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THE EFFECT OF EXTERNAL DEBT, UNEMPLOYMENT RATE, AND INFLATION ON ECONOMIC GROWTH IN GHANA

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ABSTRACT

Inflation and unemployment rates are part of the macroeconomic factors affecting growth within Ghana's economy over the years. The continued rise in the country's gross domestic product and a high dependency on external debt for development projects have sparked a lot of controversies. This study investigates whether external debt, inflation, and unemployment rate stimulate economic development, intending to determine the causal relationship between the variables to serve as an important factor for policymakers. The econometrics methods include the stationarity test, Johansen cointegration test, and regression (ordinary least squares). The data used was from the World Bank from 1991-2021. The stationarity test showed that external debt, GDP, and unemployment were non-stationarity and integrated at the first-order difference, whereas inflation was stationary at the level. The Johansen cointegration test found a long-run relationship between selected variables, but only external debt positively impacted economic growth in the long term. In contrast, inflation and unemployment had a negative impact. The regression results found external debt to be positively correlated to growth in Ghana, but inflation and unemployment harm it with GDP as the explained variable. The findings also indicate that external debt increased inflation, whereas GDP reduced inflation, but unemployment did not influence inflation. The outcome further proves that external debt positively impacted the unemployment rate, and GDP negatively influenced it.

Contribution/Originality: This study contributes to the existing literature on evaluating the effect of external debt, inflation, and unemployment rate contribution to economic development, including all the components of the economy. The paper presents the effects of external debt, inflation, and unemployment rate through regression analysis.

1. INTRODUCTION

Economic growth is often measured using Gross domestic product (GDP) per capita, GDP, and human development index, but factors such as external debt, unemployment rate, and inflation contribute to development. According to the World Bank, gross external debt, at any one time, is the outstanding sum of all actual current liabilities owed by residents of an economy to nonresidents that are due for principal and interest payment(s) at some future date(s) but are not contingent. External debt, unemployment, and inflation are inevitable in all economies as some fiscal policies and economic recession affects smooth growth. However, the argument over debt's effectiveness, terms, and conditions continues to be driven by the connection between foreign debt and economic growth in times of economic and health crises (Aboudi & Khanchaoui, 2021). These factors directly affect the

income level and standard of living in most developing countries in Africa, Asia, and some parts of southern America. When it comes to a country's development, having external debt is advantageous since it may be used for a variety of investment-focused initiatives, such as those involving infrastructure, power, or the agricultural sector (Shamim, Jawaid, & Madiha, 2017). Studies have shown that when used at a low level, external debt does have a good impact on the socioeconomic growth of any country, but when used more frequently, debt has a negative impact (Shamim et al., 2017).

The rate at which prices increase over a specific period is known as inflation. Inflation is sometimes measured broadly, such as the rise in prices overall or the cost of living in a nation, but it can also be measured more specifically for specific items, like food, or for services, like a haircut, for instance (Oner, 2017). Recent years have seen a lot of discussion among macroeconomists and policymakers over whether inflation is bad for economic growth. According to estimates from several research, inflation and economic growth are negatively correlated. The main point of debate is whether inflation is beneficial to economic growth or destructive to growth, specifically (Kasidi & Mwakanemela, 2013). Both global economic expansion and inflation rates have been erratic. Like how inflation rates have dominated growth rates for almost many years (Madhukar & Nagarjuna, 2011) economic growth has persisted as one of the most significant macroeconomic issues (Kasidi & Mwakanemela, 2013).

However, according to the Organization for Economic Co-operation and development (OECD), people of working age who are unemployed, available for work, and have made explicit efforts to find employment refers to unemployment. Estimates of unemployment rates based on this definition are applied consistently, making them more comparable worldwide than estimates based on national definitions of unemployment. This indicator is seasonally adjusted and measures the number of jobless persons as a percentage of the labor force. Over the past years, Ghana's external debt has been increasing faster, and the inflation rate is moving back to double this year. The country's Gross domestic product increased to United Sates dollar (US$) 77.59 billion in 2021, and the unemployment rate increased as the population expanded. Figure 1 indicates the GDP, external debt, inflation, and unemployment rate trend in Ghana.

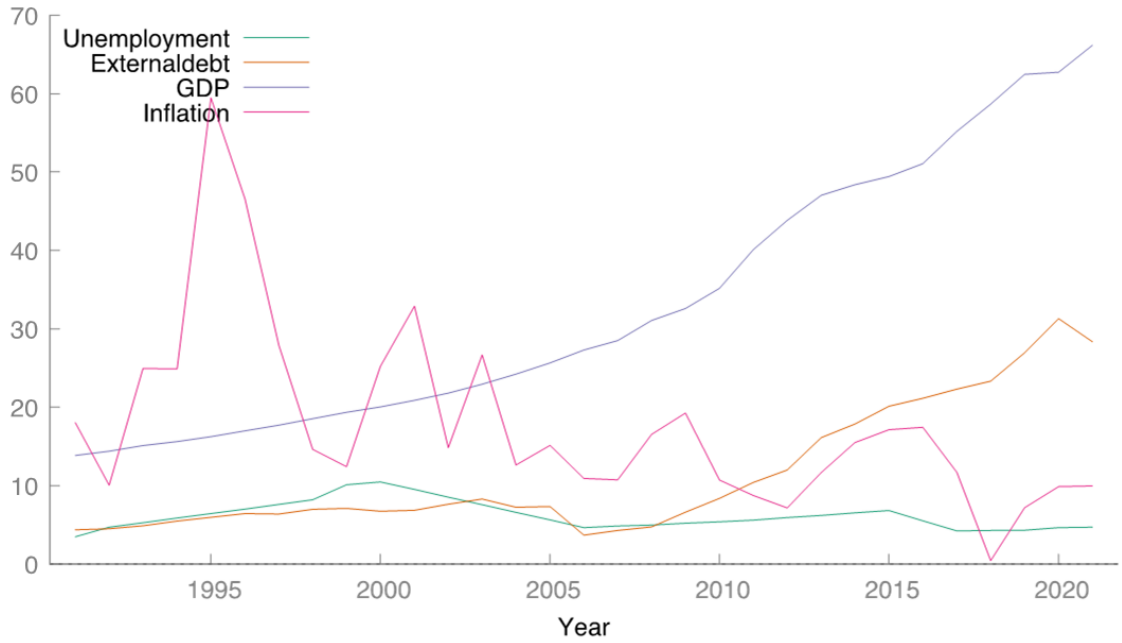

Figure 1. Trend of GDP, external debt, inflation, and unemployment rate in Ghana.

As the inflation rate, external debt, and unemployment rate continue to increase, there is a need to assess how these variables affect economic growth. Hence, this paper investigates these indicators' significance in the Ghanaian economy's long-run economic development. The study covers a brief literature review of the empirical findings on

the unemployment rate, external debt, inflation impact on economic growth, and evolution of Inflation in Ghana. Section three covers materials and methods, section four includes results and discussions, and section five is the conclusion. However, this study contributes to the existing literature on the impact of external debt, Inflation, and unemployment rate on economic growth.

2. LITERATURE REVIEW

Over the past years, many studies have been conducted on the impact of external debt, inflation, and unemployment rate on economic growth with different methods and obtained different outcomes. The review covers some empirical works in line with the present study.

2.1. Unemployment and Economic Development

Studying the determinants of unemployment in Ghana (Baah-Boateng, 2013) a probit regression model shows a substantial relationship between demand factors and unemployment, demonstrating a limited relationship between economic growth and employment creation. Additionally, their empirical evidence reveals that youth and urban dwellers are more susceptible to unemployment, with education and gender occasionally serving as explanatory factors. It is noted that reservation wages increase unemployment.

Sulemana, Anarfo, and Doabil (2019) used probit and instrumental variable probit regressions to empirically evaluate the relationship between unemployment and self-rated health in Ghana using data from the Wave 6 of the World Values Survey (n=1552). The findings support the notion that unemployment is inversely connected with self-rated health among Ghanaians. Ansah, Coffie, Azinga, and Nimo (2021) examined the connection between unemployment and Ghana's single spine pay policy. Data from 413 business owners and managers, including manufacturing firms, service industries, wholesalers, and small and medium-sized enterprises, were gathered using an exploratory sequential mixed design method. Single spines pay policy was found to have a considerable impact on unemployment.

Adarkwa, Donkor, and Kyei (2017) the study discovered that only the service sector had a substantial negative impact on the unemployment rate in Ghana, utilizing annual time series data on the country from 1991 to 2014. It also tested the robustness of its findings. Amissah and Nyarko (2017) studied how youth unemployment in Ghana affected young people's mental health. The study population was young people in Ghana's Greater Accra Region between 18 and 35. The data were analyzed using Pearson r, linear regression, and multivariate analysis of variance (MANOVA). The results indicated that young people without jobs had worse psychological health than those with jobs.

Misini and Myrvete (2017) the relationship between nominal GDP and unemployment was examined using a straightforward linear regression and the relationship between nominal GDP and unemployment. These two factors have relevant empirical results that are detrimental. Kreishan (2011) used Okun's law to examines the connection between Jordan's unemployment rate and economic expansion. Time series techniques are used to evaluate the relationship between unemployment and economic growth and to estimate Okun's coefficient using annual data from 1970 to 2008. The empirical findings show that Jordan does not allow for the confirmation of Okun's law.

Ademola and Badiru (2016) examine and establish the impact of inflation and unemployment on Nigeria's economic performance. The study only covers 1981 to 2014 and solely uses OLS and Diagnostic to conduct the analysis. According to the findings, economic growth positively correlates with unemployment and inflation. Chand, Tiwari, and Phuyal (2017) aims to determine how India's economic growth affects the country's unemployment rate. The gross domestic product has been used as an economic growth metric for the study. It has been discovered that the unemployment rate and economic growth have a strong inverse relationship. Additionally, it was discovered that GDP is responsible for 48% of the change in the unemployment rate.

2.2. Impact of External Debt on Economic Growth

Lucy, Collins, and Ernest (2016) using the simple Ordinary Least Squares method, with the data from 1990 to 2015 to examine the effect of government debt on Ghana's economic growth. The study showed a negative correlation between Ghanaian economic growth and domestic and foreign debt. Conversely, Senadza, Fiagbe, and Quartey (2017) investigates how Sub-Saharan Africa's economic growth is impacted by external debt. The System Generalized Methods of Moments (GMM) estimate technique is used in the paper, which uses annual data for 39 Sub-Saharan Africa(SSA) nations from 1990 to 2013. The results demonstrate that SSA's economic growth is adversely impacted by external debt. Although there is no non-linear link between external debt and economic development, the categorization of nations based on per capita income has no impact on the relationship between external debt and growth.

Victor and Erickson (2016) used the Johansen cointegration and the vector error correction model to examines the long-term and causal relationship between Ghana's public debt and economic growth with annual time series data from 1970-2012 from the World Bank's Development Indicators and the IMF's Economic Outlook statistics. According to the study's conclusions, there is a long-term, statistically significant association between public debt and economic growth. Asafo and Matuka (2019) employed an annual time series for the years 1970–2017, a cointegration analysis, and an error correction methodology were used to investigate external debt's effect on Ghana's economic development. They discovered that Ghana's foreign debt inflows boost long- and short-term growth. They also confirmed that foreign debt has long- and short-term crowding-out and non-linear effects. However, the short-term confirmation of debt overhang was limited.

Kasidi and Said (2013) studied the impact of external debt on Tanzania's economic development with data from 1990 to 2010 and found that external debt and debt service considerably impacted GDP growth. However, Omodero and Alpheaus (2019) investigated the impact of foreign debt on economic growth in Nigeria with data from 1997 to 2017, using the ordinary least squares regression method. The results show that foreign debt servicing has a strong and considerable positive impact on economic growth, whereas foreign debt has a significant negative impact.

2.3. Inflation and Economic Relation

Alhassan, Sare, and Ibrahim (2019) stray from this straightforward method in this study to look at the threshold impacts of inflation. The amount of the broad money supply is found to be a mediating factor in the inflation-growth nexus. While inflation hinders economic growth generally, their research indicates that it becomes substantially more severe when the broad money supply exceeds 21.57% of GDP. However, Joseph and Eric (2010) used threshold regression models created to estimate inflation thresholds rather than impose them, this study calculated the threshold effect of inflation in Ghana for the period 1960–2008. They discovered proof of an inflationary threshold effect on Ghana's economic expansion.

Furthermore, Akosah (2013) uses annual time series from 1964 to 2012 to analyze the dynamic relationship between inflation and financial development in Ghana. The article specifically examined whether the causality between the two varies in the short- and long-term. The article found a bidirectional negative link between the two in the short run, while long-run econometric analysis revealed a unidirectional negative impact of inflation on financial development.

Conversely, Shitundu and Luvanda (2000) employed the Least Trimmed Squares (LTS) approach to investigate how Tanzania's inflation affects economic growth. According to the empirical findings, Tanzania's economic growth has been harmed by inflation. Consequently, Bawa and Abdullahi (2012) used quarterly time series data for 1981 through 2009 to calculate an inflation threshold for Nigeria. According to the analysis, Nigeria should have inflation no higher than 13%. Inflation has a minimal impact on the economic activity below the threshold level, but when it rises above it, it has a significant negative impact on growth.

Additionally, Iyke and Odhiambo (2017) the importance of inflationary threshold effects in the relationship between finance and growth for Ghana and Nigeria is examined in this study. They discovered inflationary thresholds in both nations throughout the study periods using regressions with suitably selected thresholds. The precise range of Ghana's inflationary threshold is 10.73 to 29.83 percent. The inflationary threshold range for Nigeria is between 10.07 and 19.25 percent. They discovered that, for both countries, financial development has a favorable and large impact on economic growth during low and moderate inflationary regimes but has a negligible impact during high inflationary regimes.

2.4. Ghana's Evolution of Inflation

Ghana has had consistently high inflation rates (Kwakye, 2010). In the 2000s inflation rate in the Ghanaian economy was lower compared to the 90s. In 1965 inflation rate stood at 26.44, according to the data from the World Bank. Inflation rates have consistently doubled and average 32 percent annually, which is extremely high. Conversely, the 1970s and early 1980s saw spells of extremely high inflation and previously unheard-of macroeconomic instability (Ocran, 2007). It claims that inflation has been the economic reform program's albatross, for which no solution has worked and for which, ten years later, a cure has not yet been discovered (Sowa, 1994). However, the inflation rate in 1977 was 116.45% and 116.50% in 1981, respectively. Consequently, the highest inflation rate in the history of Ghana was 122.87% in 1983. Figure 2 shows the trend of inflation in Ghana.

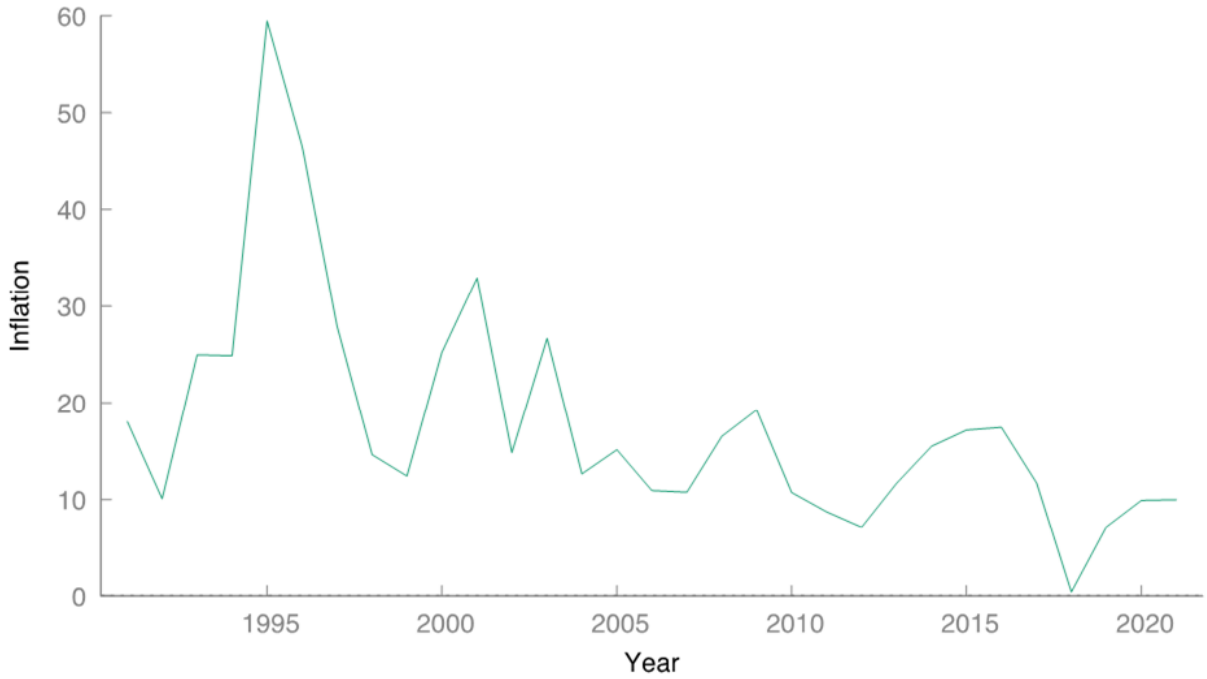

Figure 2. Historic trend of inflation in Ghana.

3. METHODOLOGY

Studying the effect of unemployment, inflation and external debt on economic growth requires an in-depth analysis. The study used data from the World Bank from the period 1991 -2021. The reason for testing this hypothesis with these selected variables is the government's high dependency on external debt with fewer jobs available for the people. The ordinary least squares method was employed to assess the casual relationship between the variables on economic growth and the well-being of the people. Before establishing the relationship, a summary statistic, correlation matrix, stationarity test (ADF), cointegration test (Johansen test) were performed, and multiple regression.

3.1. Models Specification

Investigating the significance of unemployment, inflation and external debt on economic growth raises the question of whether there is a long-run relationship between these variables towards growth. If there is any relationship, how do they impact economic advancement? A general econometric equation was developed to estimate the effects of the variables. Firstly, assessing the impact of unemployment, inflation, and external debt on real GDP with 2015 as the base year is indicated in Equation 1.

$$lnGDP_t = \beta_0 + \beta_1 Unem_t + \beta_2 Infla_t + \beta_3 lnexdt_t + \varepsilon_t \quad (1)$$

$lnGDP_t$ represents gross domestic product, $Unem_t$ indicates unemployment rate, $Infla_t$ represents a change in prices of goods and services over time, whereas $lnexdt_t$ stands for loans and credit facilities obtained from other countries and financial institutions by the government of Ghana. $lnGDP_t$ and $lnexdt_t$ are logs of the GDP and external debt, respectively. To further broaden the scope of the analysis, inflation became the dependent variable, with unemployment, external debt, and GDP as the regressors. The current high level of inflation in Ghana's economy helps to understand how these selected variables impact it, as shown in Equation 2.

$$infla_t = \beta_0 + \beta_1 unem_t + \beta_2 Exdt_t + \beta_3 GDP_t + \varepsilon_t \quad (2)$$

Furthermore, unemployment was used as the explained variable to assess its significance in economic development. The rapid increment in the unemployment rate in Ghana is perceived to retards the country's advancement; hence, there was the need to test the impacts of GDP, external debt, and inflation on unemployment, as displayed in Equation 3.

$$Unem_t = \beta_0 + \beta_1 lnExdt_t + \beta_2 infla_t + \beta_3 GDP_t + \varepsilon_t \quad (3)$$

The time series variables GDP and external debt are measured in $US billion, whereas unemployment rate and inflation are in percentages. $\beta_1, \beta_2, \beta_3$ are the regression coefficients and ε_t represent the error term. The β_0 stands for the constant term obtained from the model. The analyses were performed with Gretl software.

4. RESULTS AND DISCUSSION

A summary statistic which shows the mean, median, and standard deviation using all the observations is indicated in Table 1. The statistics show that inflation had the highest mean, median and standard deviation, followed by the unemployment rate, GDP, and external debt.

Table 1. Summary statistics.

Variable	Mean	Median	S.D.	Min	Max
Log of GDP	3.37	3.31	0.507	2.63	4.19
Unemployment	6.15	5.62	1.77	3.49	10.5
Inflation	17.8	14.8	11.9	0.410	59.5
Log of External debt	2.22	1.98	0.642	1.31	3.44

Note: S.D. (Standard deviation), Min(Minimum), Max(Maximum).

However, the correlation coefficients of all the observations with a 5% critical value (two-tailed) are equal to 0.3550. The correlation matrix shows a positive relationship between external debt and GDP. In contrast, there is a negative relationship between unemployment, inflation, and GDP towards economic growth in Ghana, as displayed in Table 2.

Table 2. Correlation matrix.

Log of GDP	Unemployment	Inflation	Log of external debt	Statistics
1.0000	-0.389	-0.565	0.874	Log of GDP
	1.000	0.367	-0.205	Unemployment
		1.000	-0.378	Inflation
			1.000	Log of external debt

The properties of the variables were assessed using the Augmented Dickey-Fuller (ADF) test. The ADF testing method proves whether a time series has a unit root or equal value and that the variable follows a random walk (Dickey & Fuller, 1979). The common ADF assumes uncorrelated error terms. Assessing the time series properties helps to understand whether the series is stationarity or non-stationarity. Table 3 indicates the ADF test results in detail.

Table 3. ADF unit root test at level and first difference.

Indicators	Sample size	ADF T-stat	p-value	(α-1)	ADF T-stat	p-value	(α-1)	Order of Integration
Log of GDP	1993-2021	-2.150	0.517	-0.16877	-3.558	0.007	-0.632	I (1)
Unemployment	1993-2021	-2.259	0.186	-0.137	-2.856	0.004	-0.403	I (1)
Inflation	1993-2021	-5.173	8.194e-05	-1.224	-	-	-	I (0)
Log of external debt	1993-2021	-2.127	0.530	-0.220	-4.540	0.001	-0.881	I (1)

Note: ADF T-stat (Augmented Dicky-Fuller test statistics), P-value (Probability), α-1(Alpha).

Table 3 shows that the variables GDP, unemployment, and external debt were non-stationarity because their p-values were greater than 5%, whereas inflation was stationarity at the level. Under the ADF test, a unit root exists when the asymptotic p-value is higher than the critical value (5%) and any p-value less than the critical value indicates no unit root. However, the first difference in the GDP, unemployment and external debt became stationarity, indicating that they are integrated at first order I (1).

Conversely, the cointegration test was conducted based on Johansen (Søren, 1988). The Johansen test was carried out since the variables were integrated at a first-order difference I (1). The cointegration test assesses the long-run relationship between the variables toward economic growth. The detail of the Johansen test using an unrestricted constant is indicated in Table 4.

Table 4. Johansen cointegration test.

Rank	Eigenvalue	Trace Test	P-Value	Lmax Test	P-Value
0	0.612	55.034	0.008	26.478	0.067
1	0.429	28.556	0.069	15.694	0.253
2	0.337	12.862	0.120	11.519	0.131
3	0.047	1.3434	0.246	1.3434	0.246

Note: Lmax(loglikelihood maximum), P-value (Probability).

The outcome of the cointegration in Table 4 showed that at rank zero (0), the trace test produced a p-value less than 5%, which means the hypothesis that there is no cointegration equation between the selected variable is rejected. According to the Johansen test, the p-value of both the loglikelihood maximum test and trace tests must be greater than 5% (critical value) to confirm a long-term interdependency. However, the rank one (1) hypothesis states that, at most, one cointegration equation. Based on the p-value generated the hypothesis is not rejected. It means that, at most, one cointegration equation is at the rank (1).

Consequently, rank (2) also proves that there are two cointegration equations. The rank (3) showed that both the trace and loglikelihood maximum produced the same p-values. This confirmed that there is cointegration among the variables in the long run towards economic advancement. The cointegration equation using GDP as the dependent variable can be written as follows:

$$GDP = -0.024372(\text{unemployment}) - 0.038549(\text{inflation}) + 0.33332(\text{external debt}) - 66$$

The cointegration equation indicates that unemployment and inflation harm growth in the long run. It means that percentage change in unemployment and inflation rates decreases the gross domestic product in Ghana. On the contrary, external debt has a positive relationship with GDP, which shows that an expansion in external debt will increase the country's output.

4.1. Multicollinearity Test

Collinearity tests for Models 1, 2 and 3 are indicated in Tables 5, 6, and 7. The collinearity test was performed using the Belsley-Kuh-Welsch test to assess the variance inflation factor between the variables. The minimum variance inflation factor is 1, and the maximum is 10. A value greater than 10 is considered problematic. The multicollinearity assumption states that the variables are not a perfect combination.

Table 5. Collinearity test of model 1.

Variables	Variance Inflation Factor
Unemployment	1.163
Inflation	1.300
Log of external debt	1.174

Table 6. Collinearity test of model 2.

Variables	Variance Inflation Factor
Unemployment	1.318
External debt	8.339
Gross domestic product	9.205

Table 7. Collinearity test of model 3.

Variables	Variance Inflation Factor
Log of External debt	7.456
Inflation	1.617
Gross domestic product	9.013

The outcomes of the collinearity test in all the models produced variance inflation factors of less than 10 showing no evidence of excessive combinations among the variables.

4.2. Regression Results

The coefficients of Model 1 with GDP as the dependent variable is shown in Table 8. Based on the coefficients indicates that external debt has a positive impact on economic growth, whereas unemployment and inflation rates negatively influence it.

Table 8. Model estimation.

Indicators	Coefficient	Std. Error	T-Ratio	P-Value
Constant	2.478	0.223	11.11	1.41e-11***
Unemployment	−0.043	0.023	−1.878	0.0712*
Inflation	−0.009	0.004	−2.589	0.0153**
Log of External debt	0.599	0.064	9.333	6.11e-10***

Note: significance code: *** 1%, ** 5%, * 10%., Std.(Standard Error), T-Ratio (Test-Ratio), P-value (Probability).

Model 1. Regression statistics

Variant	Value
R-squared	0.85
Adjusted R-squared	0.83
F-statistic (3, 27) = 50.12	P-value (F) = 3.62e-11
Number of observations	31

The coefficient of the log of external debt means if external debt increases by 1% will lead to an expansion in economic growth by 0.59% in the long run. However, if the unemployment rate rises by 1%, the country's advancement will decline by 0.043%, whereas a percentage change in inflation retards the economy by 0.009%. Consequently, the signs of the coefficients in model 1 confirmed the equation obtained in the Johansen cointegration test.

The Model 2 estimation with inflation as the explained variable is shown in Table 9. The outcome indicated that the unemployment rate has no impact on inflation in the long term since its coefficient is not statistically significant at a 5% level.

Table 9. Model 2 estimation.

Indicators	Coefficient	Std. Error	T-Ratio	P-Value
constant	29.926	10.546	2.838	0.0085***
Unemployment	0.582	1.166	0.499	0.6218
External debt	1.110	0.635	1.748	0.0918*
GDP	−0.861	0.325	−2.647	0.0134**

Note: significance code: *** 1%, ** 5%, * 10%. Std.(Standard Error), T-Ratio (Test-Ratio), P-value (Probability).

Model 2. Regression statistics.

Variant	Value
R-squared	0.38
Adjusted R-squared	0.31
F-statistic (3, 27) = 5.58	P-value (F) = 0.004115
Number of observations	31

Table 9 shows that external debt increases the inflation rate in the long run. The coefficient of GDP proves that an expansion in the country's output reduces inflation. It also means that if demand exceeds supply, the prices of goods and services in the domestic market will increase. On the contrary, if there are many suppliers in the market, prices become lower as the market clears itself at equilibrium.

Furthermore, the estimated coefficients of the variables of Model 3 with the unemployment rate as the explained factor are indicated in Table 10. External debt has a positive relationship with the unemployment rate in Ghana. Credit facilities and a bailout from the International Monetary Fund (IMF) come with many restrictions on the employment rate in the economy, which in the short and long-run increases the unemployment rate.

Table 10. Model 3: Estimation.

Indicators	Coefficient	Std. Error	t-ratio	p-value
Constant	4.038	1.285	3.142	0.0040***
Log of External debt	3.535	1.089	3.247	0.0031***
Inflation	−0.004	0.027	−0.139	0.8905
GDP	−0.172	0.046	−3.746	0.0009***

Note: significance code: *** 1%., Std.(Standard Error), T-Ratio (Test-Ratio), P-value (Probability).

Model 3. Regression statistics.

Variant	Value
R-squared	0.43
Adjusted R-squared	0.37
F-statistic (3, 27) = 5.58	P-value(F)= 0.001345
Number of observations	31

The log of external debt indicates that a percentage change in external debt would lead to a change in the unemployment rate by 3.53%. It means that as unemployment rate increase negatively affects the country's gross domestic product. The coefficient of GDP shows an inverse relationship with the unemployment rate in the long

run which means a change in GDP will lead to a reduction in the unemployment rate by 0.17%. The R-squared shows the regressors (external debt, inflation, and GDP) explained 43% of the variation in the unemployment rate.

5. CONCLUSION

The impact of unemployment is crucial to economic growth as economies with higher unemployment rates face a decline in gross domestic product. However, Ghana's high dependency on domestic and external loans has created concern about its long-term development. As inflation continues to increase, it is a significant factor in determining long-term economic growth. This study aims to investigate the significance of external debt, unemployment rate, and Inflation on economic growth in Ghana using a dataset for the period 1991-2021.Assessing the properties of the time series using the ADF unit root test shows that GDP, external debt, and the unemployment rate were non-stationarity at the level and were integrated by the first-order difference I (1). The Johansen cointegration test provided evidence of long-term interdependencies towards economic growth, but inflation and unemployment rate negatively impact growth based on the cointegration equation. The ordinary least squares (OLS) regression with GDP as a proxy for growth shows that external debt positively impacts economic growth, whereas inflation and the unemployment rate adversely influence it. The outcome further proves that external debt increase inflation whereas GDP reduces inflation. There was no evidence of interdependencies found between the unemployment rate and inflation. External debt plays on the unemployment rate as an increase in external loans would expand unemployment, whereas GDP reduces unemployment. It is recommended that the government makes good use of the foreign debt as it benefits the economy in the long run and reduces inflation and unemployment. The study concludes that despite much criticism of external debt, it positively supports economic growth if well managed and allocated to more efficient sectors, which would expand the output (GDP).

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