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Article

Inflation, Unemployment and Economic Growth in Nigeria

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Abstract: This study investigates the links between inflation and unemployment on economic growth in Nigeria from 1980-2023 using the Ordinary Least Square approach. The study discovered the existence of a positive relationship between interest rate, unemployment rate and economic growth but a negative links exist between inflation rate and economic growth in Nigeria within the period under consideration. The study observed that inflation established its real impact of always being negative in terms of its links with economic growth in the economy of Nigeria. The study concludes that government should provide enabling environment to produce imported goods here in Nigeria to cushion the impact of imported inflation into the Nigerian economy.

Keywords: Inflation, Unemployment, Gross Domestic Product, Nigeria

1. Introduction

This economic concept proposes that inflation and unemployment are contrariwise linked. As such, it states that inflation is lead into the economy by growth and expansion. Therefore, the labour force in Nigeria has witnessed major instabilities in the unemployment rate as a result of numerous shocks in the economy (Abdulsalam, and Abdullahi, 2016; Adebisi, Azeez and Oyedeji, 2016). Subsequent to the exploration of oil in commercial quantities in Nigeria in the early 70s; government revenue improved albeit increase in public expenditure. The large revenue earned through oil sales was used to create emergency urban centers and abandoning the rural sector in the development process as well as raising the population of public service. The concern of rapid urbanization as a result of run-away population is high rate of unemployment. The aftermath of this was a drop in agricultural output as well as firm pressure on manufacturing output. This has climaxed in rising inflation and debility in gross domestic product growth rate (Ernest and Rani, 2011; Adebisi, Azeez, and Oyedeji, 2016). No economy is in self-isolation and isolated from external shocks such that global economic misfortune has indirect bearing on the macroeconomic indices of any nation. This was evident in the Ukraine-Russia war which has jointly affected the world output.

Nevertheless; the oil spills on the Nigerian ecosystem which has continued unabated has persistently contributed to water pollution and destruction of the aquatic lives of sea food and affected fishing in the South- South region of Nigeria (Al-Saadi, 2023; Chirwa and Odhimba, 2018). This is accentuated by the unending insecurity and militancy in the creeks of their region; internal displacement due to flooding has affected food supply;

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unemployment and inflation in the zone and Nigeria in general. In the South East; general insecurity occasioned by unknown gun-men and sit-at-home enforcements has also devastated the economy especially output growth of small and medium scale enterprises (Nweke, Igweike and Eze, 2023). In the last four decades; Nigeria has persistently faced increasing level of unemployment rate especially as the country ditched her into mono-cultural economy. The oil-based economy has thrown the entire Nigerian workforce as misfits to be absorbed into the oil sector which is solely filled with expatriate workers who are better equipped with modern technological expertise for the job. Besides; the agricultural sector which has hitherto provided the adequate valve in absorbing the large army of the unemployed has been neglected and abandoned. This ugly situation has left a big blow on the country's GDP (Dodo ad Idris, 2022; Jalingo, 2023). The manufacturing sector that depends on the output of agricultural has also suffered neglect and drop in output thereby suffocating aggregate output of the country. Given these scenarios; the growth rate of the GDP of Nigeria has continued to worsen; the rate of unemployment has remained all time high; rise in inflation rate is unprecedented amid other macroeconomic shocks. The Nigerian economy has continued to grapple with sustainable GDP growth rate over the years and in turn exerted negative influences on some macroeconomic variables such as household consumption spending; food insecurity; low level private domestic investment and inflation.

Statement of the Problem

The Nigerian economy is battling with serious inflation and employment as a twin problem so much so that the power and value of the Naira has been eroded over the years. Nigeria is richly blessed with abundant human and natural resources, but still finds itself engaging with high unemployment and inflation rates, due to years of neglect of the social infrastructures and general mismanagement of the economy. Previous governments in their own capacities have embarked on various policies to control inflation and reduce the level of unemployment in the country to no avail. Nevertheless, government efforts have not yielded the desired results as these problems are known to be skyrocketing rather than plummeting. The problem of inflation in Nigeria was brought about by the oil glut in 1970-1981, which resulted into Balance of payments deficits leading to foreign exchange crisis that compelled various measures of import restrictions. These restrictions reduced raw materials for domestic production and spare parts for machinery operation. The resultant shortage of goods and services for local consumption impelled the inflation rate to rise from 31% in 1981 to 42.2% in 1984. Several adoptions of programmes such as the Structural Adjustment Programme (SAP) in 1986, there was a temporal reduction in fiscal deficits as government removed subsidies and reduced her involvement in the economy. Nevertheless, as the effects of the Structural Adjustment Programme (SAP) policies gathered momentum, there was a decrease in the growth rate of gross domestic product (GDP) in 1990 from 9% to 0.2 % in 1994, with inflation snowballing from 8.0 % in 1990 to 60.0% in 1994 leading to a slow economic growth in the economy.

In 1995 to 1999, inflation rate rose to 80.1% due to increased lending rate, the policy of guided deregulation, and the lagged impact of fiscal indiscipline. The increase in unemployment in Nigeria, on the other hand, has resulted to decrease in consumption, due to low income earned by the citizens, thereby resulting to low production- the inability of firms to sell their goods, forces them to reduce their output. This has led to decrease in the economic growth of the nation. Unemployment also has social consequences as it increases the rate of crime. Similarly, being without a job in Nigeria, is as good as losing your self-respect and self-esteem among the people of your age bracket. The proportion of workers who are unemployed displays how well a nation's human resources are used and serves as an index of economic movement (positive or negative). In 1999, the unemployment rate was 17.5%, while at the end of President Obasanjo's administration in 2007; the rate of unemployment had reduced marginally to 12.7%. From 1999 to 2007, the rate of unemployment averaged at 13.1% – still quite high, since 5% is perceived as the

accepted rate. In 2008, the rate of unemployment was almost 14.9% and rose drastically to about 23.9% in 2011. The unemployment rate has been rising from 1980 to 2011. A recent forecast shows that the rate would continue to increase up to the year 2023.

Objective of the Study

The broad objective of the study will be to examine the relationship between unemployment, inflation and economic growth in Nigeria. These specific objectives are to;

I. Determine the link between inflation rate and economic growth in Nigeria.
II. Examine the relationship between interest rate and economic growth in Nigeria,
III. Study the association between unemployment rate and economic growth in Nigeria.

Study Hypothesis

In view of the foregoing study, with respect to exchange rate and industrial output in Nigeria, the following null hypothesis shall be tested:

Ho: Inflation rate does not have any significant impact on economic growth in Nigeria.

Ho: Interest rate does not have any significant impact on economic growth in Nigeria.

Ho: Unemployment rate does not have any significant impact on economic growth in Nigeria.

Theoretical Literature Reviewed

Phillips Hypothesis of Unemployment and Inflation Relationship

The policy makers of both developed and developing economies have deliberately pursued economic stability in their respective countries; yet the debilitating problems of high inflation and unemployment continue to stare them in the face. Expansionary monetary policy often deployed to raise output that will reduce growth in unemployment consequently increase aggregate demand and in turn trigger inflation upsurge. In the study by Phillip (1958) there exist a negative correlation between unemployment rate and inflation rate. This depicts a trade-off between the two variables; implying that policy makers would perhaps hold inflation constant while tackling the problem of unemployment and vice versa. The relationship between inflation and unemployment is established on grounds of demand and supply of labour deficits. If there is excess labour demand above supply of labour; certainly, price of labour will rise and demand for goods will increase consequently inflation rate will rise.

On the other hand; if there is excess supply of labour above the demand for labour; the price of labour will fall and inflation rate will decline. It follows therefore that the pressure on wage rate to fall or rise is a function of changes in aggregate demand and supply of labour. In the same vein, the relationship between unemployment rate and inflation is the difference between labour and supply meaning that if the demand for labour is greater than labour supply, the surplus in labour will mount pressure on wage rate thereby causing rise in inflation and in turn forcing unemployment rate to fall and vice versa thus, the relationship between inflation; unemployment and economic growth is explained both in the short run and long run.

The Classical Theory of Unemployment

The fundamental principle of the classical theory is that the economy is self-regulating. The classicists assume the existence of full employment without inflation. Given wage-price flexibility, there are automatic forces in the economic system that tends to maintain full employment, and produce output at that level. In the classical model, the equilibrium income and employment are determined largely in the labour market. At

lower wage rate more workers will be employed. That is why the demand curve of labour is downward sloping.

The classicists also hold that there is always full employment, so that the existence of unemployed workers is a logical impossibility. Any unemployment which existed at the equilibrium wage rate was due to frictions or restrictive practices in the economy. Thus, full employment is regarded by the classicists as a normal situation, while unemployment is abnormal.

Empirical Literature Reviewed

Ekpeyong (2023) study conducts an econometric analysis using time series data from 1980 to 2021 to examine the relationship between explanatory factors and poverty in Nigeria. The study employs both short-run and long-run estimates through the Non-Linear Autoregressive Distributive Lag (NARDL) approach. By utilizing a comprehensive dataset and applying various econometric methodologies, the study aims to provide reliable results. The findings suggest that in the short run, inflation, unemployment (positive and negative shocks), and population significantly influence poverty rates in Nigeria. However, these effects are not statistically significant at conventional levels. In the long run, population growth, unemployment, and inflation (negative shock) do not have a substantial impact on poverty. On the other hand, economic growth, as measured by GDP growth, demonstrates a positive relationship with poverty reduction. The analysis indicates that sustained economic growth leads to lower poverty rates over the long term. Based on these results, the study emphasizes the importance of promoting sustainable economic growth as a key strategy for poverty reduction in Nigeria. Policy measures that focus on job creation, inflation control, and investment in human capital development are crucial for poverty alleviation. Additionally, addressing the specific needs of vulnerable populations and regions with high poverty rates should be prioritized.

This study contributes to the existing literature by providing empirical evidence on the relationship between explanatory factors and poverty in Nigeria. The findings underscore the significance of a comprehensive approach that combines inclusive economic growth with targeted policies to address the structural factors underlying poverty. Nnachi and Ugochukwu (2023) investigated the effect of unemployment and inflation on economic growth of Nigeria for the period between 1981-2021. The study used standard econometrics techniques such as autoregressive distributed lag model (ARDL) to measure the degree of effect of inflation and unemployment on economic growth. It also deployed the Pesaran and shin bound testing procedure to determine the short run and long run relationship of the variables under study. The findings revealed that inflation and unemployment have long run relationship with economic growth. It further revealed that unemployment is inversely correlated with economic growth whereas inflation is positively related to economic growth. In specific terms, one per cent increase in GDP resulted to a fall in unemployment rate by -0.019. The result also shows R2 value of about 0.61 per cent indicating that gross domestic product accounts for about 61 per cent of the variation in unemployment rate in Nigeria. The study therefore recommends that the government should tailor policies that can spur economic activities which in turn will reduce unemployment rate and stabilize prices.

Dodo and Idris (2022) study examines the impact of inflation on unemployment in Nigeria from 1985 to 2019. In analysing the data, nonlinear autoregressive distributive lag (NARDL) was employed. The result of the nonlinear ARDL shows that in the short-run inflation (positive) has a negative and significant effect on unemployment while inflation (negative) has a positive and significant impact on unemployment. Similarly, in the long run, inflation (positive) has a negative and significant effect on unemployment. The study concludes that there is a piece of empirical evidence for the existence of the nonlinear Phillips curve in Nigeria, within the period of the study. It is recommended that the government should reduce the positive rise in price by implementing policies that

encourage production. An increase in agricultural production for example increases the level of employment which has great potential to boost food supply and reduce the level of inflation and unemployment in the economy. In addition, the study identifies the benefits and inherent potentials in natural resources in Nigeria that can be harnessed to address the problem of inflation and unemployment. Hjazeen, Mehdi and Huseyin (2021) study is to investigate the impact of unemployment on Jordan's economy over the period 1991–2019. This study used the auto-regressive distributed lag (ARDL) model to investigate the relationship between the unemployment rate and the other variables.

Also, we employ the ARDL bootstrap co-integration approach to examine the correlation and long-run relationship among the variables. The empirical finding indicated a long-run relationship between the unemployment rate, economic growth, education, female population, and urban population in Jordan. Our finding shows the negative linkage between economic growth and unemployment, and a positive relationship among the education, female population, and urban population and unemployment in Jordan. Miftahu (2021) noted that the instability of unemployment and inflation has attracted the attention of policymakers especially on how to maintain low and stable unemployment as well as relatively stable prices so as to achieve high economic growth. However, it appears that government intervention has not been able to cure the ills in the Nigerian economy. In order words, full potentials of labour-surplus have not been fully exploited. In view of the aforementioned, this study investigates the effect of unemployment and inflation on economic growth in Nigeria using annual time series data covering the period of 1986 to 2020. To examine the model coefficient, ordinary least square technique is employed.

Findings indicate that the coefficient of unemployment has a negative and significant effect on economic growth in Nigeria; while inflation exerts a positive effect. The nature of unemployment and inflation characterizing the Nigerian economy are structural and cost-push respectively; hence the need by the government and relevant agencies to formulate policies to encourage self- employment and reduce cost of doing business so as to achieve a high, rapid and sustainable economic growth. Xesibe and Nyasha (2020) study empirically examined the impact of unemployment on economic growth in South Africa, using time series data from 1994Q1 to 2017Q4. The study made use of the error correction model in determining the relationship between unemployment and economic growth. In addition to economic growth and unemployment, four control variables were added to the model. These were government expenditure, inflation, investment and household final consumption expenditure. Using the error correction model (ECM), the results of the study reveal that there is a negative relationship between unemployment and economic growth in South Africa. An increase in unemployment in South Africa would reduce the rate of economic growth. Based on the study findings, where unemployment was found to have a negative impact on economic growth in the study country, the South African authorities responsible for economic policy are recommended to formulate and enhance policies that aim at reducing unemployment in the country.

Elias, Anna and Eze (2018) study examined the relationship between unemployment, inflation and economic growth in Nigeria for the periods 1986 to 2015 using the Ordinary Least Squares (OLS) Method. The stationery properties of the variables were tested using the Augumented Dickey Fuller Test (ADF), while the Johansen Co-integration and the Granger Causality Tests were employed to determine the long run relationship and direction of causality of the variables respectively. The estimated regression showed Unemployment and Inflation were not statistically significant in explaining growth in the economy for the periods under review. The study therefore recommended that policy direction should focus on creating job opportunities for both uneducated and educated individuals by stimulating economic activities within the real sector of the Nigerian economy and pursuit of expansionary fiscal policies that could boost economic growth in the long-run. Efrianti, Marwa, Tarmizi and Yuliana (2018) study the relationship between growth, unemployment and poverty in districts/cities of South Sumatera Provinces. The

research applies to Okun's law and trickledown effect theory to explain the relationship between growth and unemployment with its implication in poverty. This theoretical model can be applied to empirical studies to examine if development activities undertaken in a region have been successful in impacting employment and reducing the number of the poor. Therefore, we used fixed effect model estimation of six variables, namely, economic growth, unemployment, poverty, government expenditure, investment, and population of 15 districts/cities in South Sumatera Province in period 2010- 2017.

Research findings have shown that the relationship between economic growth and unemployment support the Okun's law. The same applies to the relationship between economic growth and poverty when they trickle-down effect was happened in the analysis period. Lyuboslav (2017) investigated the association between economic growth, unemployment and inflation in Bulgaria during 2006-2016. The theoretical literature shows that there is a positive relationship between economic growth and inflation whereas the relationship between economic growth and unemployment is negative. Our analysis of how this applied in Bulgaria during this period was conducted by means of econometric verification of information collected via quarterly indicators. When adding the lag effects, the results express three major trends. In the first place, there is a positive impact of growth on inflation in Bulgaria; this mostly finds expression in a lag of one and four quarters, as well as it is expressed in the current period. Secondly, there is a noticeable negative impact of growth on unemployment, a trend that mostly finds expression in a lag period of one or two quarters. In the third place, 'Okun's Law' is valid, although there is a tendency of a decreasing negative relationship between growth and unemployment in the course of the period as a whole.

Abdulsalam and Abdullahi (2016) investigates and determine the effects of unemployment and inflation on economic performance in Nigeria within the specified period as in the title and to establish the relationship between unemployment and inflation with real gross domestic product in Nigeria. Design/methodology/approach - Ordinary Least Square (OLS) technique was adopted with various diagnostic tests to determine how fit are the data for the analysis. Findings - The result of Diagnostic test indicates that data for the analysis are stationary at level and there are 2 co-integrating equation implying that there exists long-run relationship between RGDP, Unemployment and inflation. The results indicated that unemployment and inflation are positively related to economic growth. Research limitations/implications - The study uses only OLS and Diagnostic to carry out the analysis and it only cover the period from 1981 to 2014. Originality/value - The originality of this study lies on findings and interpretation of the result of regression analysis. The positive relationship between unemployment, inflation and RGDP indicates that Nigeria RGDP is driven by oil revenue that employs very limited highly skilled labour and the price of output of crude oil is determined externally which may not response as expected to growth of output in the country.

Mohseni and Jouzaryan (2016) examined the effects of inflation and unemployment on economic growth in Iran for the period 1996-2012. The author's employed the Autoregressive Distributed Lag (ARDL) Model estimation technique and revealed that inflation and unemployment exert a significantly negative effect on economic growth in Iran in the long-run, suggesting that economic growth in Iran in the long term could be decreased by high inflation and unemployment rates. Similarly, investigating the effect of inflation and unemployment on economic growth in Pakistan. It was established that inflation and unemployment affect economic growth negatively. However, only the effect of unemployment on economic growth was observed to be statistically significant. Anthony-Orji and Okafor (2015) examines the inflation and unemployment nexus in Nigeria by testing if the original Phillips curve proposition holds for Nigeria. The study adopted a distributed lag model with data covering the period 1970-2011. The consumer's price index (a measure of inflation rate), was regressed on unemployment rate, growth rate of money supply, budget deficit, real gross domestic product, interest rate and the lag

of current interest rate. The result reveals that unemployment is a significant determinant of inflation and that there is a positive relationship between inflation and unemployment rate in Nigeria. This finding invalidates the original proposition on the Phillips curve hypothesis in Nigeria.

The study therefore recommends that the economy should be diversified and appropriate policies should be put in place by Government and the monetary authorities in order to curb the menace of inflation and unemployment and consequently reduce the problem of stagflation in Nigeria. Again, there is a need for strong institutional collaboration in dealing with these two macroeconomic variables; unemployment and inflation as have been recommended in the study. Mohammed, Okoroafor and Omoniyi (2015) finds inflation and unemployment inversely correlated with economic growth. Unsteady growth rate of the GDP worsened the unemployment rate thereby increasing pressure on consumer prices. The Nigerian economy has persistently suffered slow economic growth rate not minding her huge natural and human resources over the years this has in turn inadvertently impacted negatively on the rate of unemployment and inflation.

Bello and Auwal (2015) in their study examined how unemployment and inflation substantially affect economic growth. Ordinary Least Square (OLS) method, Augmented Dickey-Fuller (ADF) technique and Granger causality test. The result of the regression revealed that the coefficient of inflation is positive and statistically significant while unemployment is positive but has no significant effect on economic growth. This proves that inflation substantially affect economic growth, although unemployment has little substantial effect on it. Moreover, result of the unit root indicates that all the variables in the model are stationary whereas, the result of causality test suggests that unemployment does not granger causes economic growth and inflation, but economic growth and inflation Granger cause unemployment, also there exist Granger causality between economic growth and inflation. Therefore, the result suggests a one-way causation flowing from inflation to GDP. Consequently, the major policy implication of these results is that concerted efforts should be made by policy makers towards restructuring the economy, managing price instability and improving infrastructure.

2. Materials and Methods

Model Specification

This study specifically adopts the model of Ademola and Badiru (2015) to study the impact of inflation rate, unemployment rate and economic growth in Nigeria.

Where:

RGDP = real gross domestic product

INFR = inflation rate

UNPR = unemployment rate

The econometric model becomes

The apriori expectations are as follows

. These are non-negative values of the parameter estimates.

The model was chosen because of the similarity of the data analytical technique. Thus, the model in this study is modified and represented in a functional form as shown below

The econometric functional form of the model is stated as:

Where:

GDP = gross domestic product

INFR = inflation rate

INTR= interest rate

UMPR =unemployment rate

μ = Error term

= Regression intercept

= Coefficients of independent variables.

The apriori expectations are as follows

These also represents non-negative values of the parameter estimates..

3. Results

Unit Root Test for Stationarity of Series

Table 1. ADF test.

Augmented -Dickey Fuller Test							
Variables	Levels			First difference			Order of integration
	ADF Stat	Test critical value (5%)	Remark	ADF Stat	Test critical value (5%)	Remark	
AGDP	-2.387644	-2.520786	NS	-5.928733	-3.346609	S	1(1)
INTR	-2.242456	-2.520765	NS	-6.351419	-3.636609	S	1(1)
INFR	-2.457355	-2.529734	NS	-4.663793	-3.463083	S	1(1)
UMP	-2.559314	-2.520756	NS	-12.06367	-3.423623	S	1(1)
Note: the ADF tests for H_0Xt as 1(1) against H_1Xt as 1(0)							

The Augmented Dickey-Fuller (ADF) test is credited to Dickey and Fuller (1979, 1981). One advantage of ADF is that it modifies for higher order serial correlation by adding lagged difference term on the right-hand side. Entirely the variables were not stationary at levels but they became stationary at their first differences. Completely, the variables in the model are homogeneous of order one 1(1) and in so doing fostering the problem of spurious regression linked with time series data. In order words, the variables could be co-integrated.

Table 2. Co-integration Test.

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.456956	131.8665	88.34165	0.0000
At most 1	0.548167	34.41708	56.24568	0.0591
At most 2	0.358046	22.84489	35.01087	0.5856
At most 3	0.163836	10.051578	18.39758	0.5748
At most 4	0.117468	1.723287	3.841458	0.3951
Trace test indicates 1 cointegrating eqn(s) at the 0.05 level				

Source: Authors' computation (E.view 9.0)

From Table 2, the Trace statistics indicates the existence of 1 co-integrating association among the variables at 5 per cent level of significance. The presence of co-integration among the variables displays that there is a clear long-run equilibrium link

among the variables under examination. The rule states that, for variables to have long-run equilibrium affiliation there must be at least one co-integrating equation. The Trace statistics therefore revealed the existence of a long-run equilibrium connection among the variables.

Table 3. Johansen Co-integration Test Result (Max-Eigen Test).

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.706975	76.44534	47.16365	0.0000
At most 1 *	0.648167	34.57332	28.81556	0.0302
At most 2	0.368066	15.79286	35.56222	0.6964
At most 3	0.183865	9.328323	7.237799	0.5670
At most 4	0.017455	0.723256	3.641444	0.3951
Max-Eigen Test indicates 1 cointegrating eqn(s) at the 0.05 level				

Source: Authors' computation (E.view 13.0)

Correspondingly, from Table 3, the Maximum-Eigen statistic indicates 2 co-integrating equation at 5 per cent level of significance as a result signifying the rejection of the null hypothesis of zero co-integrating association. This is established by the fact that the Max-Eigen statistic value is greater than the critical value at 5 per cent level of significance. Therefore, there is a long-run equilibrium affiliation between the dependent variables and the independent variables within the period under review. Summarily, both the Trace and Max-Eigen test statistic confirms the existence of a long-run equilibrium relationship between the variables and the hypothesized fundamentals for the period under consideration i.e. 1980 - 2023. We therefore reject the null hypotheses of no co-integration amongst the variables but we do not reject the alternative hypotheses. On the premises of the result from the Johansen co-integration test which established the existence of a long run relationship among the variables, we consequently have the confidence to conduct the short run dynamic adjustment. Accordingly, we proceed to estimate an over-parameterized error correction model from where the parsimonious error correction mechanism is obtained.

Short Run Estimates

Where co-integration exists among series, then the next step is to construct an error correction mechanism to model dynamic relationship. The real essence of the error correction model is to display the speed of adjustment from the short run equilibrium to the long run equilibrium state. The greater the co-efficient of the parameter, the higher the speed of adjustment of the model from the short run to the long run.

Table 4. Parsimonious Error Correction Model (1980 -2023)

Variable	**Coefficient**	**Std Error**	**T***	**Prob**
D(IFR)	-0.155634	0.089564	-1.352430	0.1697
D(IFR(-1))	0.453865	0.023425	2.056430	0.0389
D(IFR(-2))	0.320843	0.220896	2.423677	0.0225
D(ITR)	0.896743	1.486754	0.607658	0.4254
D(ITR(-1))	2.243158	1.436758	1.542097	0.1423
D(ITR(-2))	0.795463	1.453879	0.432890	0.5876
D(UMP)	0.143267	6.806750	2.876532	0.0234
D(UMP(-1))	-2.654870	5.875643	-0.876509	0.5534
D(UMP(-2))	-1.654783	4.342769	-0.023175	0.8895
ECM(-1)	-0.653523	0.056493	-3.768597	0.7865
R^2 = 0.678801	Adj. R^2 =0.568743	DW=5.967547		

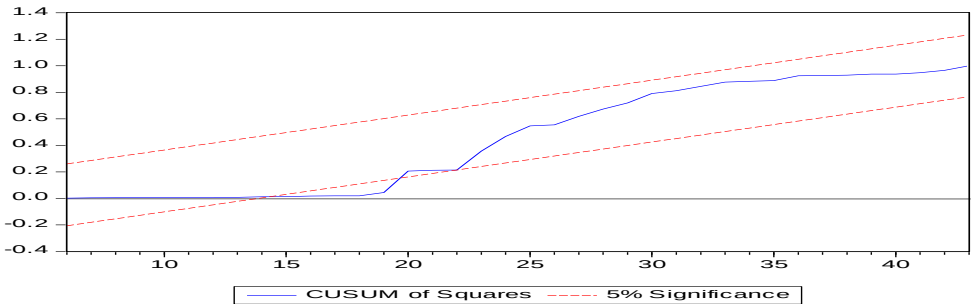
Source: Author Computation (EVIEW 13.0¬)

4. Discussion

The result from table 4 discloses that the Adjusted R2 is 0.678801 which indicate that about 67 per cent of the systematic variation in the economic growth is explained by the independent variables in the model. The remaining 33 per cent is attributed to variables not included in the model but are captured by the error term. The result also explains that DW statistic value is 5.967547 and represents absence of first –order serial autocorrelation in the model. The Error Correction Method Coefficient value is -0.653523 or 65 per cent and correctly signed with negative sign and very significant. This suggests that economic growth in Nigeria adjust speedily to the changes in the explanatory variables. Thus, the ECM (-1) is able to correct and tie any deviations from the long –run association between economic growth performance and the explanatory variables to its short-run association.

Stability Test

To determine the stability of the estimated coefficients of the real domestics' equation for Nigeria, cumulative sum of squares of recursive residuals (CUSUMSQ) test developed by Brown et al. (1975) was adopted.



The CUSUM of square plot do not cross the 5% critical lines, implying that over the entire sample period of investigation, the stability of the estimated coefficients exists, so that the regression coefficients are reliable and suitable for policy making. The CUSUM of square test indicates that there was stability within the review periods in the model from 1980- 2023

5. Conclusion

This study examines the outcome of inflation and unemployment on economic growth in Nigeria with the use of unit root, Co-integration test, Error correction method and stability test techniques. The results of unit root test suggest that all the variables in the model are stationary at first difference and that of Johansen co-integration indicates that there is co-integration suggesting the existence of long run relationship between economic growth, inflation and unemployment. The results also discovered that inflation and unemployment are positively related with economic growth, which means inflation and unemployment does not hinder economic growth. A foremost policy implication of this result is that intensive effort should be made by policy makers to upsurge the level of output in the other sectors of the economy in Nigeria by improving on productivity in order to reduce unemployment and the prices of goods and services (inflation) so that Nigeria economy can have inclusive economy growth. We recommend that non-oil sector should be expanded to increase the growth of output. Furthermore, the policy implication of this study is that government should embark on production that requires labour intensive technique of production as against capital intensive since Nigeria is blessed with abundant labour force. Lastly, the government should embark on policy that will decrease the number of imported goods considerably and boost local production and consumption

to encourage domestic industries thereby reducing inflation and unemployment alongside interest rate in Nigeria and surge output hence economic growth.

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