©IDOSR PUBLICATIONS
International Digital Organization for Scientific Research ISSN: 2550-7974
IDOSR JOURNAL OF ARTS AND MANAGEMENTS 2(1): 1-14, 2017.

# EFFECT OF MONEY SUPPLY ON ECONOMIC GROWTH OF NIGERIA

[1]UBESIE MADUBUKO CYRIL AND [2]EMEKA NNAMANI

[1]Department of Accountancy, Enugu State University of Science and technology, Enugu Nigeria

[2]Department of Business Administration, Enugu State University of Science And technology, Enugu Nigeria

## ABSTRACT

This study examines the effect of money supply on economic growth of Nigeria from 1985 to 2013 with concentration on gross domestic product and gross domestic product per capita. The study which applied descriptive statistics for the analysis discovered that in Nigeria, money supply has effect both on Gross domestic product and Gross domestic product per capita which was in line with previous studies results. Consequent upon the findings the study then recommends that the Central Bank of Nigeria (CBN) should apply money supply mechanism to encourage foreign direct investment and also should put in place monetary regulations to control the quantity of money in circulation. It is obvious that when the envisaged measures are put in place the consequent effect of inflation and unemployment in the economy will be adequately checkmated.

**Keywords:** Money supply, Economic growth, Nigeria and Gross domestic product.

## INTRODUCTION

According to Omanukwue (2010), [1], money plays an important role in facilitating business transactions in a modern economy. The second round effects of these on the overall growth and development of the economy is the point where monetary and fiscal policies play their roles. Conceptually, the quantum of money in the economy and its consistency with the absorptive capacity of the economy underpins the essence of monetary policy. In Nigeria, the Central Bank of Nigeria (CBN) is responsible for the design and conduct of monetary policy [1]. The relationship between money supply and economic growth has been receiving increasing attention than any other subject matter in the field of monetary economics in recent years [2 and 3]. Economists differ in their opinion on the effect of money supply on economic growth, while some agreed that variation in the quantity of money is the most important determinant of economic growth, and that countries that devote more time to studying the behaviour aggregate money supply rarely experience much variation in their economic activities [4 and 5]. Others are sceptical about the role of money on gross national income [6]. Evidence in the Nigerian economy has shown that since the 1980's some relationship exist between the stock of money and economic growth or economic activity. Over the years, Nigeria has been controlling her economy through variation in her stock of money. Consequent upon the effect of the collapse of oil price in 1981 various methods of stabilization ranging from fiscal to monetary policies were used.

According to Nwankwoeze (2012), [2], money supply exerts considerable influence on economic activity in both developed and developing economics. Furthermore, he noted that two other issues synonymous with the stock of money supply is the rate of inflation and unemployment level. According to monetarist, Uzougu (1981), [7], an increase in money supply in an economy causes an increase in general price level of commodities which brings about inflationary pressure in the country [7] as cited in [2]. Also related to the issue of inflation is the issue of unemployment which is the primary goal of any economy so as to produce as many goods and services as possible while maintaining an acceptable level of price stability, but this major goal will be very difficult to attain at high inflation rate and price instabilities due to excess money supply in the economy.

## STATEMENT OF THE PROBLEM

For the Central Bank of Nigeria, the primary objective in its conduct of monetary policy is to maintain a stable price level that supports sustainable economic growth and employment Regrettably, achievement of this goal has remained a mirage as the Nigerian economic situation keeps deteriorating. The unemployment rate has reached an alarming and worrisome dimension with attendant social and moral ills such as high rate of kidnapping, raping, armed robbery, militancy and increased agitation.

According to Nwankwoeze (2012), [2], the low level of supply of monetary aggregates in general and money stock in particular has been responsible for the fundamental failure of many African countries to attain growth and development. Various scholars have laid much of the blame for the failure of monetary policies to translate into growth on the government and its agencies as a result of poor implementation and lack of sincerity on the part of policy executors. The problem therefore, should be how to foster economic growth using money supply or put differently how to ensure that the Nigerian monetary policy brings about the expected economic growth with the use of money supply.

An implicit assumption with respect to this choice is that the intermediate target chosen is measurable, controllable and predictable. In addition, it is assumed that the money demand function is stable in the conduct and implementation of monetary policy. This is very important because the money supply is a way of manipulating the interest rate and reserve money for the purpose of controlling the total liquidity in the economy and for controlling inflation rate.

## OBJECTIVES OF THE STUDY

The main objective of this study is to determine the effect of money supply on economic growth of Nigerian economy. The specific objectives are:

- To determine the effect of narrow and broad money supply on real gross domestic product.
- To assess the effect of narrow and broad money supply on gross domestic product per capita.

## RESEARCH QUESTIONS

- What is the effect of narrow and broad money supply on real gross domestic product?
- What is the effect of narrow and broad money supply on gross domestic product per capita?

## STATEMENT OF HYPOTHESES

According to Ibenta (2008), [8], ‘A hypothesis formulation is aimed at identifying a specific problem and how to resolve it. It is a guess on the likely outcome of an investigation’. With this basic guide therefore, the following hypothesis are formulated:-

$H_1$: There is no effect of narrow and broad money supply on real gross domestic product.

$H_2$: There is no effect of narrow and broad money supply on gross domestic product per capita.

## LIMITATION OF THE STUDY

The study is limited to available secondary data from Central Bank of Nigeria (CBN) statistical bulletin 1985 to 2013.

## RESEARCH METHODOLOGY

This chapter shall deal with the research design, duration of the study, sources of data, model specification and econometric methodology used in the study.

## RESEARCH DESIGN

The study made use of ex-post facto research design. According to Kerlinger and Rint (1986), [9], in the context of social science research an ex-post facto investigation seeks to reveal possible relationships by observing an existing condition or state of affairs and searching back in time for plausible contributing factors.

## SOURCES OF DATA

Secondary data were obtained from the Central Bank of Nigeria.

## MODEL SPECIFICATION/ECONOMETRIC METHODOLOGY

Descriptive statistics involve the use of mean, median, maximum and minimum value to evaluate the selected variables. The following measures of descriptive estimates, such as the mean, standard deviation and variance were employed so as to see the degree of variability of these estimates.

### Model 1

$$\text{real gdp} = a_0 + a_1 M_1 + a_2 M_2 + a_3 Inf + a_4 Unemp + a_5 Nexchr + U_i$$

Where real gdp - Real Gross Domestic Product

$M_1$ - Narrow Money Supply

$M_2$ - Broad Money Supply

Inf - Inflation

Unemp - Unemployment

Nexchr - Nominal Exchange Rate

$a_0$, $a_1$, $a_2$, $a_3$, $a_4$ and $a_5$ - Parameters

$U_i$ - Error term

### Model II

gdp per capita = $a_0 + a_1 M_1 + a_2M_2 + a_3Inf + a_4Unemp + a_5Nexchr + U_i$ Where real gdp - Real Gross Domestic Product

$M_1$ - Narrow Money Supply

$M_2$ - Broad Money Supply

Inf - Inflation

Unemp - Unemployment

Nexchr - Nominal Exchange Rate

$a_0$, $a_1$, $a_2$, $a_3$, $a_4$ and $a_5$ - Parameters

$U_i$ - Error term

## PRESENTATION AND ANALYSIS OF DATA

### TABLE 1: DESCRIPTIVE STATISTICS OF SECONDARY DATA

| | M1 | M2 | INFLATION | UNEMPLOYMENT | NOMINAL_EFFECTIVE_EXCHAN |
|---|---|---|---|---|---|
| Mean | 25.64535 | 26.07626 | 20.92089 | 8.710345 | 59.20601 |
| Median | 21.54467 | 22.91948 | 12.16854 | 5.550000 | 77.21021 |
| Maximum | 62.24002 | 57.88222 | 76.75887 | 21.10000 | 107.0665 |
| Minimum | -5.499551 | 1.195470 | 0.223606 | 1.900000 | 0.741667 |
| Std. Dev. | 18.23982 | 15.63400 | 20.20729 | 5.679099 | 42.17007 |
| Skewness | 0.392324 | 0.389456 | 1.452678 | 0.600083 | -0.244082 |
| Kurtosis | 2.256033 | 2.193107 | 3.867929 | 2.103701 | 1.304279 |
| | | | | | |
| Jarque-Bera | 1.412735 | 1.519818 | 11.10989 | 2.711202 | 3.762478 |
| Probability | 0.493433 | 0.467709 | 0.003868 | 0.257792 | 0.152401 |
| | | | | | |
| Sum | 743.7153 | 756.2117 | 606.7058 | 252.6000 | 1716.974 |
| Sum Sq. Dev. | 9315.347 | 6843.818 | 11433.37 | 903.0607 | 49792.82 |
| | | | | | |
| Observati | 29 | 29 | 29 | 29 | 29 |

| | | | | | |
|---|---|---|---|---|---|
| ons | | | | | |

Source: CBN Statistical Bulletin

## TEST OF HYPOTHESES

$H_1$: There is no effect of narrow and broad money supply on real gross domestic product.

Dependent Variable: REAL_GDP1
Method: Least Squares
Date: 08/08/15 Time: 11:08
Sample: 1985 2013
Included observations: 29

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| M1 | 0.164940 | 0.080876 | 2.039413 | 0.0526 |
| M2 | -0.137070 | 0.085256 | -1.607743 | 0.1210 |
| INFLATION | 0.018476 | 0.028462 | 0.649154 | 0.5224 |
| UNEMPLOYMENT | -0.054079 | 0.140356 | -0.385297 | 0.7034 |
| NOMINAL_EFFECTIVE_EXCHAN | 0.071726 | 0.018062 | 3.971173 | 0.0006 |

| | | | |
|---|---|---|---|
| R-squared | 0.333367 | Mean dependent var | 5.102927 |
| Adjusted R-squared | 0.222261 | S.D. dependent var | 3.167998 |
| S.E. of regression | 2.793842 | Akaike info criterion | 5.048298 |
| Sum squared resid | 187.3332 | Schwarz criterion | 5.284038 |

| | | | |
|---|---|---|---|
| Log likelihood | -68.20032 | Hannan-Quinn criter. | 5.122129 |
| Durbin-Watson stat | 1.416445 | | |

Source: *Eviews 7*

Estimation Equation:

=========================

REAL_GDP1 = C(1)*M1 + C(2)*M2 + C(3)*INFLATION + C(4)*UNEMPLOYMENT + C(5)*NOMINAL_EFFECTIVE_EXCHAN

Substituted Coefficients:

=========================

REAL_GDP1 = 0.164940484188*M1 - 0.137070430402*M2 + 0.0184762582098*INFLATION - 0.0540787798498*UNEMPLOYMENT + 0.0717256087602*NOMINAL_EFFECTIVE_EXCHAN

$H_2$: There is no effect of narrow and broad money supply on gross domestic product per capita.

| | | | | |
|---|---|---|---|---|
| Dependent Variable: GDP_PER_CAPITA | | | | |
| Method: Least Squares | | | | |
| Date: 08/08/15 Time: 11:15 | | | | |
| Sample: 1985 2013 | | | | |
| Included observations: 29 | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| M1 | -6.394983 | 19.47080 | -0.328440 | 0.7454 |
| M2 | 1.821366 | 20.52527 | 0.088738 | 0.9300 |
| INFLATION | 8.641501 | 6.852174 | 1.261133 | 0.2194 |
| UNEMPLOYMENT | -50.29194 | 33.79035 | -1.488352 | 0.1497 |
| NOMINAL_EFFECTIVE_EXCHAN | 18.98446 | 4.348277 | 4.365974 | 0.0002 |
| R-squared | 0.428962 | Mean dependent var | | 769.9517 |
| Adjusted R-squared | 0.333789 | S.D. dependent var | | 824.0579 |
| S.E. of regression | 672.6104 | Akaike info criterion | | 16.01580 |
| Sum squared resid | 10857713 | Schwarz criterion | | 16.25154 |

| | | | |
|---|---|---|---|
| Log likelihood | -227.2290 | Hannan-Quinn criter. | 16.08963 |
| Durbin-Watson stat | 0.496824 | | |

Source: *E views 7*

Estimation Equation:

=========================

GDP_PER_CAPITA = C(1)*M1 + C(2)*M2 + C(3)*INFLATION + C(4)*UNEMPLOYMENT + C(5)*NOMINAL_EFFECTIVE_EXCHAN

Substituted Coefficients:

=========================

GDP_PER_CAPITA = -6.39498284642*M1 + 1.82136581472*M2 + 8.64150108968*INFLATION - 50.2919404555*UNEMPLOYMENT + 18.9844646569*NOMINAL_EFFECTIVE_EXCHANGE

## SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

### SUMMARY OF FINDINGS

- That narrow and broad money supply has effect on real gross domestic product.
- That narrow and broad money supply has effect on gross domestic product per capita.

### CONCLUSION

This study was set out to show the effect of money supply on economic growth of Nigeria. Using the method of Ordinary Least Squares (OLS) on secondary data over the period 1985 to 2013, the result from this study shows that both narrow and broad money supply had significant effects on real gross domestic product and gross domestic product per capita.

## RECOMMENDATIONS

- The Central Bank of Nigeria is encouraged to devise sustainable measures for regulating the quantity of money in circulation, in other to mitigate the consequent effects of inflation and unemployment in the economy; and,
- The use of money supply mechanism to encourage foreign direct investment is also advised in other to boost the level of development of the Nigerian economy.

## REFERENCES


1. Omanukwue, P. N. (2010). The Quantity Theory of Money: Evidence from Nigeria. *Economic and Financial Review*, *48*(2), 91–107.
2. Akinbobola, T. O. (2012). The dynamics of money supply, exchange rate and inflation in Nigeria. *Journal of Applied Finance & Banking*, *2*(4), 117–141.
3. OwolabI A, U., Adejare, A. T., & others. (2014). Money Supply, Foreign Exchange Regimes and Economic Growth in Nigeria. *Research Journal of Finance and Accounting*, *5*(8), 121–129.
4. Onayemi, S. O. (2013). Price Stability effect of Monetary Policy and Output Growth in Nigeria: A Time Series Analysis. *Journal of African Macroeconomic Review Vol*, *4*(1). Retrieved from http://www.journalsbank.com/jamr_4_2.pdf
5. Bakare, A. S. (2011). An empirical study of the determinants of money supply growth and its effects on inflation rate in Nigeria. *Journal of Research in International Business and Management (ISSN: 2251-0028) Vol*, *1*(5), 124–129.

6. Musa, Y., Usman, U., & Zoramawa, A. B. (n.d.). Relationship between Money Supply and Government Revenues in Nigeria. *CBN Journal of Applied Statistics*, 117.
7. Ibenta, S.N.O (2012). Research Monograph, Guidelines for Seminars Paper Theses and Project Reports. *Akwa, Laity Press.* Monetary_Policy_And_Economic_Growth_Of_Nigeria.doc. (n.d.).
8. Ogunmuyiwa, M. S., & Ekone, A. F. (2010). Money supply-Economic growth nexus in Nigeria. *J Soc Sci*, *22*(3), 199–204.
9. Umaru, A., & ZubairU, A. A. (2012). An empirical Analysis of The Relationship between Unemployment and Inflation in Nigeria from 1977-2009. Retrieved from http://www.businessjournalz.org/articlepdf/EFR_11203mar2012u1.pdf