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Impact of Inflation and Unemployment on Economic Growth in Nigeria

By

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Abstract

This study investigates the relationship between inflation, unemployment, and economic growth in Nigeria, using Generalized Method of Moments (GMM) technique of estimation and data from 1999 to 2023. The results show that both inflation and unemployment have a significant negative impact on economic growth, with unemployment having a more pronounced effect. Specifically, a 1% increase in inflation rate leads to a 1% decrease in economic growth, while a 1% increase in unemployment rate leads to a 10% decrease in economic growth. The results of the study further show that government expenditures have a significant positive impact on economic growth, with a one percent increase in government expenditures leading to a 0.30% increase in economic growth. The study recommends amongst others that policymakers in Nigeria should prioritize strategies aimed at reducing inflation and unemployment rates to stimulate economic growth and improve the overall well-being of the population. In addition, government should prioritizing capital expenditures in strategic sectors that can promote economic growth, improve living standards, reduce corruption, reduce poverty and improve the efficiency of government spending in Nigeria.

Keywords: Inflation, Unemployment, Economic Growth, Nigeria.

JEL classification: E23, E31, J64.

1 Introduction

Nigeria, Africa's largest economy, has struggled with persistent economic challenges, including inflation and unemployment, which have hindered its growth and development. Inflation, defined as a sustained increase in the general price level of goods and services, has been a recurring issue in Nigeria, with rates often exceeding the central bank's target range. Unemployment, particularly among the youth, has also remained a pressing concern, with far-reaching implications for economic stability and social cohesion. The interplay between inflation, unemployment, and economic growth is complex and multifaceted. While a moderate level of inflation can be a sign of a growing economy, high and persistent inflation can erode purchasing power, reduce

investment, and hinder economic growth. Similarly, unemployment can have debilitating effects on economic growth, as idle labor resources fail to contribute to national output. Understanding the impact of inflation and unemployment on economic growth in Nigeria is crucial for policymakers seeking to promote sustainable economic development and improve the well-being of citizens. This study aims to investigate the relationship between inflation, unemployment, and economic growth in Nigeria, using empirical data and analytical techniques. By examining the dynamics of these macroeconomic variables, this research seeks to provide insights into the policy interventions required to mitigate the adverse effects of inflation and unemployment on economic growth in Nigeria.

1.1 Background of the Study

The primary goal of every nation is to achieve economic growth and development. Economic growth refers to the increase in a nation's wealth over time, which is typically measured by the growth in the production of goods and services. Economic growth has various benefits for countries, such as higher income, improved standard of living, better healthcare, and enhanced education. It also strengthens a country's fiscal position, enabling governments to support poverty reduction programs and enhance societal welfare. Sustainable growth plays a vital role in economic development. To ensure sustainable growth, it is important to achieve low and stable levels of inflation and unemployment (Castellet & Domingo, 1997). Therefore, Understanding the relationship between inflation, unemployment, and economic growth is essential for policymakers, economists, and analysts.

Inflation and Unemployment have been a source of concern, most especially in developing country like Nigeria, to policymakers, monetary authorities and researchers alike. This is because inflation and unemployment are one of the key macroeconomics indicators and determinant of economic growth which is the priority of any country. Economic growth in Nigeria has remained largely underdeveloped despite the increases in growth rate declare every year. In 2023 budget, Nigeria Economy was projected to grow at 3.75% and in 2024 budget it was projected to grow at 3.76% slightly surpassing that of 2023, a figure higher than the developed country like USA that recorded the growth rate of 2.6% in 2023. The economic growth in Nigeria has been described as exclusive growth which is worrisome and calls for concern. The per capita income is low, unemployment and inflation rates are high. There are many socioeconomic challenges such as hunger, frustration

and threat to social security accessioned by the mix growth and contraction in the past years; 2019 (2.1%), 2020 (-1.7%), 2021 (3.65%), 2023 (3.75% and 2024 (3.76%).

The conditions in Nigeria is worrisome. The different macroeconomic policies by government is seen to be unable to achieve desired goals of price stability, reduction in unemployment and sustained economic growth. The fluctuations in the economic growth rates have confirmed the need to manage the economy effectively. The essence of macroeconomic management underlines the rationale of the government as a vital economic agent. However, it appears that government interventions have not been able to cure the ills in the economy.

For many years, economic performance has not been impressive. The continued economic crisis, with the associated problems of high inflationary pressure, high exchange rate, debt overhang, adverse balance of payment and high inflation rates is difficult to explain. Against a high rate of unemployment and underemployment, a large public sector, low wages and poor working conditions has been persistent high inflation rate in Nigeria. Also, underemployment and unemployment are prominent feature of the informal labour market as well. Consequently, the full potentials of labour-surplus economy have not been fully exploited (Aminu and Donga 2014).

Inflation and unemployment are two intricately linked economic concepts. Over the years there have been a number of economists trying to interpret the relationship between inflation and unemployment (Ademola & Badiru, 2016). The relationship between inflation and unemployment can be better explained with Phillips curve. In the short term the Phillips curve happens to be a declining curve. The Phillips curve in the long term is separate from the Phillips curve in the short term. It has been observed by the economists that in the long run, the concepts of inflation and unemployment are not related. In the view of classics view, inflation is caused by the alterations in the supply of money. When money supply goes up the price level of various commodities goes up as well. The increase in the level of prices is known as inflation. According to the classical economists there is a natural rate of unemployment, which may also be called the equilibrium level of unemployment in a particular economy. Furthermore, Keynesians seen inflation to be an aftermath of money supply that keeps on increasing accessioned by institutional crises that are encountered by people when firms increase prices. Firms make abnormal profit by increasing the prices of the goods and services that are provided by them. Also government increases money supply in order to meet up with this demand, so that the economy may keep on functioning.

From the foregoing, the study intends to investigate the impact of inflation and unemployment on economic growth in Nigeria with specific objectives as (i) to examine the impact of inflation on economic growth in Nigeria. (ii) to investigate the effect of unemployment on economic growth in Nigeria and (iii) to assess the combined impact of inflation and unemployment on economic growth in Nigeria. Although many scholars work indicates negative relationship between inflation, unemployment and economic growth (see Popovic, 2009; Aminu & Anono, 2012) and Muhammed (2014) reported an ambiguous relationship between inflation, unemployment and economic growth. To carry out this work, the study was divided into four sections. The next section presents conceptual and empirical framework followed by methodology and data analysis. The last section concludes the study.

2. Literature Review

This part reviews various literatures on inflation, exchange rate and economic growth. First, the conceptual review defines the terms. Second, the theoretical review gives insight into the various theories that have been propounded on inflation and exchange rate. Lastly, the empirical review that bothers on the empirical findings by other scholars were examined.

2.1. Conceptual Review

2.1.1 Economic Growth

Economic growth according to Jhingan (2003), is the process whereby the real per capital income of a country increases over a long period of time, and is measured by the increase in the amount of goods and services produced in a country. A growing economy produces more goods and services in each successive time period. Thus in a wider perspective, it implies raising the standard of living of the people and reducing inequality of income distribution. Zhattau (2013) economic growth is the basis of increase prosperity and it comes from accumulation of more capital and innovations which lead to technical progress, the idea similar to Solow (2002) growth model who sees economic growth in terms of growth in total GDP due to increase in population, technical progress and investment.

Growth according to Classical Economist signifies increase in the rate of investment. In other words, growth is a function of share of profit in the national income. There exists a positive relationship between higher rate of profit and higher rate of growth in the long run.

2.1.2 Inflation

According to Balami (2006), inflation is a situation of a rising general price level of broad spectrum of goods and services over a long period of time. It is measured as the rate of increase in the general price level over a specific period of time. Inflation occurs when there is a sustained increase in the general price level of goods and services. When a price increase is sustained and exceeds a predetermined threshold, it is referred to as inflation. For example, an increase in the money supply would quickly lead to an increase in the price level. In the literature, there are different kinds of inflation. Some examples of these varieties are: Demand-pull, which occurs when aggregate demand increases without a corresponding increase in supply while a supply push, or cost-push inflation occur when there, is a decrease in supply due to an increase in the cost/price of the commodity produced (Anochiwa & Maduka, 2015).

Inflation is the steady rise in the price level that can lead to low productivity of the population. If productivity is low, the economy will not grow as it should. Money is a medium of exchange for goods and services and the strength and stability of the purchasing power of money can be affected by inflation, which influences individuals' ability to acquire goods and services (Jacobs et al., 2014).

2.1.3 Unemployment

Unemployment is often defined by the classical economists as the excess supply of labour over the demand for labour which is cause by adjustment in real wage. The Classical or real-wage unemployment occurs when real wages for job are set above the market clearing level, causing number of job-seekers to exceed the number of vacancies. International Labour Organization (2009) viewed as a state of joblessness which occurs when people are without jobs and they have actively sought work within the past four weeks. The unemployment is a measure of the prevalence of unemployment and it is calculated as a percentage by dividing the number of unemployed individuals by individuals currently in the labour force.

According to Jhingan (2003), unemployment can be conceived as the number of people who are unemployed in an economy, often given as a percentage of the labour force. Unemployment is also defined as numbers of people who are willing and able to work as well make themselves available for work at the prevailing wage but no work for them.

2.2 Theoretical Review

While a standard theoretical link between inflation and economic growth seems missing, the relationship between economic growth and unemployment could be prominently traced to Okun's Law. The Law, in the most basic form, advances the argument that growth will cause unemployment to fall and employment to rise (Dayıoğlu & Aydin, 2020). Over the years, this law has been a useful tool for guiding monetary policy as it can be used to forecast or estimate a country's growth rate using the rate of unemployment in the economy. Besides Okun's law, other theories exist in explaining the relationship between inflation, unemployment, and economic growth, including the Monetarist Theory pioneered by Milton (1967). According to the theory, increasing the money supply faster than the economy's growth causes inflation, which is detrimental to economic growth. Interest rate control can be used to affect inflation and economic growth by changing the short-term interest rate set by the Central Bank (Bain and Howells, 2003). However, the effect of monetary policy changes is indirect and effects several channels. Expansionary monetary policy causes real interest rates to fall and investment spending to rise, resulting in an increase in aggregate demand. The rise in aggregate demand leads to an increase in price level economy output. This implies a negative relationship between the interest rate and economic growth and a negative relationship between the interest rate and inflation.

Adam Smith's (1776) classical theory holds that an economy still achieves full employment through the invisible hand, allowing for price, wage, and other input price flexibility. According to the full employment assumption, an increase in Aggregate Demand (AD) as a result of monetary policy adjustments has no effect on output level but results in inflation; thus, inflation and output growth are not correlated. However, Keynes' (1936) Keynesian theory assumes a positive relationship between inflation and economic growth only in the short run. The theory is based on the AD and Aggregate Supply (AS) frameworks, and in the short run, inflation and output are unrelated due to wage and price stickiness. In the long run, inflation and output are unrelated due to full employment, while in the intermediate phase, inflation and output are linked positively due to price and wage flexibility.

2.3 Empirical Review

In the literature, the relation between inflation and economic is not straightforward with findings varying in terms of effect and significance. For instance, Ekpeyong (2023) applied econometrics analysis to estimate the impact of inflation, Unemployment and economic growth on poverty

reduction in Nigeria; finds a positive and negative shock of inflation and unemployment on economic growth but population has a significant impact on poverty. Basher (2022) in autoregressive regressive distributed lag model (ARDL) investigated the effect of inflation on economic growth in Nigeria for the period of 1990-2020. The result reveals that inflation; interest rate and money supply negatively affect economic growth whereas government consumption spending has positive effect on economic growth in Nigeria. In another work by Dodo & Idris (2022) in a nonlinear ARDL estimation approach on the impact of inflation on unemployment in Nigeria for the period of (1985-2019); the findings of the study reveals that inflation exerts negative influence on unemployment. Also; Hjazeen et al (2021) in a study of the nexus between economic growth and unemployment; using the ARDL estimation technique find a negative correlation between economic growth and unemployment.

In a study conducted by Tugba & Yilmaz (2020) on the relationship between economic growth; unemployment; inflation and current account balance applied asymmetric reserve causality test. The study finds a negative relationship between output growth and unemployment. Furthermore, Lyuboslav (2017) on the impact of economic growth on inflation and unemployment in Bulgaria applied standard econometrics to measure the effect of the explanatory variables on unemployment and found positive effects of growth on unemployment but a negative effect of economic growth on unemployment. Ademola et al (2016) determines the effect of inflation; unemployment and economic growth using ordinary least square (OLS) technique found a long run relationship between RGDP; unemployment and inflation. Their result indicates that unemployment and inflation are positively correlated to economic growth. However; their findings are in contradiction to Okun's law of unemployment–output inverse relationship and Phillips hypothesis of negative relationship between inflation and unemployment.

looking at a broad cross section of countries, Motley (1994) found that inflation has a great tendency to slow real growth; while Mandeya and Ho (2021), in a study of the nexus between inflation, inflation uncertainty and economic growth found inflation to affect growth negatively in both the short and long-run. Other studies to also found inflation to have a negative effect on economic growth include De Gregorio (1991), Fisher (1993), Castellet and Domingo (1997), Khan and Senhadji (2001), and Iqbal and Nawaz (2009). Conversely, investigating the impact of inflation on economic growth, Umaru and Zubairu (2012) found inflation to have a positive impact on economic growth in Nigeria. Hodge (2006) documented similar effect for South Africa albeit

for the short run. Also, Mallik and Chowdhury (2001) evidenced that inflation affects growth positively in Bangladesh, India, Pakistan and Sri Lanka.

In conclusion, the empirical literature revealed that, while related studies are in abundance, the findings lack consensus. Beyond that, studies on the relationship between inflation, unemployment and economic growth in Nigeria are seriously lacking. Against this backdrop, by investigating the effect of inflation and unemployment on economic growth in Nigeria, the study seeks to add new knowledge to the debate by bringing onboard the Nigeria case.

3. Methodology

3.1. Theoretical Framework

Along with other economists such as Keynes, Milton Friedman links inflation to monetary factors while others to production functions. The classical economists link changes in monetary demand and supply conditions to inflation, with a unit increase in money supply increases the aggregate price level. The monetary economists consider monetary policy a more effective instrument of economic equilibrium than fiscal policy. Keynesian economists link inflation to demand factors of a surplus in aggregate demand (consumption + investment + government spending) over aggregate supply with a unit increase in wages and prices of products and services, placing a demand on the monetary authorities to increase the money in circulation and support productivity. Economists acknowledge lack of agricultural value chain effect, social and economic infrastructural development, foreign exchange, saving investment gap, economic, political and social imbalances as influencers of inflation, the uneven response of output to investment, money supply and deficit finance (Okoye et al., 2019).

3.2. Model specification

To examine if inflation and unemployment impact on economic growth in Nigeria, the study modifies the model developed by Onwubararir et'al (2021) with modification and inclusion of unemployment rate and trade openness.

GDPPC = f (INF, UNEMPL, GOV, TROP) 1

Where;

GDPPC = Gross Domestic Product Per Capita

INF = Inflation Rate

UMEMPL = Unemployment Rate

GOV = Government Consumption Expenditure

TROP = Trade Openness

f = functional relationship

From equation (1), the formula is further stated in an econometric form as:

$RGDP\text{Pc} = \propto_0 + \propto_1 \text{RGDPPC}_{(-1)} \propto_2 INF + \propto_3 \text{UNEMPL} + \propto_4 \text{GOV} + \propto_5 \text{TROP} + \mu$ 2

Where:

$\text{RGDPPC}_{(-1)}$ = Lagged Dependent Variable

$\propto_0$ = Intercept of relationship in the model

$\propto_1 - \propto_5$ = Coefficients of each independent or explanatory variable

μ = Stochastic or Error term

3.3 Estimation Technique

The estimation technique begins with determining the time series properties of the data and followed by cointegration test. Thereafter, the system estimation was performed using the Generalised Method of Moments (GMM) procedure. The GMM estimation technique is preferred given its inherent ability to produce unbiased estimators even with lagged dependent variables acting as instruments. It is capable of avoiding biased results due to correlation between the error term and the lagged endogenous variables. In addition, it has the potential of obtaining consistent parameter estimates even in the presence of measurement error and endogenous right-hand side variables in a system equation estimation procedure.

3.4. Data Description and Sources

To estimate the model and the statistical significance of the variables that relate to inflation, unemployment and economic growth, this study employed annual time series data from 1999 – 2023. The variables under consideration are: Gross Domestic Product Per Capita (GDPPC) which is a measure for Economic Growth, Inflation Rate (INF), Unemployment Rates (unempl), Government Consumption Expenditure (GOV) and Trade openness (TROP). The variables are obtained from the World Development Indicators online (Word Bank, 2023).

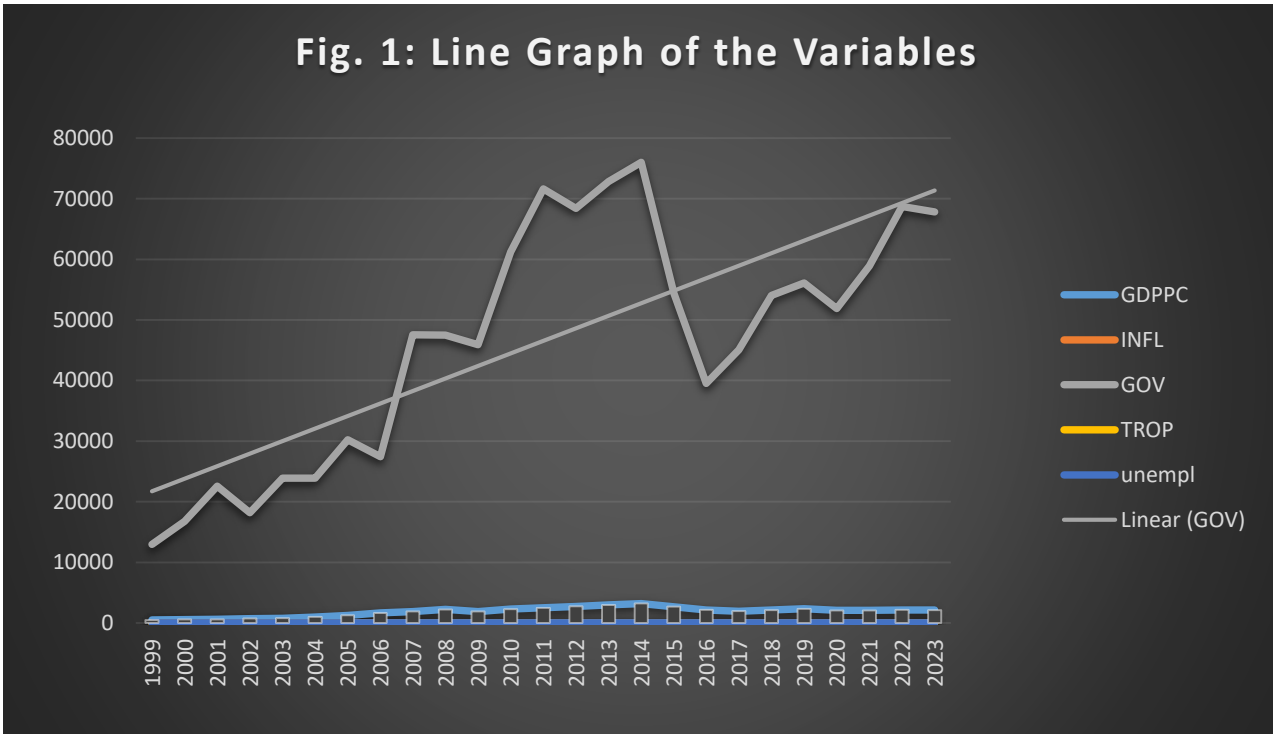
4.1 Data Analysis, Results and Discussion

4.1.1 Preliminary Analysis

Figure 1 shows a line graph for the variables under consideration. GOV was at the lowest point in 1999 while its highest point was in 2014. INF had its lowest and highest points in 2012 and 2021 respectively. TROP was relatively stable within the period of study. GDPPC was always on the

increase, with the highest value in 2019 and GDPPC was stable and accelerated during the period under consideration.

Figure 1: Line Graph showing the relationship between GDPPC AND GOV.



Source: Authors' computation (2024)

4.2. Descriptive Statistics

This shows a summary of statistics: the mean, median, maximum, minimum, standard deviation, kurtosis, and Jarque-Bera values for the variables under consideration. The result of the descriptive statistics is reported in Table 1.

Table 1: Descriptive statistics of variables

	LNGDPPC	INFL	UNEMPL	LNGOV	TROP
Mean	7.453931	12.84535	4.124583	10.68505	0.427147
Median	7.646982	12.70720	3.810000	10.81322	0.421154
Maximum	8.071204	18.87365	5.630000	11.23828	0.536989
Minimum	6.333363	5.388008	3.510000	9.727997	0.349164
Std. Dev.	0.507547	3.877788	0.622394	0.467436	0.052633
Skewness	-1.105535	-0.105541	1.210698	-0.708448	0.293459
Kurtosis	2.975084	2.078104	3.036727	2.202921	1.936843
Jarque-Bera	4.889453	0.894448	5.864504	2.642928	1.474777

Probability	0.086750	0.639401	0.053277	0.266744	0.478362
Sum	178.8943	308.2884	98.99000	256.4413	10.25154
Sum Sq. Dev.	5.924883	345.8566	8.909596	5.025424	0.063714
Observations	24	24	24	24	24

Source: Authors' computation (2024)

The average value of GDPPC, INFL, UNMPL, GOV and TROP are 7.45, 12.85, 4.12, 10.69 and 0.43, respectively. Unemployment has the highest level of discrepancy, as shown in the standard deviation result (3.88). This means that the unemployment rate is more volatile and unpredictable. Skewness is a measure of the rate of asymmetry or discrepancy of the variables. Accordingly, GDPPC, INFL and GOV spending have long left tail. This is because the variables exhibit negative values, while UNEMPL and TROP are positively skewed. Kurtosis measures the peakedness and flatness of the series. The result shows that UNEMPL leptokurtic relative to its normal distribution because its value is greater than 3, while GDPPC, INFL, GOV and TROP are platykurtic because their kurtosis values are lesser than 3. Jarque-Bera statistical test indicates the normally distributed variables as it measures the differences in skewness and kurtosis. The result shows that Jarque-Bera statistic rejects the null hypothesis of no normal distribution for all the variables. Thus, it is concluded that they are all normally distributed.

4.3. Time Series Properties of the Variables

Before the model estimations, unit root tests were carried out on the series to determine their level of stationarity. The result of the stationarity test using the Augmented Dickey-Fuller (ADF) test is reported in Table 2.

Table 2: Unit Root Test using ADF Technique

Statistics	**Statistics at level**		**Statistics at 1st difference**		
Variables	**ADF**	**Critical value @5%**	**ADF**	**Critical value @5%**	**Integration Order**
GDPPC	-2.87	-3.99	-3.16	-2.99	I(1)
INFL	-3.57	-2.99	-3.76	-3.04	I(0)

UNEMPL	-2.60	-3.01	-3.47	-3.02	I(1)
GOV	-1.54	-2.99	-4.23	-2.99	I(1)
TROP	-2.52	-2.99	-5.26	-2.99	I(1)

Source: Authors' computation (2024).

Variables GDPPC, UNEMPL, GOV and TROP were stationary after first differencing, indicating that they are integrated order one. The ADF statistic for gross domestic product per capita (GDPPC) is 2.87 which is less than the critical value of the ADF statistic (3.99) in absolute terms. Furthermore, The ADF statistic for unemployment (UNEMPL), government spending (GOV) and trade openness (TROP) are 2.60, 1.54 and 2.52 which are less than critical value of the ADF statistic 3.01, 2.99 and 2.99 in absolute terms. In addition, The ADF statistic for Inflation rate (INF) is 3.57 (in absolute terms) and is greater than the critical value of the ADF statistic (2.99). This implies that all the variables except INFL were characterized by the presence of unit root at level but were found stationary at their first difference. However, for the first differences of the variables, the ADF test statistic of each of the series is greater than the 5 per cent critical value of the ADF statistic in absolute terms. This implies that all the variables except INFL are 1(1).Since most of the variables follow an I(1) process, the next step is to test if a long run relationship exists among the variables although, doing this using GMM is not necessary.

4.4 Model Estimation Results

Following the existence of long run relationship, the system was estimated using a Generalised Method of Moments (GMM) technique. The result is presented in Table 3.

Table 3: GMM Estimation Results

$Lngdppc_t = 0.64Lngdppc_{(t-1)} - 0.01infl_t - 0.04Unempl_t + 0.30Lngov - 0.42Trop_t$

T-Statistic: (7.04)** (-3.05)** (-1.63)* (4.92)** (-1.02)*

$R^2 = 0.97$, Adj. $R^2 = 96$, DW= 1.99

Instruments: Y_t; y_{t-1}; inf(t-1); unempl(t-1); Constant

*Note: **, *, represent significance at 5% and 1% respectively*

Source: E-Views Output (2024).

The coefficient of multiple determinations (R^2) shows that about 97 percent of the total variation in the dependent variable (GDPPC) is explained by the changes in the explanatory variables (INLF, UNEMPL, GOV and TROP) of the estimated model. This implies that the estimated model has a good log run fit. The adjusted coefficient of determinations (adj. R^2) also shows that the regressors explain over 96 percent of the systematic variation in the dependent variable. Durbin – Watson statistic of 1.99 shows that there is no autocorrelation in the model. The model therefore can be used for policy formulation in the Nigeria economy. The result demonstrates that gross domestic product per capita, is determined by the lag of gross domestic product per capita, inflation, unemployment, government expenditure and trade openness, with either a positive or a negative relationship among the variables.

The result of the GMM estimation shows that inflation has a significant and negative effect on economic growth at 5%. A percentage change in inflation is associated with a 0.01% decrease in economic growth of Nigeria in the short run, at 5% significant level. This finding is not consistent with the one reported in previous studies (Nnachi & Ugochukwu, 2023) and agreed with the finding of Anthony Olugbenga and Oluwabunmi (2020). A negative relationship between inflation and economic growth suggests that as inflation increases, economic growth decreases, and vice versa. This has several economic implications such as reducing Purchasing Power, uncertainty for Businesses, inefficient Resource Allocation, reducing Savings and Potential for Stagflation in the economic growth. Furthermore, inverse relationship between inflation and economic growth may reduce international competitiveness and increasing inequality in an economy.

The results also demonstrate that unemployment a negative and insignificant impact on GDP per capita at 1%. A unit increase in unemployment leads to 0.04% increase in GDP per capita in the short run. This finding is in line with the one reported in previous studies (Nnachi, & Ugochukwu, 2023). A negative relationship between unemployment and economic growth indicates that as unemployment rates decrease, economic growth increases, and vice versa and may have significant economic implications which may include; increased Labour Force Participation, higher aggregate demand, and reduced government spending.

In addition, government expenditures has a significant and positive effect on GDP per capita at 5%. A percentage change in government size leads to 0.30% increase in GDP per capita in the short run. A positive relationship between government expenditures and economic growth suggests that increases in government spending can lead to increases in economic growth. This

can have several economic implications such as multiplier Effect by stimulating additional economic activity and job creation, increasing aggregate demand leading to higher production and economic growth, spurs economic growth crowding through investments that can attract private operators. More so, positive relationship between unemployment and economic growth can lead to job creation, reducing unemployment and increasing labour market participation as well as improving human capital and enhance tax revenue. However, it's important to note that the relationship between government expenditures and economic growth can be complex and dependent on various factors, such as the type and efficiency of spending, the state of the economy, and the level of debt.

The result in Table 3 demonstrates a negative and insignificant relationship between trade openness and economic growth within the period of study. The implications of this in an economy could be reduced economic efficiency, decreased economic output and reduced foreign investment. It's important to note that this finding is not consistent with the ones reported in the previous studies, as the majority of the economic literature suggests that there is a positive relationship between trade openness and economic growth (Ogu & Adagiri, 2020).

4.5 Discussion of Findings

The finding that inflation has a significant and negative effect on economic growth at the 5% significance level suggests that higher inflation rates are associated with lower economic growth. This inverse relationship implies that as inflation increases, the purchasing power of consumers decreases, leading to reduced consumption and investment. Additionally, high inflation creates uncertainty for businesses, discourages long-term investments, and can lead to inefficient resource allocation. Over time, this can reduce savings and potentially lead to stagflation, where high inflation and stagnant economic growth coexist. The negative impact on international competitiveness and increased inequality are also notable implications. In addition, results indicate that unemployment has a negative and insignificant impact on GDP per capita at the 1% significance level. This suggests that changes in unemployment rates do not have a statistically significant effect on GDP per capita in the short run. However, the negative relationship implies that as unemployment decreases, economic growth tends to increase. This can lead to higher labor force participation, increased aggregate demand, and reduced government spending on social welfare programs. Furthermore, the positive and significant effect of government expenditures on

GDP per capita at the 5% significance level indicates that increased government spending can stimulate economic growth. This relationship suggests that government expenditures can have a multiplier effect by boosting economic activity and job creation. Increased government spending can lead to higher aggregate demand, which in turn drives production and economic growth. Additionally, government investments can attract private sector participation, further spurring economic growth. However, the effectiveness of government spending depends on factors such as the type and efficiency of spending, the state of the economy, and the level of public debt. Finally, the negative and insignificant relationship between trade openness and economic growth suggests that, within the period of study, trade openness did not have a significant impact on economic growth. This finding contrasts with the majority of economic literature, which typically finds a positive relationship between trade openness and economic growth. The implications of this result could include reduced economic efficiency, decreased economic output, and lower levels of foreign investment. These findings highlight the complex interplay between various economic factors and underscore the importance of considering multiple dimensions when formulating economic policies.

5 Conclusions and Recommendations

This paper investigates the effect of inflation and unemployment on economic growth in Nigeria. The study utilized Generalised Method of Moments (GMM) and other diagnostic test techniques. The study begins with descriptive statistics of the variables to ensure that they are normally distributed. This is followed by trend analysis on inflation rate in Nigeria from 1980 to 2018, while time series properties of the data were explored using Augmented Dickey-Fuller (ADF) unit root test. The results of unit root test suggest that all the variables in the model are stationary at first difference except inflation and that of Johansen cointegration indicates that there existed 2 cointegrating equation, implying the existence of long run relationship between economic growth, inflation and unemployment. The empirical results revealed that there exists a negative and significant relationship between inflation and the economic growth rate in Nigeria. This finding implies that inflation reduces the growth rate in Nigeria while unemployment has a negative and insignificant effect on economic growth in Nigeria. Furthermore, government expenditure has a positive and significant relationship with economic growth. Hence, it is not a significant variable influencing changes the economic growth rate.

A major policy implication of this result is that concerted effort should be made by policy makers to increase 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 in Nigeria

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