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INFLATION AND UNEMPLOYMENT DYNAMICS IN GHANA

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ABSTRACT

This study analyzes the relationship between inflation and unemployment in the Ghanaian economy, which is characterized by abundant natural resources but hindered by low per capita income, high unemployment, and escalating inflation. The study employs the ARDL model to conduct a meticulous econometric analysis, revealing macroeconomic indicators' intricate impacts on economic growth and social welfare. The study reveals a consistent gap between government policies and economic difficulties, indicating an immediate requirement to adjust policy creation and execution. This study examines the societal implications of current economic conditions, specifically the potential for societal unrest and the erosion of families' purchasing power. Effective remedial action is imperative. The CUSUM and Sensitivity tests were employed to enhance our research, confirming the strength and dependability of our model and results. Based on our findings, we suggest practical policy measures to address these economic obstacles. The research aims to contribute to the critical discourse on Ghana's economic development, with a focus on achieving economic robustness and social equity in the future. This paper provides valuable insights for policymakers, economists, and researchers seeking to comprehend the intricacies of inflation and unemployment in developing economies, specifically those in contexts similar to Ghana.

KEYWORDS: *Inflation, unemployment, ARDL, Ghana*

INTRODUCTION

Inflation and unemployment are two crucial factors that significantly influence any economy's growth and development trajectory. Epstein and Yeldan (2008) suggest that these variables serve as indicators for measuring poverty rates in developing countries. Inflation is the decrease in a currency's purchasing power in relation to goods, while unemployment refers to the number of people who are without work(Orji, Anthony-Orji & Okafor, 2015). Inflation and unemployment are important macroeconomic issues that should be kept at low rates, preferably in the single digits, to promote stability in a nation's policies(Popescu and Diaconu (2022); Andre, Pizzinelli, Roth and Wohlfart (2022)).

Since the dawn of Ghana's independence, the issue related to unemployment has been a dominant thread in the national conversation. A World Bank report from 2022 attests to this reality, stating that Ghana's youth, who currently comprise 36% of the country's population, are rapidly expanding. However, despite the nation's robust economic growth over the last three decades, the job market has not expanded proportionally (World Bank, 2022). Furthermore, the National Population Census (2021) indicates that "young" adults represented approximately 75% of the unemployed adult population, highlighting the severity of the issue.

Despite Ghana's abundant natural resources, the country struggles with low per capita income, unemployment, and escalating inflation. These three challenges have resulted in a reduction in the economic growth of the nation, which

is a cause for concern(Ma, Oppong, Adjei, Adjei, Atta-Osei, Agyei-Sakyi & Adu-Poku, 2021). Policymakers and academicians globally, across both developed and developing nations, are increasingly concentrating on the issues of inflation and unemployment, thus recognizing them as two of the most demanding macroeconomic challenges in contemporary global economies (Sakyi, Osei Mensah & Obeng, 2017).

The primary goal of an economy is to attain stable prices, full employment, and consistent growth. Unfortunately, Ghana has struggled to realize these goals, and governmental interventions have been unsuccessful(Quartey, 2010). These economic dilemmas lead to various related issues, including high inflation, increased exchange rates, and growing debts that disturb the balance of payments(Abubakar, Aliero & Umaru, 2014). Given their interconnectedness as critical macroeconomic indicators, the issues pertaining to unemployment and inflation remain persistent in Ghana, hence requiring scholarly attention and policy intervention. This study aims to examine these challenges and propose viable solutions to steer the economy towards growth and stability.

Given the prevailing economic conditions, the significance of policymakers, economists, and scholars in interpreting the current scenario and guiding the nation towards better economic outcomes cannot be underestimated. Anning, Tuama and Darko (2017) emphasizes the importance of empirically investigating the interdependence of economic parameters to accurately determine their effects on Ghanaian society. Despite implementing several policies and programs by successive governments, the country faces persistent challenges of unemployment and inflation. This suggests that a gap between policy design and implementation exists. Amoako and Matlay (2015) suggests that a thorough examination of these initiatives can reveal their advantages and disadvantages and guide future policy-making.

Moreover, this pertains not only to quantitative information but also to qualitative aspects. The subject matter pertains to actual individuals. High youth unemployment rates can lead to social problems such as crime and social unrest(Huang & Huang, 2015). Inflation diminishes purchasing power, causing families to face difficulties in affording essential commodities. It is clear that a nation's economic well-being has significant social implications. Misini and Badivuku-Pantina (2017) suggest that it is our responsibility to pursue an economy that fosters and enhances the welfare of its citizens. Therefore, this paper will investigate the macroeconomic dynamics of inflation and unemployment in Ghana to understand their implications on economic growth and social well-being. Furthermore, the study aims to explore effective policy recommendations, thereby serving as a valuable resource for policymakers, economists, scholars, and all stakeholders vested in Ghana's economic prosperity. The intent is to promote Ghana's economic growth and achieve social equity for a prosperous and balanced future.

LITERATURE REVIEW

Unemployment and inflation are two important economic features; their relation is highly meaningful for policymakers. It is common knowledge of experts that the possible relation that holds between these two variables has been a key controversial issue among different schools of economic thought(Koohi Lai, Namaki, Hosseiny, Jafari & Ausloos, 2020). These findings begot an illusion that policymakers can permanently decrease unemployment at the cost of high inflation. Warnings about such a policy, however were made by the new classical economists such as Friedman (1977) and Dimand (2008). They argued that if, in the long run, policymakers increase the volume of money, agents realize the policy and increase prices. As a consequence of these situations, price growth would not be accompanied by a decline in unemployment, as wished.

Leasiwal (2021) showed that the gross domestic product and labor force variables experience significant results on the open unemployment rate in Indonesia. This indicates that the increase in gross domestic product and the number of job hires is in line with the increase in the number of unemployed. Meanwhile, the inflation rate has no effect, this indicates that the inflation rate has no relationship with the number of unemployed.

Inflation can affect all aspects of a country by influencing economic growth and employment. The relationship between inflation and unemployment in the economy has always been controversial. Most economic studies in this field have been ambiguous and associated with confounding results. Although a negative relationship was found between inflation and unemployment in the theoretical literature, empirical studies did not confirm this issue.

According to Fisher, policymakers generally believed that inflation causes a more serious problem than unemployment for a society. The most important task of economists and economic officials in every country primarily lies in controlling inflation in order to achieve economic growth with the development of appropriate infrastructures. Experiencing high levels of development in the past decades has kept inflation at a low level, promoted social welfare, and provided high levels of living standards for the citizens. It seems that necessary conditions for targeted control of the inflation rate can be met by adopting required fiscal tools and complementary monetary policies. Central bank independence and public confidence in the monetary system through transparency and stability of monetary policy, along with the adjusted financial system in the government through adopting a proper budget, are cited as key factors in controlling the rate of inflation. It is expected that long-term inflation stably keeps inflation rates at low levels. It is therefore essential to assure the public that the central bank would commit to its obligations. For this purpose, there should be a mutual interaction between the government and the central bank(Mohseni & Jouzaryan, 2016).

Inflation is a condition that is shown by the continuous increase in prices for goods and services. This condition definitely affects the decreasing purchasing power of society. Basically, a certain level of inflation also plays important role in the country. However, when it is not managed properly, it has consequences for the economy. Dealing with the problems, government policies in a country intended to achieve low rates of unemployment, stability in prices, and higher economic growth. In this case, the government could implement both fiscal and monetary policy. However, since the tradeoff between inflation and unemployment theoretically exist, it is difficult to ensure both goals can be achieved together. Therefore, policymakers should consider overcoming inflation or unemployment first. In the other words, when the government wants to enlarge job opportunities, it has consequences for price stability. Conversely, when policymakers keep prices remained stable, they should not consider having wider job opportunities.

Inflation and unemployment are the most critical problem in many countries. Those variables have consequences for various economic activities such as saving, investment export, poverty, economic growth, and so forth (Yolanda (2017);Behera and Mishra (2017)). The high rates of inflation, for instance, will decline the level of social welfare. In contrast, a low level of inflation potentially brings lower economic growth rates, inclining poverty, decreasing job opportunities, and gradually leading to recession. Behera and Mishra (2017) remarked that inflation positively affects the gross domestic product. Whereas the effect of unemployment rates can be depicted by several social, economic conditions such as declining economic growth, rising crime, and so forth.

The inflation rate has a positive or negative relationship to the number of unemployed. The Phillips curve illustrates the relationship between the inflation rate and the unemployment rate based on the assumption that inflation is a reflection of an increase in aggregate demand(Coibion, Gorodnichenko & Kamdar, 2018). According to demand theory, demand will increase, and then prices will also rise with an increase in aggregate demand. With high inflation, to meet the demand, producers increase their production capacity by increasing labor. As a result of the increased demand for labor, with rising inflation, unemployment decreases. Meanwhile, Amir (2007) showed that there is no significant effect between inflation and unemployment in Indonesia for the period 1980-2005 because the increase in new labor is much greater than the growth in employment that can be provided each year. When the level of unemployment is high, it tends to affect higher inflation. In fact, there is little attention on the relationship between inflation and the unemployment rate in Indonesia.

Inevitable studies on the relationship between inflation and unemployment have been performed in various countries (Alisa (2015); Idenyi, Favour, Johnson and Thomas (2017);Kasseh (2018)). Al-Zeaud (2014) conducted research in the State of Jordan and the finding showed that there is no evidence of causality between unemployment and inflation during the period of the study.

Furthermore, Alisa (2015) remarked that the relationship between variables, namely inflation and unemployment, inversely exists in the short term, whilst Touny (2013) showed that in the long run, the inflation rate and the unemployment gap over the above-mentioned period in Egypt.

In the context of India, Singh and Verma (2016) show that there is a causal relationship between inflation and unemployment. Bernanke and Blanchard (2023) stated that with the threat point of wage being a worker with zero unemployment duration, the wage with ranking is much more sensitive to changes in the tightness of the labor market.

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The same holds for efficiency wages. Gerlach, Lydon and Stuart (2016) found the difference between unemployment is a significant determinant of inflation in Ireland.

According to Phillips (1958), the high inflation rate is due to increased aggregate demand so companies need to increase production by increasing capital one labor capital. Therefore, the unemployment rate decreased with an increasing rate of inflation.

Al-Zeaud (2014) alleged that the research could not show a causal relationship between inflation and unemployment in Jordan. N'Guessan (2018) remarked that in the long run, unemployment growth causes the increasing price level; namely, the relationship between inflation and unemployment exists, and it is positive.

Kemal and Kocaman (2019) studied the nexus between inflation, economic growth, unemployment, and minimum wage, and the result showed that in the long run, an increase in the minimum wage and inflation induces an increase in unemployment, but an increase in economic growth decreases unemployment. Şentürk and Akbaş (2014) asserted that there is a strong correlation between the industrial production index, inflation, and unemployment. Mohseni and Jouzaryan (2016) investigated the effect of inflation and unemployment on economic growth in Iran during the 1996–2012 period, and they discovered that inflation and unemployment significantly impact economic growth in Iran.

METHODOLOGY

Model Specification and Data

The current study used time series data from 1991-2020 obtained from the World Development Indicators (WDI).

Table 1: Variables Definition and Source

Variables	Source
Consumer Price Index (CPI)	World Bank Development Indicators (2021)
Unemployment (% of GNI)	World Bank Development Indicators (2021)
Foreign Direct Investment (FDI)	World Bank Development Indicators (2021)
Gross Domestic Product (GDP)	World Bank Development Indicators (2021)
Trade Openness (TRADE)	World Bank Development Indicators (2021)

Note: All parameters were utilized in their natural log form.

The model explores the linear relationship between inflation and unemployment indicators and is stated as follows:

$$\mathrm{CPI}_{it} = \alpha + \beta_1 \mathrm{UEM}_{it} + \beta_2 \mathrm{GDP}_{it} + \beta_3 \mathrm{TRAD}_{it} + \mu_t + \varepsilon_{it} \quad (1)$$

Where;

In this study in order to test the occurrence of long-run relationships among the dependent variable real GDP which is used to measure economic repletion and the independent variables, we applied on Autoregressive Distributed Lag Model (ARDL) which was developed by (Pesaran, Shin & Smith, 2001). In contrast to the previously stated approaches, bound testing has several advantages.

Firstly, the autoregressive distributed lag model is a single equation method that can be applied to a relatively small sample size whereas; the Engle–Granger approach and Johansen cointegration approach are fairly data intensive. This approach results in unbiased estimates in the long run (Pesaran & Shin, 1995), and also the estimates obtained are relatively more efficient for finite and small sample sizes which are similar to this study. This avoids the problems that come as a result of serial correlation and endogeneity(Pesaran *et al.*, 2001). Secondly, it is applicable irrespective of whether the regressors are purely I (0) or purely I (1), or mutually integrated. Consequently, it avoids the volatility linked with the pre-testing for the order of integration of the individual variables. Thirdly, once the lag order of the model is obtained, it permits the cointegration relationship to be estimated by OLS, and also bounds testing is helpful to make a distinction between dependent and independent variables which allow-investigation ng the existence of the long-run relationship between them. Moreover, the short-run and long-run coefficients of the model are estimated simultaneously(Pesaran, Shin & Smith, 1997).

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Since the study uses the ARDL estimation technique, equation (1) was modified by using the lagged dependent variable as an explanatory variable. The lagged form of the equation is specified in equation (2) as:

$$CPI_{i,t} = \beta_0 + \sum_{i=1}^{N} \beta_1 \mathrm{UEM}_{i,t-1} + \sum_{i=1}^{N} \beta_2 \mathrm{GDP}_{i,t} + \sum_{i=1}^{N} \beta_3 \mathrm{TRAD}_{i,t} + \varepsilon_{it} \quad (2)$$

Using the AIC criteria in selecting the lag length, the regression estimation was done using lag lengths 4, 0, 4, and 2 for LNGDP, LNFDI, LNGFCF, LNTD, and LNMKT respectively. Equation (3) is specified to assess the short-run relationship between inflation and unemployment including the error correction term (ECT).

$$CPI_{i,t} = \beta_0 + \sum_{i=1}^{N} \beta_1 \mathrm{UEM}_{i,t-1} + \sum_{i=1}^{N} \beta_2 \mathrm{GDP}_{i,t-1} + \sum_{i=1}^{N} \beta_3 \mathrm{TRAD}_{i,t-1} + ECM_{t-1} + \varepsilon_{it} \quad (3)$$

Descriptive Statistics

The summary descriptive is exhibited below. CPI had a mean and median of 89.01 and 55.64. Whereas GDP1 had a maximum and minimum value of 6.85 and 4.98 respectively. UMEM and TRADG showed skewness and kurtosis value of 0.869, 0.387, and 3.042, 2.698 respectively.

Table 2: Descriptive Statistics

Parameters	CPI	GDP1	UMEM	TRADG
Mean	89.01	2.68	6.20	76.09
Median	55.64	1.56	5.74	71.90
Maximum	305.98	6.85	10.46	116.05
Minimum	2.22	4.98	3.49	42.49
Std. Dev.	92.47	2.36	1.78	17.72
Skewness	1.01	0.64	0.87	0.39
Kurtosis	2.79	1.82	3.04	2.69
Jarque-Bera	5.12	3.78	3.77	0.86
Probability	0.08	0.15	0.15	0.64
Sum	2670.29	8.04	186.07	2282.81
Sum Sq. Dev.	247994.8	1.61	91.68	9105.99
Observations	30	30	30	30

Correlation test

The covariance analysis is presented below. CPI is positively correlated with GDP1. On the contrary, UMEM and TRADG were negatively correlated with CPI and GDP1.

Table 3: Correlation test

	CPI	GDP1	UMEM	TRADG
CPI	1	0.2579	-0.4478	-0.1102
GDP	0.2579	1	-0.4737	-0.2189
UEM	-0.4478	-0.4737	1	0.6839
TRAD	-0.1102	-0.2189	0.6839	1

Panel Unit Root Test

In terms of stationarity, the Augmented Dickey-Fuller (ADF) results indicate all the parameters were stationary at first difference except CPI. Although the variables in the model should not have stationer on the same degree, Pesaran and Shin (1998) suggested avoiding the variables to be stationary in the second degree. Therefore, as the preliminary test for ARDL, the unit root test using Augmented Dickey-Fuller (ADF) test is conducted to justify the order of stationary of variables.

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Table 4: Panel Unit Root Test

	Level		First difference	
	T-stat	prob	T-stat	prob
CPI	-3.4370	0.0177**		
GDP	0.0224	0.9533	-4.4143	0.0017*
UEM	-2.0953	0.2479	-3.2016	0.0305**
TRAD	-2.8581	0.0628***	-5.0997	0.0003*

Note: *, **, *** denote significance at 1%,5%, and 10% levels respectively.

F - Bounds Test

In the first stage, the existence of the long-run relation between the variables under investigation is tested by computing the Bound F-statistic in order to establish a long-run relationship among the variables. This bound F-statistic is carried out on each of the variables as they stand as an endogenous variables while others are assumed as exogenous variables. When the computed F-statistic is greater than the upper bound critical value, then the H0 is rejected (the variables are cointegrated). If the F-statistic is below the lower bound critical value, then the H0 cannot be rejected. If the computed statistic falls within (between the lower and upper bound) the critical value band, the result of the inference is inconclusive and depends on whether the underlying variables are I(0) or I(1).

From the result below, the computed f-statistics is greater than the upper bound, hence, the study variables are cointegrated justifying the rejection of the null hypothesis. The f-statistics again is greater than the lower bound.

Table 5: F - Bounds Test **Null hypothesis: No level relationship**

Test statistic	Value	Sign.	I(0)	I(1)
F-Statistic	4.7475	10%	2.37	3.2
k	3	5%	2.79	3.67
		2.5%	3.15	4.08
		1%	3.65	4.66

Note: *, **, *** denote significance at 1%, 5%, and 10% levels respectively.

Empirical Results

The table below shows the nexus between inflation and unemployment in Ghana for the study period. The result shows that the lagged dependent variables CPI (-1) and CPI (-4) revealed a significantly positive link with the dependent parameter. This implies that current economic performance is influenced by the previous performance of the economy. CPI (-2), CPI (-3), DUEM (-1), DUEM (-2), DTRAD, DTRAD (-1) and DUEM (-4) exhibited a positive connection with the dependent variable, though only DUEM (-4) was statistically significant at the 5% level. On the flipside, DGDP, DUEM, DUEM (-3), DTRAD (-2) were negatively affiliated to the study dependent variable with DUEM and DTRAD (-2) being significant.

Table 6: Long-run Relationship

Selected Model: ARDL (4, 0, 4, 2)

Variable	Coefficient
CPI(-1)	0.8699
	(4.4481)*
CPI(-2)	-0.1044
	(-0.4313)
CPI(-3)	-0.1298
	(0.5550)
CPI(-4)	0.2964
	(1.7882)***
DGDP	-0.0538
	(-0.5182)
DUEM	-0.2711
	(-2.2074)**
DUEM(-1)	0.0309

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	(0.1790)
DUEM(-2)	0.2349
	(1.2803)
DUEM(-3)	-0.3092
	(-1.7636)
DUEM(-4)	0.4164
	(2.6737)**
DTRAD	0.0106
	(0.0867)
DTRAD(-1)	0.0088
	(0.1059)
DTRAD(-2)	-0.1701
	(-1.9974)***
C	0.2268
	(4.0267)*

Note: *, **, *** denote significance at 1%, 5%, and 10% levels respectively.

ARDL Error Correction Model

As it appears in the results of the bound test, there is a long-run and short-run relationship between inflation, unemployment, and, trade. It is necessary to estimate the error correction model (ECM). This ECM is used to correct the short-run behavior of the variables alongside the behavior of the long-run variables. From the result, the error correction model (ECT) is significant which indicates the presence of a stable long-run relationship among the variables. Similarly, the negative coefficient of the ECM shows that in the long run, all the endogenous variables return to equilibrium after a variation in the independent variables.

D(CPI (-1)), and D(CPI (-2)) were negatively linked to the dependent parameter in the short run. Whereas, D (CPI (-3)), D (DUEM), D (DUEM (-1)), and D (DUEM (-3)) showed a significant relationship with the dependent variable, (DLNUEM (-2)) revealed an unfavorable link with the dependent variable. Again, D(DTRAD) was significantly positive with the dependent parameter.

Table 7: ARDL Error Correction Model

Variable	Coefficient
D(CPI(-1))	-0.0621
	(-0.4459)
D(CPI(-2))	-0.1665
	(-1.3779)
D(CPI(-3))	-0.2964
	(-2.1852)**
	-0.2711
D(DUEM)	(-2.9580)*
D(DUEM(-1))	-0.3421
	(-2.8871)*
D(DUEM(-2))	-0.1072
	(-1.0273)
D(DUEM(-3))	-0.4164
	(-0.4164)*
D(DTRAD)	0.0106
	(3.7514)*
	-0.0680
CointEq(-1)*	(-5.6893)*
R-squared	0.8496
Adjusted R-squared	0.7593

Note: *, **, *** denote significance at 1%, 5%, and 10% levels respectively.

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Sensitivity Test

Table 8: Serial Correlation Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	6.472854	Prob. F(2,9)	0.0181
Obs*R-squared	14.74743	Prob. Chi-Square(2)	0.0006

Normality Test

The validity of the ARDL model should be confirmed by the diagnostics in order to provide robust interpretations from the models. The first test conducted is the normality test of residuals which can be seen from the figure below. Since the probability is higher than 5%, the residuals satisfy the normality diagnostics.

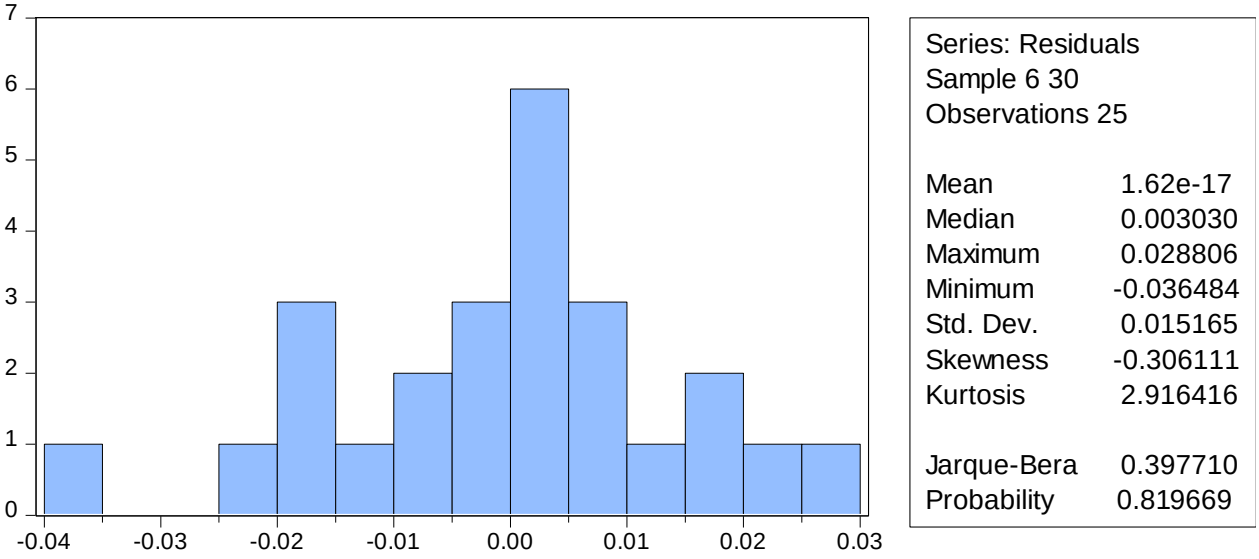

Figure 1: Normality test

CUSUM Test

The CUSUM test is conducted to check the stability in the coefficients of the series. This test makes inferences on the sums, or sum squares of the recursive residuals. It works with the null hypothesis of no structural breaks. The result of the CUSUM test is graphically presented in the figure below. Based on the graph, the blue lines represent the cumulative sum, both of which fall within the lower and upper bound critical values. Hence, the null hypothesis of the existence of no structural breaks cannot be rejected, indicating that there are no structural breaks in the model estimation and that the coefficients of all the series are stable over time.

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CUSUM Test

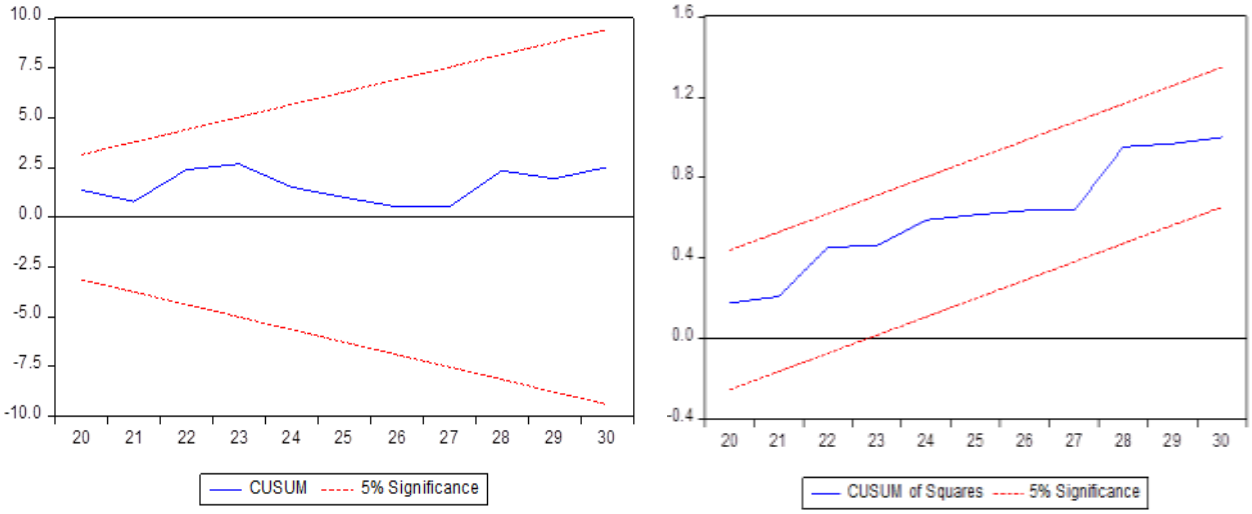

Figure 1: Cumulative Sum Graph

DISCUSSION OF RESULTS

Inflation can affect all aspects of a country by influencing economic growth, and employment. The relationship between inflation and unemployment in the economy has always been controversial. Most economic studies in this field have been ambiguous and associated with confounding results. Although a negative relationship was found between inflation and unemployment in the theoretical literature, empirical studies did not confirm this issue.

Contrary to the findings of Behera and Mishra (2017), the present studies established an unfavorable link between CPI and DGDP. However, DUEM (-1), DUEM (-2), and DUEM (-4) were positively connected with dependent parameters. DUEM, DUEM (-3) adversely affected the inflation rate in Ghana for the study period in agreement with the works of Touny (2013) in the long run. The effect of unemployment rates can be depicted by several social, economic conditions, such as declining economic growth, rising crime, and so forth (Huang & Huang, 2015; Minisi & Pantina, 2017).

The table below shows the nexus between inflation and unemployment in Ghana for the study period. The result shows that the lagged dependent variables CPI (-1) and CPI (-4) revealed a significantly positive link with the dependent parameter. This implies that current economic performance is influenced by the previous performance of the economy. CPI (-2), CPI (-3), DUEM (-1), DUEM (-2), DTRAD, DTRAD (-1) and DUEM (-4) exhibited a positive connection with the dependent variable, though only DUEM (-4) was statistically significant at the 5% level. On the flip side, DGDP, DUEM, DUEM (-3), and DTRADG (-2) were negatively affiliated with the study-dependent variable with DUEM and DTRAD (-2) being significant.

The above results illustrate that both domestic debt and external debt have a significant negative impact on the economic growth of Ghana. That implies that higher public debt, irrespective of its source, is reducing economic growth in Ghana in the long run. This finding is not surprising; particularly in the context of Ghana where most of the government borrowings are utilized in consumption expenditure and very few portions go towards forming productive capital. Similarly, the coefficient of debt service payment has a significant and positive impact on economic growth in the long run, which corroborates with the a priori expectation.

The final step of the ARDL model is the error correction for estimating the short-run parameter with the speed of adjustment. The results of the error correction model are presented in Table 5.

The results confirm that there exists a stable long-run relationship among the variables which is confirmed by the significance of the error correction term. The coefficient on the lagged error correction term measures the speed of

adjustment. The lagged error correction term is negative and significant, which implies that the series is non-explosive and that a long-run equilibrium is attainable. Because the ECM_{t-1} measures the speed at which the endogenous variable adjusts to changes in the explanatory variables before converging to its equilibrium level.

POLICY IMPLICATION

The results of this study have significant policy implications for Ghana. First, prioritizing effective monitoring of inflation is crucial. Thus, the correlation between inflation and economic performance highlights the necessity of implementing measures to maintain price stability, such as adopting inflation-targeting policies or tightening monetary policy. Our study emphasizes the significance of dealing with unemployment. That is, efforts should focus on reducing unemployment rates due to the diverse effects of unemployment on economic performance. This goal may be attained by investing in education, improving vocational training initiatives to cultivate a more proficient labor force, and promoting entrepreneurship and the expansion of small-medium scale enterprises.

Additionally, our study outlines the importance of fiscal responsibility. Thus, a prudent strategy towards government borrowing is essential due to the adverse impact of domestic and external debt on long-term economic growth. Policymakers ought to prioritize reducing dependence on debt and channeling borrowed funds towards productive investments rather than consumption expenditure; hence, implementing sustainable borrowing levels through comprehensive debt management strategies is crucial.

Also, the correlation between trade and economic performance implies that policies that promote trade can be advantageous. Hence, potential measures to enhance international trade could involve lowering trade obstacles, strengthening export activities, and fostering global trade alliances. Furthermore, our study highlights the importance of long-term economic planning, as it reveals the influence of lagged variables on current economic conditions. In Ghana's dynamic economic landscape, policymakers should prioritize sustainable, long-term consequences over short-term outcomes. This strategic focus is crucial for both short-term economic stability and long-term growth and development of the nation.

Similarly, facilitating collaboration between policymakers and academia can improve the decision-making process. This partnership enables the conversion of empirical research outcomes into practical policies, promoting evidence-based decision-making that suits Ghana's changing economic standing. Thus, Ghana can enhance its economic prosperity by incorporating current research findings into its policy formulation and execution, enabling it to effectively manage the intricate interdependence of inflation, unemployment, and other key economic indicators.

CONCLUSION

This paper systematically examines the long-term relationships between inflation, unemployment, and other important economic indicators in the context of Ghana. The ARDL model was used to analyses the interplay of factors, providing empirical support for theoretical postulates and sometimes challenging previous findings. Our study indicates a complex relationship between Ghana's economic performance and inflation rates, as measured by the natural logarithm of the Consumer Price Index (CPI), and unemployment rates. The present economic dynamics are influenced by both current and past economic conditions, emphasizing the significance of historical context. Furthermore, the study reveals that domestic and external debt has a detrimental effect on Ghana's economic growth in the long run. This implies the necessity of careful financial administration, specifically in ensuring that government borrowing is allocated towards productive capital formation instead of consumption expenditure.

The results from the ARDL model showed a stable and significant error correction term, suggesting a stable and long-term association between the variables. The dependability and validity of our findings are further demonstrated by this result, which was further validated by the CUSUM and Sensitivity Test. When taken as a whole, these tests strengthen the robustness of our model and improve its capacity to effectively reflect the delicate interplay between inflation, unemployment, and various other crucial economic variables in Ghana. However, while our study provides valuable insights, it has limitations. Thus, although our study was conducted meticulously and included several tests to ensure data suitability and reliability, it is important to note that econometric analyses have inherent limitations. Potential sources of bias in the results include omitted variables and measurement errors, which may lead to misinterpretation. Caution must be exercised when considering the generalizability of our findings.

Though our findings have great practical significance in the Ghanaian context, extending these findings to other economic environments (countries) may not produce accurate conclusions. Further research is required to examine these links in various geographical or economic settings because each economy has its own distinctive characteristics and dynamics. Hence, iterative research is crucial for comprehensively understanding complex economic phenomena. Also, this study highlights the necessity for additional research to investigate these relationships, focusing on broadening the empirical literature and generalizing the outcomes to other developing countries. These endeavors can improve our in-depth understanding of economic variables and dynamics for better and informed policy interventions.

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