

Original Research Article

The Effect of External Debt on Economic Development in Selected West African Countries

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Abstract: This study investigates the impact of external debt on economic development in the selected West Africa Countries of Benin, Burkina Faso, Ghana, Gambia, Mali, Nigeria, Liberia, Côte d'Ivoire, Senegal, and Sierra Leone. The analysis employs ARDL econometric techniques and panel cointegration to investigate long-run and short-run relationships among the variables. GDP per capita was employed as a proxy for economic development, while external debt, external debt service, foreign direct investment, and interest rate served as the explanatory variables. Results suggest that a high external debt burden hinders economic development in these West Africa countries. External borrowing can contribute to economic development when efficiently managed and channeled into productive sectors such as infrastructure, human capital development, poverty alleviation and others. Foreign direct investment and sound financial policy are key drivers of long-run economic development in West Africa, while positive contribution of external debt depends on efficient utilization and management. Policymakers in these regions are therefore encouraged to strengthen their frameworks for debt monitoring, promote productive investment environments, and ensure that foreign borrowing is strategically directed toward sectors with high economic development prospect, West African countries should prioritize sustainable external borrowing, efficient debt management, and foster economic development.

Keywords: External Debt, Economic Development, Debt Accumulation, GDP Per Capita.

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INTRODUCTION

Borrowing is not an issue as long as the funds are utilized for worthwhile, productive, and progressive undertakings; but, borrowing may be an issue if the funds are used for unproductive endeavors and other obligations. Some West Africa Nations rely on external loans to bridge savings and investment and stabilize budgets. They need external financial supports, which when used productively accelerate the pace of economic development.

The scope of the study was informed by the fact that, these period witnessed a greater chunk of government's borrowing by these West Africa Countries in the last decades, the countries under review are Benin, Burkina Faso, Ghana, Gambia, Mali, Nigeria, Liberia, Côte d'Ivoire, Senegal, and Sierra Leone. Examining the time frame of thirty- three (33) years 1990 to 2023. The objective of this study is to investigate the effect of debt

accumulation on economic development on selected West African nations.

The study is anchored on debt overhang and debt crowding out theory, because these theories lowers investment and leads to slower capital formation, limits job creation, reduced income opportunities, especially in labor-intensive sectors, causes poverty rate to rise, particularly in economies with weak social safety nets. It also reduced government spending on public services. This brings about the big question "Is external debt driving improvements on GDP per capita?"

The relationship between external debt accumulation and GDP per capita, external debt service, interest rate and foreign direct investment, is complex because between 1990 and 2023.

2. SOME STYLIZED FACTS

For a developing country to grow rapidly, such country may need funding from other countries in the form of borrowing. When borrowed fund is channeled into new investment, it yields positive results.

Debt and Development

In period of economic development, the amassing of external debt has become a regular occurrence for emerging nations with low supply of local savings. (Abbas, 2024). United nations organizations, such as the World Bank (International Bank for Reconstruction and Development), IMF, and regional development banks, give low-interest loans to developing countries to support their capital goods imports and development projects.

Todaro and Smith, (2012), argued that when poor nations borrow funds for various development purposes, they are expected to benefit significantly, especially when the foreign loans are obtained at low interest rates, but most developing countries are now facing difficulties as a result of poor management and poorly conceived and executed economic policies.

The external debt of the Republic of Benin, in year 2000 was approximately \$3.52 billion. By 2020, it had risen to about \$5.25 billion, marking a 35.4% increase from 2019. The present value of external debt in 2022 was reported at approximately \$5.33 billion. (African Development Bank, 2023).

Burkina Faso's economy grew significantly over the past decades. The country's GDP increased approximately in six fold, from \$3.2 billion in 1990 to \$18.3 billion in 2023. This development was attributed to strong economic performance and a declining fertility rate, which helped reduce the income gap with peer nations. Côte d'Ivoire's external debt was over 60%. This is influenced by the country's substantial demand for capital goods to support industrial and infrastructure development, (Coface, 2024).

At the end of 2022, Gambia's total public debt-to-GDP ratio stood at approximately 71.8%, with

external debt accounting for about 52% of GDP. (African Development Bank Group, 2023). From 1990 to 2023, Ghana's external debt exhibited periods of both escalation and reduction, influenced by international debt relief initiatives, domestic borrowing strategies, and global economic conditions. The rising debt levels in recent years underscore the importance of prudent fiscal management and sustainable economic policies, (Ghana's MoFEP, 2022).

Liberia's economic development and external debt profile from 1990 to 2023 have been significantly influenced by periods of civil conflict, post-war reconstruction, and global economic conditions, marking one of the most rapid economic declines in modern history. But Mali implemented economic reforms in the early 1990s, including agreements with the World Bank and the International Monetary Fund. These reforms led to economic development and a reduction in financial imbalances. Mali's GDP continued to grow, reaching approximately \$51.0 billion in 2021; hence the African Development Bank reported sustainable economic development in 2023.

According to Oke and Suliaman, (2012), Nigeria's debt reached US\$31.0 billion in 2004 as a result of the government's return to concessional borrowing from bilateral and multilateral sources, particularly the World Bank, which hampered private investment and development. Currently Nigeria's total debt stock rose to approximately US\$97 billion in 2025, according to the Debt Management Office (DMO) 2025.

As of 2023, Senegal's Gross Domestic Product (GDP) per capita is approximately \$1,476.45 USD. (Trading Economics). This figure represents about 12% of the global average GDP per capita, with further expansion expected in subsequent years.

Sierra Leone's external debt has fluctuated significantly over the years. In 1992, it peaked at approximately 229.66% of Gross National Income. By 2022, this ratio had declined to 48.94%, bringing it to approximately \$2.33 billion indicating a substantial reduction in external debt in relation to national income.

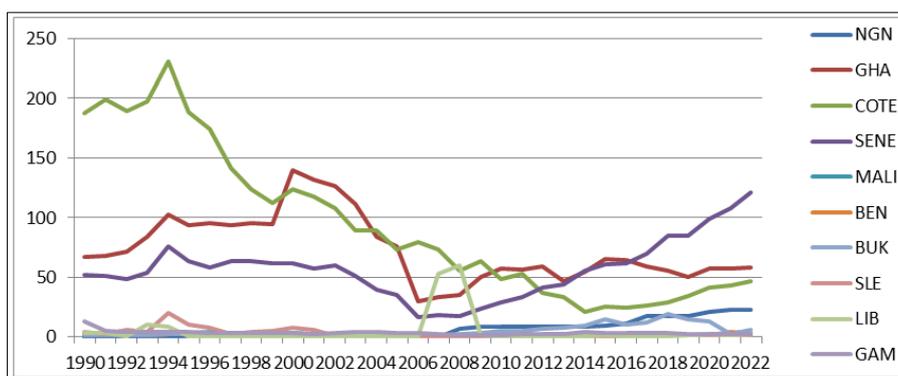


Table 1: External Debt of the Selected West Africa Countries (US\$ billion)

Source: World Development Indicators 2025

3. EMPIRICAL EVIDENCE

These literatures suggest that while external debt can facilitate economic development, excessive accumulation poses risks to development and stability.

In this vein, Azolibe (2021) investigated the factors influencing external debt for 39 HIPC's (heavily indebted poor countries) between 1996 and 2018. The study, which used the panel fully modified ordinary least squares method, found that while economic development reduces foreign debt, corruption, government spending, and population expansion raised it.

The works of Ashakah, *et al.*, (2025). Looks into how the ECOWAS sub region's economic expansion was affected by external debt and debt repayment. Results shows that the ECOWAS sub region's economic development could be hampered by a rise in external debt and debt payments.

Elhendawy (2022) carried out a study, using information from 1980 to 2019; the findings demonstrated a negative, long-term relationship between Egypt's external debt service and its national currency. This implies that Egypt's resources are negatively impacted by the repayment of its external debt.

After researching Nigeria's economy, Ayomitunde (2020) came to the conclusion that external debt hinders economic development. While, Ugwuanyi, Efanga, and Agbaeze (2021) examined the relationship between external debt management and Nigerian economic development using GDP per capita indicator, looking at the currency rate, foreign debt, balance of payments, and external debt service, the study used the OLS regression technique, and findings show that managing foreign debt effectively had a positive impact on Nigeria's economy.

Onyele and Nwadike (2021) used the Autoregressive Distributed Lag (ARDL) model to investigate how Nigeria's public debt load affected its economic development, the discovery was that exchange rate, debt load, revenue adequacy, and reserve adequacy all had a negative long-term impact on economic development.

The effects of external debt and external debt services on Pakistan's economic development were also examined by Awan and Qasim (2020), the study found that both had a negative impact on the country's economy because of the burden of foreign exchange repayment. According to Antoine, Stanislas, and Rollfe (2021), external debt had a favorable impact on Congo's economic expansion. While the majority of Pacific nations that were also involved in foreign debt are not in a better position as a result of their involvement; this is not limited to African nations, which make up the majority of developing nations.

Examining the flow of foreign aid in six Pacific Island nations between 1988 and 2004 reveals that these nations were among the top recipients of aid until the early 1980s, but were unable to sustain the higher levels of aid inflows because of changes in their political environments, which led them to fall into the twin deficit trap. Makun K (2021).

Dal and Ayokunle (2020) also demonstrated, using data from 1980 to 2016, that Nigeria's domestic debt has had a negative impact on development over the long and short terms. The report suggested that the government set a goal for debt acquisition and usage. Udeh, Ugwu, and Onwuka (2016) assessed how foreign debt affected Nigeria's economic expansion between 1980 and 2013. Although debt initially boosted development, this effect reversed with time, and the study confirmed that the government should use clear criteria to limit the rate at which debt is accruing.

In conclusion, the effects of external debt on economic development in West Africa, shows that for a developing nation to enjoy quick development, such country requires credit from other countries to strive. But the common issues to these nations are problems of borrowing to finance debt rather than investments on education, human capital development, or poverty reduction.

4 METHOD AND MODEL SPECIFICATION

4.1 Model Specification

The empirical model for the study is specifies as follows;
 $GDPPC = f(EXD, EXDS, FDI, INTR)$ ----- 1

The above function can be stated in ARDL form as follows;

$$\Delta GDPPC_t = \beta_0 + \beta_1 GDPPC_{t-1} + \beta_2 EXD_{t-1} + \beta_3 EXDS_{t-1} + \beta_4 FDI_{t-1} + \beta_5 INTR_{t-1} + \sum_{j=0}^p Y_1 GDPPC_{t-1} + \sum_{j=0}^p Y_2 \Delta EXD_{t-1} + \sum_{j=0}^p Y_3 \Delta EXDS_{t-1} + \sum_{j=0}^p Y_4 FDI_{t-1} + \sum_{j=0}^p Y_5 INTR_{t-1} + \Delta ECM_{t-1} + \epsilon_t$$
 ----- 2

Where GDPPC is gross domestic product per capita, EXD is external debt, EXDS is external debt service, FDI, is foreign direct investment, INTR is interest rate, $t-1$ stands for time lags, $\beta_0 - 4$ are the parameters to be estimated, ϵ is the error term.

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4.2 Method of Data Analysis

The Autoregressive distributed Lag (ARDL) model was estimated in this study. It was used to study both the short-run and long-run relationship between variables in the model.

5 RESULTS AND DISCUSSION

5.1 Descriptive Statistics

Table 2 shows the descriptive statistics of the variables for the study; external debt had a mean value of

24.7341, indicating that these West African Nations experienced high external debt over the period of the study.

Table 2: Descriptive Statistics

	GDP PC	EXT DBT	EDS	FDI	INT RATE
Mean	1.252267	24.73412	12.67573	4.551476	3.460230
Median	1.656992	3.104906	4.207459	1.643946	2.530267
Maximum	90.83227	230.7227	279.3122	167.3292	33.46679
Minimum	-44.55225	-4.879349	-10.48702	-202.8239	-59.99555
Std. Dev.	7.690303	40.78933	34.46836	19.70168	11.29918
Skewness	3.111439	2.239664	4.839527	-0.064754	-1.354261
Kurtosis	63.69908	8.444544	30.14711	57.69107	10.31427
Jarque-Bera	52743.96	704.1887	11767.54	42374.35	861.8246
Probability	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	425.7706	8409.599	4309.747	1547.502	1176.478
Sum Sq. Dev.	20048.72	564017.9	402755.1	131585.0	43280.65
Observations	340	340	340	340	340

Source: Authors Computation, 2025; Using Eview

Table 3: Unit Root Test Result

Variables	Level test result				First difference test result				Remark
	LLC	IPS	ADF	PP	LLC	IPS	ADF	PP	
GDPPC	-5.00636/ 0.0000	-5.516 90/0.0000	66.7248/0. 0000	150.112/0. 0000	—	—	—	—	1(0)
External debt	0.46730/0. 6799	-0.4671 3/0.3202	25.1630/0. 1205	58.8894/0. 0000	-6.20565 /0.0000	-9.4449 /0.0000	111.585/0. 0000	233.0038/0. .0000	1(1)
External debt service	-0.12272 /0.4512	-0.0082 7/0.4967	16.829 0/0.5349	27.9882/0. 0622	-6.49504 /0.0000	-9.48090 /0.0000	117.742/0. 0000	206.658/0. 0000	1(1)
Foreign direct investment	-1.94690 /0.0258	-2.745 19/0.0030	40.2940/0. 0019	68.2706/0. 0000	—	—	—	—	1(0)
Interest rate	-5.14051 /0.0000	-6.5324 8/0.0000	69.5862/0. 000	111.176/0. 0000	—	—	—	—	1(0)

Source: Authors Computation, 2025; Using Eview.

GDP per capita is stationary at level and integrated at order zero (0).

External debt is non-stationary at level but stationary at first difference and it's integrated at order (1). The panel unit root test result for external debt service at level indicates that series is non-stationary. But at first difference it indicates that the series is stationary because its probability is below 5% hence we reject the null hypothesis.

Foreign direct investment is stationary at level all probability values are less than 0.05 meaning all are statistically significant. FDI is integrated to order zero (0) implying that it is stable over time without differencing. Interest rate – the power unit root test results indicate that the series is stationary at level because its probability values are below the 5%

significance level. Reject null hypothesis & it's integrated of order zero (0) implying that it is stable over time and does not require differencing.

Table 4: Estimation Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
Long Run Equation				
EXT DBT	0.017351	0.009220	1.881882	0.0609
EDS	-0.024442	0.029423	-0.830705	0.4068
FDI	0.562729	0.089075	6.317448	0.0000
INT RATE	0.065019	0.022921	2.836670	0.0049
Short Run Equation				
COINTEQ01	-0.854729	0.110976	-7.701943	0.0000
D(EXT DBT)	-0.217160	0.102603	-2.116519	0.0352
D(EDS)	-0.025199	0.056040	-0.449663	0.6533
D(FDI)	-0.087206	0.185540	-0.470014	0.6387
D(INT RATE)	-0.038078	0.072680	-0.523914	0.6008
C	-0.713627	0.434349	-1.642981	0.1015
Root MSE	5.050095	Mean dependent var		0.215228
S.D. dependent var	9.282249	S.E. of regression		5.545165
Akaike info criterion	4.813103	Sum squared resid		8671.176
Schwarz criterion	5.466276	Log likelihood		-760.2275
Hannan-Quinn criter.	5.073365			

*Note: p-values and any subsequent tests do not account for model selection.

Source: Authors Computation, 2025; Using Eview.

From table 4, the short run analysis, external debt with a p-value of 0.0352, implies that any increase in external debt by one unit leads to 0.217 unit decrease in GDP per capita. Suggesting that external debt adversely affects economic development. External debt service with p-value of 0.6533 is statistically insignificant. Hence, changes in external debt service have no significant impact on GDP per capita. Although higher debt service could reduce economic development, Foreign direct investment with a p-value of 0.6387 means that changes in FDI do not have a significant effect on GDP Per capita, it requires time to yield productive outcome. Interest rate at a p-value of 0.6008 indicates that changes in interest rate do not have a significant effect on GDP per capita, but higher interest rate may discourage investment and reduce economic development.

But in the long run, external debt with p-value of 0.0609 means that an increase in external debt is associated with an increase in GDP per capita. Indicating that external borrowing can promote development if properly managed and used for productive investment. External debt Service with a p-value of 0.4068, though not significant, indicates that higher debt servicing reduces GDP per capita, heavy debt servicing could potentially crowd out funds available for domestic investment and development. Foreign direct investment with a p-value of 0.0000 has a strong, positive, and statistically significant effect on economic development, meaning that FDI contributes meaningfully to capital accumulation, technology transfer and productivity improvement in the economy. Interest rate with a p-value

of 0.0049 shows a positive sign that moderate increase in interest rate may encourage savings and attract investment capital, which boosts economic development. However, external debt shows a weak positive impact, indicating that borrowing can support development if managed wisely. While external debt service has a negative but insignificant effect, implying that repayments can burden the economy.

5.2 Findings

The findings reveal that external debt exerts a statistically significant effect on GDP per capita, indicating that variations in external borrowing play a vital role in shaping economic development. External borrowing, when effectively managed and channeled into productive sectors, can enhance economic development. However, external debt service, foreign direct investment, and interest rate were found to be statistically insignificant in explaining changes in GDP per capita.

6. CONCLUSION

The analysis was conducted using Autoregressive Distributed Lag (ARDL) model, which enabled the estimation of long-run effects across countries and it also utilized unit root tests, of which Levin- Lin- Chu (LLC), Im-Pesaran- Shin (IPS); Augmented Dickey - Fuller (ADF); and Phillips-Perron (PP) were used to confirm the stationarity properties of the variables and ensure the reliability of the long-run estimation results. It shows that external debt exerts a positive but marginally significant effect on GDP per capita across the ten West Africa countries. However, the

marginal significance suggests that the effectiveness of external debt depends on debt management capacity and the efficiency with which borrowed funds are utilized. Therefore, it is recommended that Governments in developing economies should ensure that external borrowing is directed toward productive sectors such as infrastructure, education, and industry that yield long-term returns capable of enhancing GDP per capita. Furthermore, strong debt management frameworks should be institutionalized to ensure that external debt accumulation remains within sustainable limits and does not lead to a debt overhang that impedes economic development.

Since excessive debt servicing can divert resources away from developmental investment, governments should negotiate favorable debt repayment terms and seek debt restructuring or relief programs where necessary. In addition, strategies should be developed to improve export performance and revenue generation, which will enhance the country's ability to meet debt obligations without compromising development.

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