ECONOMIC INDICATORS AND GROWTH OF THE NIGERIAN ECONOMY

AKPARHUERE, GODWIN OGHENEKOHW, Ph.D.
Institution of Affiliation: Department of Accountancy, Enugu State University of Science and Technology, Enugu, Nigeria. Contact: +2348023393951

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ABSTRACT

The main objective of this study was to assess the impact of economic indicators on the economic growth of Nigeria. The specific objectives were to: Ascertain the impact of the balance of trade on Nigeria's economic growth; Verify the impact of taxation on Nigeria's economic growth; Evaluate the effect of consumer prices on Nigeria's economic growth; and investigate the effect of the unemployment rate on Nigeria's economic growth. The study adopted the ex post facto research method and a sample of 10 years was drawn (2013-2022). The data used for the analysis were collected through secondary sources. The method of analysis is the linear regression model whereby the dependent variable was economic growth (proxy by real GDP) while the independent variables were proxy by the balance of trade (BOT), inflation rate (INFL), consumer price index (CPI), and unemployment rate (UR). Findings from the study revealed that: (i) p-value = 0.784 > 0.05, therefore we did not reject hypothesis H1 but concluded that balance of trade has no significant impact on Nigeria's economic growth; ii) p-value = 0.022 < 0.05, hence we rejected H2 and concluded that inflation rate has significant impact on economic growth in Nigeria; iii) p-value 0.000 < 0.05, we did not accept H3 but we concluded that CPI has a significant impact on economic growth in Nigeria; and iv) p-value < 0.002 we did not accept H4 but we concluded that unemployment rate has a significant impact on economic growth in Nigeria. The study recommended that: i) Nigeria should intensify effort to improve on her exports and make it bigger that its imports; ii) The government should address the challenge of the inflation rate in Nigeria by using appropriate fiscal and monetary policies that will address excess liquidity in the system; iii) The high costs or prices of goods should be checked; iv) Government and individual firms should encourage job creation for the teeming youths of this country. The contribution to knowledge is that the concepts of economic indicators and economic growth have been empirically adjudged as useful measures of performance of the Nigerian economy. The study concluded that there is a tendency that some levels of risk in the economy could be reduced when the behaviour of these variables are estimated correctly.

Keywords: Impact, Economic Indicators, Economic Growth, Nigeria.

1.0 INTRODUCTION

1.1 Background of the Study

The economic growth of any nation is usually measured by its economic indicators, such as inflation rate, interest rate, unemployment rate, and GDP growth rate. Others are government...
debt to GDP, balance of trade, and credit rating. They are the barometers by which the performances of many economies are evaluated and sustained.

Economic indicators enable analysts to evaluate the overall health of an economy. The size of the economy changes from time to time given the goods and services produced and consumed by the population. These indicators reflect those changes to track if the economy is growing or contracting over time.

The classification of economic indicators is a very broad spectrum which covers such areas such as trade, taxes, stock markets, consumers, labour and GDP. Other subject areas include health, climate, housing, government, business, consumer price index, money and strength of the currency, UN Comtrade, World Bank, News and Calendar (Trading Economics, 2021).

1.2 Statement of the Problem

The Nigerian economy is estimated to be the biggest in terms of its GDP and capacity in the African sub region. The performance in recent times has continued to dominate the intellectual debates and national discourse, where the opinion of analysts has been that the economy is not stable and judging by the current cost of living it is also believed Nigerians are going through the worst economic history, ever. Previous findings from related studies on this subject matter especially from 2010 till date have either been left unattended to or not well addressed. This calls for very serious concern, and that is what this study is about to investigate.

1.3 Objectives of the Study

The main objective of this study is to determine the impact of economic indicators on the growth of the Nigerian Economy. On the other hand, the specific objectives are to:

i. Ascertain the impact of balance of trade on Nigeria economic growth;
ii. Verify the impact of taxation on Nigeria economic growth;
iii. Evaluate the effect of consumer prices on Nigeria economic growth; and
iv. Investigate the effect of unemployment rate on Nigeria economic growth.

1.4 Research Questions

i. What impact does balance of payment have on Nigeria economic growth?
ii. To what extent does taxation impact Nigeria economic growth?
iii. How do consumer prices index impact Nigeria economic growth?
iv. What is the impact of unemployment rate on Nigeria economic growth?

1.5 Statement of Hypotheses

This statement of hypotheses is in null form:

H1: Balance of payment has no significant impact on Nigeria economic growth.

H2: Tax do not have significant impact on Nigeria economic growth.

H3: Consumer prices do not have significant impact on Nigeria economic growth.
H4: Unemployment rate has no significant impact on Nigeria economic growth

1.6 Significance of the Study

The study is significant to the economy of Nigeria as it will help to understand, evaluate and interpret the use of economic indicators in national statistical system. This will help us to estimate and make decisions and plan economic development.

Researchers are going to benefit from the findings of this study because it will add knowledge to the concept of economic indicators and economic growth in Nigeria. The economic indicators not only help evaluate the health of one economy but also let analysts understand its effect on a global scale. This is what makes studying these determinants even more critical. This study is going to assist governance and add value to general understanding of the workings of the economy.

Analysts are going to have empirical evidence to showcase the importance of economic growth occasioned by economic indicators in Nigeria. This is an avenue to make useful postulations on economic indicators relate to the concept of economic growth.

Investors also, usually focus on these determinants to decide whether it is a good time to invest. Therefore, the study will provide information to investors for more opportunities.

The general public is also going to benefit from this study regarding the general knowledge it will provide through the findings, recommendations and published reports.

1.7 Scope of the Study

This study was carried out in Nigeria, while the period covered is 10 years, i.e. 2013 – 2022.

2.0 LITERATURE REVIEW

2.1 Conceptual Framework

2.1.1 Economic Indicators

World Bank defines Economic Indicators as the measures of macroeconomic performance (gross domestic product [GDP], consumption, investment, and international trade) and stability (central government budgets, prices, the money supply, and the balance of payments).

Team (2023) defined economic indicators as datasets or statistical representations of details that help indicate and assess the economic health of any nation. The author states that knowing about these determinants helps individuals and entities make more informative and wiser investment decisions, given the direction towards which an economy seems to move. These data are collected by government organizations, non-profit firms, or other business intelligence entities through the surveys and research that they conduct from time to time. The economic indicators not only help evaluate the health of one economy but also let analysts understand its effect on a global scale. This is what makes studying these determinants even more critical.

2.1.1.1 Balance of Payments
International Monetary Fund (IMF) defines the balance of payments as a statistical statement that summarizes transactions between residents and nonresidents during a period. It consists of the goods and services account, the primary income account, the secondary income account, the capital account, and the financial account.

In international economics, the balance of payments (also known as balance of international payments and abbreviated BOP or BoP) of a country is the difference between all money flowing into the country in a particular period of time (e.g., a quarter or a year) and the outflow of money to the rest of the world. These financial transactions are made by individuals, firms, and government bodies to compare receipts and payments arising out of trade of goods and services.

The balance of payments consists of two components: the current account and the capital account. The current account reflects a country's net income, while the capital account reflects the net change in ownership of national assets.

2.1.1.2 Inflation Rate

The inflation rate is how much the price of goods and services in an economy has increased in a year. Inflation is an increase in the level of prices of the goods and services that households buy. It is measured as the rate of change of those prices. Typically, prices rise over time, but prices can also fall (a situation called deflation).

2.1.1.3 Consumer Prices Index

Investopedia defines Consumer Price Index (CPI) as an important economic metric that measures the average change in prices paid by consumers over a period of time for a basket of goods.

IMF defines CPI as index numbers that measure changes in the prices of goods and services purchased or otherwise acquired by households, which household use directly, or indirectly to satisfy their own needs and wants.

2.1.1.4 Unemployment Rate

Unemployment rate is the percentage of people in the labour force who are unemployed. Consequently, measuring the unemployment rate requires identifying who is in the labour force. The labour force includes people who are either employed or unemployed.

2.1.2 Economic Growth

This concept is defined by Investopedia dictionary as an increase in the production of goods and services in an economy. Increases in capital goods, labor force, technology, and human capital can all contribute to economic growth.

The Wikipedia defines economic growth as the increase or improvement in the inflation-adjusted market value of the goods and services produced by an economy in a financial year.
Statisticians conventionally measure such growth as the percent rate of increase in the real and nominal growth domestic product (GDP).

Growth is usually calculated in real terms, i.e., inflation-adjusted terms – to eliminate the distorting effect of inflation on the prices of goods produced. Measurement of economic growth uses national income accounting. Since economic growth is measured as the annual percent change of gross domestic product (GDP), it has all the advantages and drawbacks of that measure. The economic growth-rates of countries are commonly compared using the ratio of the GDP to population (per-capita income).

The "rate of economic growth" refers to the geometric annual rate of growth in GDP between the first and the last year over a period of time. This growth rate represents the trend in the average level of GDP over the period, and ignores any fluctuations in the GDP around this trend.

Economists refer to economic growth caused by more efficient use of inputs (increased productivity of labour, of physical capital, of energy or of materials) as intensive growth. In contrast, GDP growth caused only by increases in the amount of inputs available for use (increased population, for example, or new territory) counts as extensive growth.

Development of new goods and services also generates economic growth. As it so happens, in the U.S. about 60% of consumer spending in 2013 went on goods and services that did not exist in 1869.

DFID (2008) explains that economic growth is the most powerful instrument for reducing poverty and improving the quality of life in developing countries. Both cross-country research and country case studies provide overwhelming evidence that rapid and sustained growth is critical to making faster progress towards the Millennium Development Goals.

2.2 Theoretical Framework

The Harrod–Domar Model

This study was anchored on the Harrod–Domar model which is a Keynesian model of economic growth. It is used in development economics to explain an economy’s growth rate in terms of the level of saving and of capital. It suggests that there is no natural reason for an economy to have balanced growth. The model was developed independently by Roy F. Harrod in 1939 and Evsey Domar in 1946, although a similar model had been proposed by Dastav Cassel in 1924. The Harrod–Domar model was the precursor to the exogenous growth model.

Neoclassical economists claimed shortcomings in the Harrod–Domar model—in particular the instability of its solution and, by the late 1950s, started an academic dialogue that led to the development of the Solow-Swan model.

According to the Harrod–Domar model, there are three kinds of growth: warranted growth, actual growth and natural rate of growth.
Warranted growth rate is the rate of growth at which the economy does not expand indefinitely or go into recession. Actual growth is the real rate increase in a country's GDP per year. Natural growth is the growth an economy requires to maintain full employment. For example, if the labour force grows at 3 percent per year, then to maintain full employment, the economy’s annual growth rate must be 3 percent.

The Harrod–Domar model is relevant to this study because it addresses the concept of economic growth from the perspective of real rate increase in the country’s GDP per year.

2.3 Empirical Review

Ajide (2014) investigated the role of Frazer Economic Freedom Index on FDI-growth relationship over the period spanning 1980 through 2010 using annual time series data. A Multivariate Regression approach was employed to estimate augmented growth models. Emanated results show that the same set of variables like labour, life expectancy, degree of openness and economic freedom are factors affecting the level of economic growth in both but at different levels of significance. However, the estimates of disaggregated components of economic freedom data show that the size of government (negative effects) and freedom to trade internationally (positive effects) appear as significant out of five variables making the composite (aggregated) index. The study recommended policy applications, namely, curbing unfettered liberalization in the degree of openness, improving and strengthening of the components of economic freedom index. Specifically, the study suggested reduction in excessive government intervention including more budgetary allocation to be channeled towards health delivery schemes and education promoting activities since the likelihood of elongating life expectancy is in tandem with such exercises.

Kryeziu (2016) discussed the main concepts and trends of the macro-fiscal indicators in economic growth, as well as their importance in the economic development of different countries, with special emphasis in Kosovo. The aim of the paper was to define and explain the connection between macroeconomic indicators with specific emphasis: the public debt, budget deficit and inflation on economic growth. The study was carried out in the period, 2004 to 2014. While the data taken regarding Kosovo were obtained from the year 2005, due to the fact that the earlier data have been limited because of what Kosovo went through. The model that best represents the link between macro-fiscal indicators on economic growth is the linear regression as an econometric model. The overall results show that there is no significant relationship between the explanatory variables and economic growth.

Nyoni and Bonga (2018) systematically explored the determinants of economic growth in Nigeria. Results indicate that the main determinants of economic growth in Nigeria are population growth, inflation, foreign direct investment (FDI), interest rates, exports as well as private and public investment. Attention ought to be made to, basically, all the identified factors, however, the study paid particular attention to the main determinants of economic growth.

Doguwa (2012) re-examined the issue of the existence and the level of inflation threshold in the relationship between inflation and growth in Nigeria, using three different approaches that provide appropriate procedures for estimating the threshold level and inference. While Sarel’s (1996) approach provided a threshold point estimate of 9.9 per cent that was not well identified
by the data, the technique of Khan and Senhadji (2001) identified a 10.5 per cent inflation threshold as statistically significant to explain the inflation-growth nexus in Nigeria. Also, the approach of Drukker et al (2005) suggested a two threshold point model with 11.2 and 12.0 per cent as the appropriate inflation threshold points. These results suggested that the threshold level of inflation above which inflation is inimical to growth is estimated at 10.5 to 12 per cent for Nigeria. Using the estimated two threshold point model, this paper did not find enough reasons to accept the null hypothesis of the super-neutrality of money, and therefore, suggested that there is a threshold level of inflation above which money is not super-neutral.

Umaru and Zubairu (2012) investigated the impact of inflation on economic growth and development in Nigeria between 1970 and 2010 through the application of Augmented Dickey-Fuller technique in testing the unit root property of the series and Granger causality test of causation between GDP and inflation. The results of unit root suggested that all the variables in the model are stationary and the results of causality suggested that GDP causes inflation and not inflation causing GDP. The results also revealed that inflation possessed a positive impact on economic growth through encouraging productivity and output level and on evolution of total factor productivity. A good performance of an economy in terms of per capita growth may therefore be attributed to the rate of inflation in the country. The paper concluded that a major policy implication of this result is that concerted effort should be made by policy makers to increase the level of output in Nigeria by improving productivity/supply in order to reduce the prices of goods and services (inflation) so as to boost the growth of the economy. Inflation can only be reduced to the barest minimum by increasing output level (GDP).

Onwubuariri, Oladeji and Bank-Ola (2021) evaluated the impact of inflation on Nigeria's economic growth for the past four decades, beginning from 1980 to 2019. Inflation rate, interest rate, exchange rate and government expenditure were the independent variables, while the gross domestic product was the dependent variable. Annual time series secondary data covering the period 1980 to 2019 were obtained from the World Development Indicators (WDI) published by the World Bank. Data collected were analyzed using the Autoregressive Distribution Lag (ARDL) model and the Error Correction Model (ECM). Results indicated that inflation has negatively affected economic growth over the years as it reduces competitiveness as well as lowering the purchasing power of money. The study concluded that while inflation and exchange rate negatively impact the Nigerian economy's growth, interest rate maintains a positive relationship. Government consumption proved to be an insignificant factor in the growth of the economy. The study suggested that measures be put in place by the CBN through the Monetary Policy Committee to ensure that the rate of inflation is reduced to the barest minimum.

3.0 METHODOLOGY

3.1 Research Design

The study adopted the ex-post facto research design. This entails the use of data from previous years’ economic activities.

3.2 Sources of Data
The data used for the analysis are from secondary sources. These include journals, annual reports of the Central Bank of Nigeria (CBN), and other relevant publications.

### 3.3 Specification of the Model

The study adopted Multiple Linear Regression model to determine the effect of each of the independent variables on the economic growth of Nigeria. The general format is as stated below:

\[ Y_i = f(X_i) \]

Where \( Y_i \) is the dependent variable (proxy by real GDP) and \( X_i \) is the independent variable (predictor), \( v i = 1, 2, \) and 3.

### 3.5 Description of the Variables in the Model

\( Y_i \) is the proxy for real GDP (to be used for estimation of economic growth) in the \( i \)th year.

\( X_i \) is the proxy for balance of trade (\( X_1 \)), taxes (\( X_2 \)), consumer prices (\( X_3 \)), and unemployment rate (\( X_4 \)) in the \( i \)th year.

### 3.6 Method of Data Analysis

The method of analysis was by use of SPSS and it adopted the use of simple linear equations, tables and other calculations. All the tests of hypotheses used 5% level of significance.

### 4.0 DATA PRESENTATION AND ANALYSIS

#### 4.1 Data Presentation

Table 4.1: Economic Indicators and Real GDP of Nigeria, 2013-2022

<table>
<thead>
<tr>
<th>Year</th>
<th>Dependent Variable (( Y_i )) (Nhr)</th>
<th>Independent Variables (( X_i ))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Nhr)</td>
<td>( X_1 ) (Nhr) | ( X_2 ) (Nhr) | ( X_3 ) % | ( X_4 ) %</td>
</tr>
<tr>
<td>2013</td>
<td>63.843</td>
<td>5.03 | 8.00 | 134.9 | 3.70</td>
</tr>
<tr>
<td>2014</td>
<td>67.977</td>
<td>5.99 | 8.00 | 145.8 | 3.94</td>
</tr>
<tr>
<td>2015</td>
<td>69.781</td>
<td>2.89 | 9.55 | 158.9 | 4.22</td>
</tr>
<tr>
<td>2016</td>
<td>68.652</td>
<td>-290.12 | 15.55 | 183.9 | 4.51</td>
</tr>
<tr>
<td>2017</td>
<td>69.206</td>
<td>4.03 | 11.44 | 214.2 | 4.73</td>
</tr>
<tr>
<td>2018</td>
<td>70.536</td>
<td>5.36 | 15.37 | 240.1 | 4.96</td>
</tr>
<tr>
<td>2019</td>
<td>72.094</td>
<td>2.23 | 11.98 | 267.5 | 5.21</td>
</tr>
<tr>
<td>2020</td>
<td>70.801</td>
<td>-178.25 | 15.75 | 302.9 | 6.00</td>
</tr>
<tr>
<td>2021</td>
<td>73.383</td>
<td>-1.93 | 15.63 | 354.3 | 5.94</td>
</tr>
<tr>
<td>2022</td>
<td>75.769</td>
<td>1.20 | 21.34 | 421.1 | 5.76</td>
</tr>
</tbody>
</table>

Sources:

(1) Dataphyte.com – https://www.dataphyte.com>dailyd...
(2) CBN – https://www.cbngov.ng/ra...

(3) Nigeria Economic Forecast - https://www.focus-econo...

(4) Knoema - https://knoema.com >Economy>C…

Note: - X1 = balance of trade (BOT), Source 1
    X2 = inflation rate, Source 2
    X3 = consumer price index (CPI), Source 4
    X4 = unemployment rate (UR), Source 3
    Yi = Economic Growth rate, measured by GDP at 2010 Constant Market Prices – Source 2.

4.2 Data Analysis

4.2.1. Impact of Balance of Trade on Economic Growth in Nigeria

Hypothesis 1 (Restated)

H1: Balance of Trade has no Significant Impact on Economic Growth in Nigeria

Decision Rule: Accept H1 if p-value > 0.05, otherwise reject it.

Table 4.2: Correlation between Balance of Trade and Real GDP

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.100a</td>
<td>.010</td>
<td>-.114</td>
<td>3.41296</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), BOT

Table 4.2 shows the correlation between balance of trade (BOT) and economic growth during the period under reference. The value of r = 0.100 or 10% and is a very weak correlation. Similarly, the coefficient of correlation is R2 = 0.010, implying that balance of trade was only able to determine only 10% of the variations in economic growth during the period.

Table 4.3: Test of Significance on Hypothesis 1

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.933</td>
<td>1</td>
<td>.933</td>
<td>.080</td>
<td>.784b</td>
</tr>
<tr>
<td>1</td>
<td>Residual</td>
<td>8</td>
<td>11.648</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>94.119</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: RealGDP
b. Predictors: (Constant), BOT
Decision: Since p-value = 0.784 > 0.05, we do not reject the hypothesis but conclude that balance of trade has no significant impact on Nigeria economic growth.

Table 4.4: Regression of Economic Growth on Balance of Trade (BOT)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>70.342</td>
<td>1.184</td>
<td>59.395</td>
</tr>
<tr>
<td></td>
<td>BOT</td>
<td>.003</td>
<td>.011</td>
<td>.100</td>
</tr>
</tbody>
</table>

a. Dependent Variable: RealGDP

Table 4.4 shows the coefficients of the regression model which is fitted as follows:

Yi = 70.342 + 0.003(BOT) + ei

The model shows that balance of trade contributed a constant value of about N70.342trn over the period, which is significant (p-value = 0.000 < 0.05). However, marginal contribution is only 0.003, and had no significant impact on economic growth during the period.

4.2.2 Impact of Inflation Rate on Economic Growth in Nigeria.

Hypothesis 2 (Restated)

H2: Inflation Rate has no Significant Impact on Economic Growth in Nigeria

Decision Rule: Accept H2 if p-value > 0.05, otherwise reject it.

Table 4.5: Correlation between Inflation and Real GDP

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.706*</td>
<td>.499</td>
<td>.436</td>
<td>2.42813</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), INFL

Table 4.5 shows the correlation analysis on inflation rate and real GDP where R = 0.706. It means that there is a high correlation between inflation and real GDP (Economic growth). This was explained by 49.9% (R2 = 0.499), being the coefficient of variation. It implies that inflation rate was responsible for almost 50% of the changes in the economic growth of Nigeria during the period.

Table 4.6: Test of Significance on Hypothesis 2
<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>46.953</td>
<td>1</td>
<td>46.953</td>
<td>7.964</td>
<td>.022b</td>
</tr>
<tr>
<td>1 Residual</td>
<td>47.166</td>
<td>8</td>
<td>5.896</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>94.119</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: RealGDP  
b. Predictors: (Constant), INFL

Decision: P-value = 0.022 < 0.05, hence we reject H2 and conclude that inflation has significant impact on economic growth of Nigeria.

### Table 4.7: Regression of Economic Growth on Inflation Rate

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>63.329</td>
<td>2.554</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>1 INFL</td>
<td>.507</td>
<td>.180</td>
<td>.706</td>
<td>.022</td>
</tr>
</tbody>
</table>

a. Dependent Variable: RealGDP

The regression model for this relationship is presented as follows:

\[ Y_i = 63.329 + 0.507(INFL) + e_i \]

From the model, we say that inflation made an estimated constant contribution of about N63.329trn and a marginal growth of 0.507 to economic growth during the years studied. Both the constant and marginal contributions are significant.

### 4.2. 3 Impact of Consumer Price Index on Economic Growth in Nigeria.

Hypothesis 3 (Restated)

**H3:** Consumer Price Index has no significant impact on economic growth in Nigeria.

Decision Rule: Accept H3 if p-value > 0.05, otherwise reject it.

### Table 4.8: Correlation between Consumer Price Index (CPI)

<table>
<thead>
<tr>
<th>Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
</tbody>
</table>

Table 4.8 reveals that at $R = 0.901$, there is a very strong and positive correlation between consumer price index (CPI) and economic growth in Nigeria. This is buttressed by the coefficient of determination where $R^2 = 0.812$, implying that inflation rate explained 81.2% of the changes in economic growth in Nigeria during the period.

Table 4.9: Test of Significance on Hypothesis 3

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>76.472</td>
<td>1</td>
<td>76.472</td>
<td>34.666</td>
<td>.000a</td>
</tr>
<tr>
<td>1 Residual</td>
<td>17.648</td>
<td>8</td>
<td>2.206</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>94.119</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: RealGDP
b. Predictors: (Constant), CPI

Decision: Since $p$-value $0.000 < 0.05$, we do not accept $H_3$ and we conclude that CPI has significant impact on economic growth in Nigeria.

Table 4.10: Regression of Economic Growth on Consumer Price Index (CPI).

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>62.750</td>
<td>1.350</td>
<td>.901</td>
<td>.000</td>
</tr>
<tr>
<td>1 CPI</td>
<td>.031</td>
<td>.005</td>
<td>5.888</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: RealGDP

Table 4.11: Correlation between Unemployment Rate and Economic Growth

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.840a</td>
<td>.706</td>
<td>.669</td>
<td>1.86062</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), CPI
Table 4.11 reveals that $R = 0.840$ implying that there is a high correlation between unemployment rate and economic growth in Nigeria. On the other hand, $R^2 = 0.706$ or 70.6% is the result of coefficient of determination. At 70.6%, unemployment rate was able to explain the variation in economic growth in Nigeria during the period under study.

**Table 4.12: Test of Significance on Hypothesis 4**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>66.424</td>
<td>1</td>
<td>66.424</td>
<td>19.187</td>
<td>.002b</td>
</tr>
<tr>
<td>1</td>
<td>Residual</td>
<td>8</td>
<td>3.462</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>94.119</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: RealGDP
b. Predictors: (Constant), UR

Decision: The test of significance in table 4.12 reveals that $p$-value = 0.002.

Conclusion: Since $p$-value = 0.002 < 0.05, we do not accept H4 but we conclude that unemployment rate has significant impact on economic growth in Nigeria.

**Table 4.13: Regression of Real GDP on Unemployment Rate**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>54.092</td>
<td>3.725</td>
<td>14.521</td>
</tr>
<tr>
<td></td>
<td>UR</td>
<td>3.290</td>
<td>.751</td>
<td>.840</td>
</tr>
</tbody>
</table>

a. Dependent Variable: RealGDP

When we fit the coefficients on table 4.13 into the regression model, we have the following for prediction of Real GDP in the years ahead.

$Y_i = 54.092 + 3.290(UR_i) + e_i$

The model reveals that there was an estimated constant increase in economic growth of about N54.092trn annually over the years studied occasioned by unemployment rate. At the same time, the country experienced a 3.290 marginal increase in the economic growth due to the contribution of unemployment rate.

**5.0 SUMMARY, CONCLUSION AND RECOMMENDATION**

**5.1 Summary of Findings**

The findings from our study can be summarized as follows:
i) With $p$-value $= 0.784 > 0.05$, we did not reject the hypothesis H1 but concluded that balance of trade has no significant impact on Nigeria economic growth.

ii) Since $p$-value $= 0.022 < 0.05$, we rejected H2 and concluded that inflation rate has significant impact on economic growth in Nigeria.

iii) Since $p$-value $0.000 < 0.05$, we did not accept H3 but we concluded that CPI has significant impact on economic growth in Nigeria.

iv) The estimated $p$-value $= 0.020 < 0.05$, we did not accept H4 but we concluded that unemployment rate has significant impact on economic growth in Nigeria.

5.2 Conclusion

The study of Nigeria economic growth is a contemporary issue that has continued to draw the attention of the government, analysts, scholars, investors, and other users of social and economic statistics for planning and decision-making. For one to understand the performance of the economy, it’s necessary to into consideration economic indicators and be able to weigh them against economic growth. There is tendency that some levels of risk could be reduced when the behaviour of these variables are estimated correctly.

The outcome of this study has proved beyond all reasonable doubt that economic indicators could help to estimate the growth of Nigeria economic. It affirmed that economic indicators have significant impact on growth.

5.3 Recommendations

i) Nigeria should intensify effort to improve on her exports and make it bigger than its imports. It should improve its balance of payment. The Nigerian economy is currently rated as one that depends on high consumption of foreign made goods.

ii) The government should address the challenge of inflation rate in Nigeria by using appropriate fiscal and monetary policies that will address excess liquidity in the system. The amount of cash in circulation should be mopped up. In the long-run, there should increase in productivity and output in the relevant economic sectors.

iii) The high costs or prices of goods should be checked. Goods should be made more affordable for households and families living under harsh economic conditions.

iv) Government and individual firms should encourage job creation for the teeming youths of this country. This will also translate positively to better standard of living for many and crime reduction in the country.

REFERENCES


Investopedia (2023). Economic Indicator: Definition and How to interpretation, available at https://investopedia.com/economic_ind...


