



POLAC INTERNATIONAL JOURNAL OF ECONOMIC AND MGT SCIENCE (PIJEMS)
DEPARTMENT OF ECONOMICS AND MANAGEMENT SCIENCE
NIGERIA POLICE ACADEMY, WUDIL-KANO



EFFECT OF INFLATION ON ECONOMIC GROWTH IN NIGERIA

Salihu Hayatudeen Zummo

Department of Economics, Modibbo Adama University Yola, Adamawa State, Nigeria

Wamanyi Wadasheri

Department of Economics, Modibbo Adama University Yola, Adamawa State, Nigeria

Abstract

The study analysed the effect of inflation on economic growth in Nigeria between 1980-2022. The study employed five (5) macroeconomic variables; economic growth, inflation, core inflation, interest rate and exchange rates. The annual time series data for the variables were obtained from Central Bank Statistical Bulletin. The study made use of descriptive statistics, econometric analytical methods. Using the Auto Regressive Distributed Lag Model (ARDL), specific goals 1, 2 and 3 were achieved. The unit root test was estimated to determine the time series of variables included in the study using both the Augmented Dickey-Fuller (ADF) and the Phillip and Perron (PP) test before the ARDL test was conducted. The outcomes of the ADF and PP revealed all the variables that were not stationary in level form, leading to the first difference test. After the variables had been determined to be stationary at level or first difference. The ARDL models' lag order was predicted using VAR lag order selection criteria that picked lag 2 for the three ARDL models. The cointegration relationship between the variables was determined in each ARDL model using the bound sample strategy after the lag length was selected, which means that there is a long-term connection between the variables. The research then proceeded to assess the long-term and short-term connection between factors using ARDL. The investigation shows no significance for the effect of inflation, core inflation and interest rate but exchange rate shows positively significant effect to economic growth. The study recommends that, it is not a necessary condition for encouraging economic growth to imply that controlling inflation and retaining or raising the interest rate and exchange rate.

Key words: Economic growth, Inflation and Determinant of Economic Growth

JEL CODES: E52, 04

1. Introduction

Inflation is one of macroeconomic variables in an economy and the most feared by the Government, because it influences the structure of production costs, and the level of welfare. The wider effects such as instability of economic growth, the declining of competitiveness, the interest rate, uneven income distribution and unemployment will be increasing.

According Anidiobu, Okolie and Oleka (2018) some of the countries that have experienced hyperinflation

showed that poor inflation would - lead to social and political instability, and economic growth. Maintenance of price stability continues to be overriding objective of monetary policy for most countries in the world today. The emphasis given to price stability in conduct of monetary policy is with a view to promoting sustainable growth and development as well as strengthening the purchasing power of the domestic currency amongst others. To determine the influence of inflation on the economics of Nigeria. The Central Bank of Nigeria (CBN) 2015 employs the monetary targeting

framework in the conduct of its monetary policy. This is based on the assumption of a stable and predictable relationship between money supply and inflation. Consequently, the need to understand the relationship between inflation and economic growth of the Nigerian economy become imperative and the dynamics of inflation became central to the success of monetary policy to ensure the achievement of price stability.

Over the years, the Nigerian Economy has been confronted with problem of controlling inflation to bring a better performance of the economy. Thus, this research is carried out as a result of the instability in price level and the dissatisfying result it has on the growth rate of an economy.

Unlike the salary and wage earners who lose during inflation. It also hinders foreign capital, as the rising costs of materials and other input (i.e. price instability) discourages foreign direct investment, which is a factor of economic growth. Inflation also brings about drastic reduction in purchasing power and balance of payment problem in a country, to investigate the effect of inflation on economic growth in Nigeria.

2. Literature Review

Iyoha (2003), "inflation is a condition of general and persistent rise in prices". Dernberg, P. O and Dougal, M. C (2003) are more explicit when they write that "inflation usually refers to a continuing rise in prices as measured by an index such as the consumer price index". The monetarist essentially believes that the increase in aggregate demand is influenced almost entirely by the amount of money in the economy i.e. the money supply. They argue that inflation in the economy is when the spending power of the population exceeds the capacity of the country to produce goods and services.

From the above numerous definition of inflation, inflation has been properly defined and explained to be the increase in the general price level of goods and services, as a result of too much money chasing fewer goods.

Olu and Idih (2015) investigated the nature of the relationship between inflation and economic growth in Nigeria using annual time series data from 1980 to 2013. The variables used for the study are Gross Domestic Product (GDP) as a dependent variable, while the independent variables are: Inflation rate, Exchange Rate (EXCHR), input of labour and Capital. The study used the Ordinary Least Square to capture the impact of the dependent variable on the independent variables. The result shows that inflation has positive impact on the economic growth in Nigeria. The positive impact of inflation on economic growth is in line with the finding of Aminu and Anono (2012). The major limitation of this study is that it fails to test unit root properties of the series.

Idris and Bakar (2017) explored Nigeria's inflationary trend to determine its impact on economic growth. The study employed a descriptive method and further used charts to show the inflationary trend and GDP growth to better understand how Nigeria's inflation rates affect the desired economic growth level. The study concluded that Nigeria's current inflationary trend negatively affects sustainable growth and development, meaning that one of the requirements for reaching the desired growth level in Nigeria is to control the excessive increase in the inflation rate. Hence, they recommended there is a need to design a suitable framework that will encourage local producers to engage in innovative economic activities as this will create a platform for creativity and manufacturing of commodities with an international competitive advantage. The multiplier effects will undoubtedly increase the export volume of the growing economy, raise productivity level and competitive drives, reduce the exchange rate fluctuation, increase employment creations, raise income growth and economic welfare, and largely the fiscal prudence and macroeconomic growth.

Ezeibekwe (2020) used the vector error correction model to determine how the inflation rate changes affect monetary policy tools' ability to stabilize the Nigerian economy and stimulate investment. The study's result suggested that the impact of the interest

rates on investment depends on the inflation rate level. Also, the size of the effect of interest rates on investment gets weaker as the inflation rate increases suggesting that monetary policy tools like the monetary policy rate (MPR) are robust stabilization tools during periods of declining inflation rates but are not significant during periods of rising inflation rates. The study added that the impact of the money supply target on investment does not depend on the inflation rate level, which suggests that monetary policy tools, such as open market operations, are relevant during economic booms and recessions. The suggested that the Central Bank of Nigeria should deepen the scale, capacity, and efficiency of its open market operations by ensuring that most people can participate with minimal transaction cost and make different financial instruments available. Various studies have been presented on the issue of inflation and growth. The study critically reviewed some of these important empirical studies to develop objectives in the context of Nigeria and, further, to analyze it to draw some important conclusions and policy recommendations.

Musarat et al. (2020) opine that the construction industry plays an essential role in economic growth and that countries' economy depends on several variables in which inflation is one of them as it is retaliating either positively or negatively. Hence, they explored the role of inflation and how it affects the economy and the construction industry. They concluded that the inflation rate is neglected in most construction projects and budgeting, resulting in project cost overruns because building material costs, labour salaries, and equipment hire rates change annually. Their result highlighted a strong relationship between the inflation rate and the construction industry.

2.1 Conceptual Issues

Concept of Inflation: According to Afolabi (1991), "Inflation is used to describe a situation of rapid, persistent and unacceptably high rises in the general price level in an economy, resulting to general loss of purchasing power of the currency".

Inflation has been defined as a persistence rise in the general price level of broad spectrum of goods and services in a country over a long period of time. Inflation has been intrinsically linked to money, as captured by the often-heard maxim inflation is too much money chasing few goods. Inflation has been widely described as an economic situation when the increase in money supply is faster than the new production of goods and services in the same economy. Encyclopedia.

Friedman (1970) considers that "inflation is a condition where there is general excess demand in which too much money is chasing too few goods. Economists usually try to distinguish inflation from an economic phenomenon of a onetime increase in prices or when there are price increases in a narrow group of economic goods or services. Iyoha (2003), "inflation is a condition of general and persistent rise in prices". Dernberg, P. O and Dougal, M. C (2003) are more explicit when they write that "inflation usually refers to a continuing rise in prices as measured by an index such as the consumer price index". The monetarist essentially believes that the increase in aggregate demand is influenced almost entirely by the amount of money in the economy i.e. the money supply. They argue that inflation in the economy is when the spending power of the population exceeds the capacity of the country to produce goods and services.

From the above numerous definition of inflation, inflation has been properly defined and explained to be the increase in the general price level of goods and services, as a result of too much money chasing fewer goods.

Economic Growth: Economic growth is a term that almost everyone is at least familiar with-whether they have studied economics or not. Most people who use the term have a lean idea of what it means, but to an economist, it takes a deeper and more concise meaning.

To an economist, economic growth is the sustained increase in the National Income (NI) or the total output of all goods and services produced in an economy. It is an increase in the capacity of an economy to produce

goods and services, compared from one period of time to another.

Kuznets (1973), a Nobel laureate in economics, defined a country's economic growth as "a long-term rise in capacity to supply increasingly diverse economic goods to its population, this growing capacity based on advancing technology and the institutional and ideological adjustments that it demands". This means that for an economy to achieve growth there should be advancement in technology accompanied by institutional and attitudinal adjustments.

Economic growth according to Todaro and Smith (2006), is the steady process by which the productive capacity of the economy is increased over time to bring about rising levels of national output and income.

2.2 Empirical Review

Bruno and Easterly (1995) address the issue of inflation and growth and find no evidence of any consistent relationship between these variables up to a certain level of inflation. They assess that the growth falls sharply during discrete high inflation crisis, above 40 percent, and recovers after inflation falls. Their empirical analysis shows that there exists a temporal negative relationship between these two variables beyond 40 percent threshold level. They conclude that there is no permanent damage to economic growth due to discrete high inflation crisis.

Sarel (1996) explores the possibility of non-linear effects of inflation on economic growth and finds a significant structural break which occurs at an annual average of 8 percent inflation rate, in the function that relates economic growth to inflation. His results show that below that structural break, inflation has slightly positive effect on growth but after 8 percent inflation rate, it has powerful negative effect on growth. These results have been found by using OLS technique after constructing a joint panel database by collecting annual information of 87 countries for the period 1970-1990.

Using the annual time series data for the period 1971-1995, Khan and Qasim (1996) estimate the key determinants of inflation in Pakistan. They disaggregate

inflation into food and non-food inflation and suggest a strong role of money supply in accelerating inflation in Pakistan. Other factors causing inflation, investigated by the researchers, are currency devaluation, value addition in agriculture sector, support price of wheat, import prices and price of electricity.

2.3 Theoretical Framework

The Classical Theory

Adam Smith and David Ricardo are generally credited as the most influential intellectuals with regard to the invention of economics' classical theory of growth. They suggested that population growth achieves a certain point from where, if growing further, the economy starts decreasing in terms of wealth. The economists supported this by affirming that overpopulation holds no benefit for society. This is further motivated by the concept of limited resources. The scope of the equation speaks to the foundational dilemma of economics: how to satisfy unlimited needs with limited resources. Overpopulation only presents excessive needs, which amplifies the strain on the limited resources. The most important contributions of this theory are found in how it guides governments towards incentivizing investing and rewarding innovative thinking. Thomas Malthus - Classical Growth Theorist.

According to Adam (2004), Classical economists set the groundwork for a number of theories of development. Adam Smith set the basis for the Classical growth model, suggesting a supply side-driven growth model. The classical theory of development claims that economic growth will decline or end due to population growth and restricted resources. Classical economists thought that a temporary rise in real GDP per individual would trigger an explosion in the population, resulting in a reduction in real GDP. Classical development theories did not specifically articulate the connection between the change in price levels (inflation) and its "tax" impacts on profit rates and production. However, it is implicitly suggested that the connection between the two factors is negative, as stated by the decrease in profit rates of

companies through greater salary expenses (Hanif & Gokal, 2004). Economic growth relies on capital stock, labor force, land, and the level of technology in the classical growth theory. While the theory does not explicitly integrate inflation into its model, it assumed inflation would negatively affect development. This is because inflation decreases savings and the process of capital accumulation by speeding up salary expenses due to competition and decreasing the profit of companies (Ashagrie 2015). The classic inflation theory attributes continuous price inflation to excessive development in the circulating amount of cash. For this reason, the classical theory is sometimes referred to as the "cash quantity theory," although it is an inflation theory, not a money theory. In particular, the classical inflation theory describes how the aggregate price level is determined by the interaction between money supply and demand for money (Ireland, 2014). It says that there is a direct percentage of money supply and price level in an economy. That is, there is a comparable change in the price level when there is a change in the money supply. It is also an inflation theory that attributes sustained price inflation to excessive growth in the circulating amount of money (Ireland, 2014). This theory says that there is a direct percentage of money supply and price level in an economy. There is a proportional change in price level and vice versa when there is a change in the supply of cash (Friedman, 2016). It states that changes in the overall price level are mainly determined by changes in the amount of cash in circulation (Totonchi, 2011). This theory describes how an interaction between money supply and demand determines the overall price level (Ireland, 2014). The quantity theory claims that overall prices (P) and complete cash supply (M) are linked according to the equation: where Y -true production and V -cash speed. The quantity theory can be expressed as $p = v + m - y$ lowercases denote percentage change that is growth change, where p is inflation rate and y is output growth rate, v is speed and m is cash inventory. A key hypothesis behind this assertion is that money velocity is continuous and money development has no impact on GDP (Wen, 2006). Most economists accept the hypothesis. However, the theory has been criticized by

Keynesian economists and Monetarist economists. According to them, when prices are sticky, the theory fails in the brief run. In addition, it has been screened that money rates do not remain continuous over time. Despite all this, the theory is highly regarded and used to regulate market inflation (Friedman, 2016). The theory is based on the assumptions that the source of inflation is obtained mainly from the money offer's expansion rate. The theory related inflation and financial development by merely equating total financial expenditure to the total existing quantity of cash (Gokal, Hanif, 2004).

3. Methodology

3.1 Research Design

The researcher used causal design to capture the effect of Inflation on Economic Growth in Nigeria. Causal research design is the type of research design in which there is a dependent variable and independent variables, where by dependent variables response to the changes in independent variables.

3.2 Data and Sources

To ensure reliability of the information resulting from this study, annual time series secondary data was used for this study, which was sourced from the Central Bank of Nigeria (CBN) publication e.i, CBN statistical bulletin, exchange rate, interest rate, inflation rate, core inflation rate, and gross domestic product that is a proxy for economic growth in Nigeria. This will observe the duration of 1980-2022.

3.3 Method of Data Collection

Method of Data Analysis to test the stated hypothesis, the researcher used Descriptive statistics to describe the characteristics or features of a dataset. The term "descriptive statistics" can be used to describe both individual quantitative observations (also known as "summary statistics") as well as the overall process of obtaining insights from these data where employed ARDL model analysis and significance value to test the hypothesis. For easy computation, Exchange rate, Interest rate, Inflation rate, Core inflation rate and

Gross Domestic Product growth rate in the economy will be computed using E-Views 10 and it is justified because the E-Views 10 is quite robust, highly effective and technically efficient as noted by (Lyon 2013).

3.4 Model Specification

The researcher examined the effect of inflation on economic growth in Nigeria. Out of the reviewed models by various authors in the empirical literatures. Therefore, the research adopted the model used by Omoke (2010) with few modifications. In the reviewed model, GDP is the dependent variable while Inflation (INFL) and Interest Rate (INTR) are the independent variables. i.e

$$GDP = F(INFL + INTR, U) \quad (1)$$

The model is specified as thus;

Convert equation to econometric model we have

$$RGDP_t = \beta_0 + \beta_1 INF + \beta_2 INTR + \beta_3 EXCHR + \mu \quad (2)$$

Where RGDP = Real Gross domestic product

INF = Inflation

INTR = Interest Rate

EXCHR = Exchange Rate

U = Error Term

A priori Expectation

$\beta_1, \beta_2, \beta_3 > 0$ and $\beta_4 < 0$. Real GDP, Inflation Rate, Core Inflation Rate and Interest Rate are positive (+), while Exchange Rate is negative (-).

3.5 Method of Data Analysis

Method of Data Analysis to test the stated hypothesis, the researcher used Descriptive statistics to describe the characteristics or features of a dataset. The term “descriptive statistics” can be used to describe both individual quantitative observations (also known as “summary statistics”) as well as the overall process of obtaining insights from these data where employed ARDL model analysis and significance value to test the hypothesis. For easy computation, Exchange rate,

Interest rate, Inflation rate, Core inflation rate and Gross Domestic Product growth rate in the economy will be computed using E-Views 10 and it is justified because the E-Views 10 is quite robust, highly effective and technically efficient as noted by (Lyon 2013).

3.6 Diagnostic Test

The diagnostic test for ARDL model, if you run traditional panel, then the following diagnostic test have to run; Normality test, Multicollinearity test, Heteroskedasticity test and Serial correlation. The test employed the use of E-View statistical software which aided the analysis of the set variables.

4 Results and Discussion

4.1 Descriptive Statistics

Table 1 presents the summary statistics of all the variables used in the study. The average mean for Real Gross Domestic Product (RGDP) 271.0969 while for the maximum and minimum 379.2520 and 199.3110 recorded in the year 1980 to 2022 respectively.

The Standard deviation and probability of Jarque-bera 65.07944 and 0.080510 which means that the data are normally distributed at 5% level of significant. The Skewness value of 0.342288 shown that the data for RGDP is positively skewed and normally distributed.

The average mean for Inflation (INFL) 18.79651, while for the maximum and minimum 72.84 and 5.39 recorded in the year 1980 to 2022 respectively.

The Standard deviation and probability of Jarque-bera 16.3205 and 0.00000 which means that the data are normally distributed at 1% level of significant. The Skewness value of 1.901891 shown that the data for INFL is positively skewed and normally distributed.

Similarly, the average mean for Core Inflation (CINFL) 5.147907, while for the maximum and minimum 19.80000 and 0.001000 recorded in the year 1980 to 2022 respectively.

The Standard deviation and probability of Jarque-bera 6.147965 and 0.086995 which means that the data are

normally distributed at 5% level of significant. The Skewness value of 0.612544 shown that the data for CINFL is positively skewed and normally distributed.

The average mean for Interest Rate (INTR) 0.371860, while for the maximum and minimum 18.18 and -65.86 recorded in the year 1980 to 2022 respectively.

The Standard deviation and probability of Jarque-bera 13.92965 and 0.00000 which means that the data are normally distributed at 1% level of significant. The Skewness value of -2.757476 shown that the data for INTR is negatively skewed and normally distributed.

Exchange Rate (EXCHR) average mean was 112.9837, while for the maximum and minimum 426.000 and 0.5000 recorded in the year 1980 to 2022 respectively.

The Standard deviation and probability of Jarque-bera 119.0604 and 0.017902 which means that the data are normally distributed at 1% level of significant. The Skewness value of 1.050346 shown that the data for EXCHR is positively skewed and normally distributed.

Table 1: Descriptive Statistics

	RGDP	INFL	CINFL	INTR	EXCHR
Mean	271.0969	18.79651	5.147907	0.371860	112.9837
Median	250.5010	12.88000	0.000000	3.020000	111.2000
Maximum	379.2520	72.84000	19.80000	18.18000	426.0000
Minimum	199.3110	5.390000	0.000000	-65.86000	0.500000
Std. Dev.	65.07944	16.32050	6.147965	13.92965	119.0604
Skewness	0.342288	1.901891	0.612544	-2.757476	1.050346
Kurtosis	1.469093	5.555364	1.893198	13.42255	3.278807
Jarque-Bera	5.038743	37.62258	4.883818	249.1209	8.045736
Probability	0.080510	0.000000	0.086995	0.000000	0.017902
Sum	11657.17	808.2500	221.3600	15.99000	4858.300
Sum Sq. Dev.	177884.0	11187.07	1587.494	8149.477	595366.0
Observations	43	43	43	43	43

Source: Researcher's computation using E- view 10

4.2 Unit Root Test Results

The study applied the unit root test techniques to examine the time series of the concerned variables using both Augmented Dickey-Fuller (ADF) test and the Phillip and Perron (PP) test. This is important because most macroeconomics time series show a non-stationary behavior leading to false result of appropriate measures not taken. The ADF and PP results are presented in tables 4.2 reveals that RGDP, INFL and CINFL are stationary at 5% level form and INTR at 1% level form. Only EXCHR is not stationary at level as per Philip and Perron (PP) while Augmented Dickey-Fuller (ADF) reveals that, only INTR and CINFL are stationary at level. There by leading to the test of the

first difference. The time series data is characterized with different orders of integration a mixture of I(0) and I(1). A closer look at table 4.2 shows that in the case of the Augmented Dickey-Fuller (ADF) test, without constant and trend all the variables are stationary at first difference (i.e RGGDP, INFL, CINFL, INTR, EXCHR) since their ADF values (test statistic) is less than the critical values at 5% (percent) for levels and greater than the critical values at 5 percent at first difference implying that they are integrated of order I(0) and I(1). While that of the Phillip and Perron (PP) with constant, with constant and trend and without constant and trend all the variables are stationary at level I(1).

4.3 Diagnostics Test Results

Before discussing the results, various diagnostic checks were conducted to ensure that the estimated model is efficient and consistent. The output from the tests is summarized in Table 4.5. The Breusch- Godfrey serial correlation test shows the absence of serial correlation in the model as clearly indicated by the F-statistics of 0.889296 with a probability value of 0.05537. The Breusch-Pagan- Godfrey test shows the absence of heteroskedasticity in the model as indicated by the F-

statistics of 0.293463 with a probability value of 0.7479. The Ramsey RESET test indicates that the model is correctly specified as shown by the values of the F-statistics of 0.908305 with probability values of 0.3484. Generally, the calculated probability values for all test statistics were found to be greater than 0.05 significant levels. However, they are normally distributed based on the probability value of the Jarque-Bera Statistics 0.080510.

Table 2: Diagnostics Test Results Table

Test	F-statistics	Degree of Freedom	Prob.
Serial Correlation (Breush-Godfrey LM Test)	0.889296	F(10,30)	0.05537
Heteroskedasticity Test (Breush-Pagan Godfrey)	0.293463	F(2,28)	0.7479
Model Specification Test (Ramsey RESET Test)	0.908305	F(1,29)	0.3484
Normality Test (Jarque-Bera Statistics)	5.038743	NA	0.080510

Source: Researcher's computation using E- view 10

5. Conclusion and Recommendations

The study addresses the three primary problems of inflation, core inflation, interest rate and exchange rate on economic growth (gross domestic product). The empirical findings presented in the research suggest the presence of long-term inflation-economic partnership that make a great effort in effect economic growth that is trivial to short-term economic growth that has a comparable effect. The exchange rate has a beneficial and negligible impact on economic growth in Nigeria. The projected inflation-to economic growth relationship does not provide the accurate channel through which inflation effect development. That is the degree of responsiveness of economic growth to inflation, core inflation, interest rate and exchange in Nigeria, the findings further indicate that gross domestic product

have an adverse and insignificant economic connection to Nigeria's economic growth.

The nature of the inflation rate, core inflation rate, interest rate, exchange rate and economic growth relationship in Nigeria. These findings have significant policy consequences for policymakers at home. It is not a necessary condition for encouraging economic growth to imply that controlling inflation and retaining or raising the interest rate and exchange rate. This research only used inflation, core inflation, interest rate and exchange rates as variables influencing Nigeria's true GDP that turned out to be irrelevant in both the brief and long term after inquiry. Further study may therefore add additional variables to determine its effect and meaning. It is possible to extend samples and time scales to improve the accuracy of the results of the study.

References

- Anidiobu, G. A., Okolie, P. I. P., & Oleka, D. C. (2018). Analysis of inflation and its effect on economic growth in Nigeria.
- Iyoha MA, Oyefusi SA, Oriakhi DE (2003). An Introduction to Modern Macroeconomics (Rev. ed). Benin City: Mindex Publishing.
- Aminu U & Anono A, Z (2012). Effect of Inflation on the Growth and Development of the Nigerian Economy (An Empirical Analysis)

- Idris M & Bakar R (2017). The Relationship between Inflation and Economic Growth in Nigeria: A Conceptual Approach
- Al-Taeshi, H. T. A. (2016). The impact of inflation on economic growth: evidence of Malaysia from the period 1970-2014 (*Published Master Thesis Submitted to Near East University Graduate School of Social Sciences Economics Master's Programme*).
- Anochiwa, L. 1., & Maduka, A. (2015). Inflation and economic growth in Nigeria: empirical evidence? *Journal of Economics and Sustainable Development*, 6(20), 113-121.
- Bui H. N. (2019) *The Asymmetric Effect of Inflation on Economic Growth in Vietnam*
- Chude, D. I. & Chude, N. P. (2015). Impact of inflation on economic growth in Nigeria. *International Journal of Business and Management Review*, 3(5), 26-34.
- Colander, D.C. (1995). *Macroeconomic*. Second Edition. United States of America: Richard D. Irwin, Inc.
- Cukierman, A. et al (1992). Measuring the Independence of Central Banks and its Effect on Policy Outcomes. *The World Bank Economic Review*, Vol.6, Number 3.
- Dewett, K. K., & Navalur, M. H. (2010). *Modern economic theory*. Shyam lal charitable trust. Ram Nagar, New Delhi-110 055.
- Dornbusch, R. et al (1996). *Macroeconomic*. Sydney: The McGraw-Hill Companies, Inc.
- Doguwa, S. I. (2013). Inflation and economic growth in Nigeria: Detecting the threshold level. *CBN Journal of Applied Statistics*, 3(2), 99-124.
- Essien, E.A. (2005). 'Exchange Rate Pass-Through to Inflation in Nigeria'. *West African Journal of Monetary and Economic Integration* (First Half), Vol. 5, Number 1, Accra: West African Monetary Institute.
- Echekoba F.N, Adigwe Pi. K., and Amakor I. (2015) *Inflation and Growth in Developing Countries*
- IOSR Journal of Business and Management (IOSR-JBM)*
- Enejoh, S. Y., & Tsauni, A. M. (2017). An analytical study of the impact of inflation on economic growth in Nigeria (1970—2016). *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 7(4), 110-120.
- Eze O. M and Nweke A. M. (2017) Assessment of the Effect of Inflation on Nigeria's Economic Growth *European Journal of Business and Management*.
- Faraji k. and Kenani M. (2012) Impact of Inflation on Economic Growth
- Faria, J, R. and F, G. Carneiro (2001). Does High Inflation Affect Growth in the LongRun and Short Run?, *Journal of Applied Economics*, 4 (1), 89-105.
- Ghosh, A. and P. Steven (1998). *Warning Inflation May Be Harmful to Your Growth*, IMF Staff Papers, 45(4), 672-710.
- Gokal, V. and S. Hanif (2004). *Relationship between Inflation and Economic Growth*, Economics Department, Reserve Bank of Fiji, Suva, Fiji, *Working Paper*2004/04.
- Grilli, V. et al (1991). *Political and Monetary Institutions and Public Financial Politics in the Industrial Countries*". *Economic Policy*, Number 13, pp.341-92.
- Hamilton, A. (2001). "Exploding Inflation". *Zeal Intelligence*.
- Hussain, M. (2005). *Inflation and Growth: Estimation of Threshold Point for Pakistan*. *Pakistan Business Review*, 17(3), 1-15.
- IMF. (1974). *World Economic Outlook: Building Institutions*. International Monetary Fund.
- Umaru, A., & Zubairu, A. A. (2012). Effect of inflation on the growth and development of the Nigerian economy (an empirical analysis). *International Journal of Business and Social Science*, 300), 183-191.