the findings and may have affected the general conclusions drawn. Also, the economic stabilization variables are non-exhaustive and as such further studies can explore wide array of variables that can effectively measure economic stabilization. Additionally, further studies can exhaust the countries in West Africa with a view to ascertaining how economic stabilization affects growth of the region. This study acknowledges that further studies can be conducted in the area of economic stabilization and its effect on specific countries in a comparative form. Carrying out country-specific studies in a comparative form makes room for direct policy deductions on their economic stabilization policies.

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