

Inflation, Savings and Output in Nigeria: A Var Approach

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Abstract

This study investigates the relationship between Inflation, Savings and Output in Nigeria, employing Vector Autoregression (VAR) approach. VAR is an active systems of models in which the current level of each endogenous variable in the system depends on past movements of all variables and it determines how much influence each of the endogenous variable have on each other. Ordinary Least Square and Granger causality tests were also conducted along side VAR to augment findings and show robustness of results. Using Time-series data for 1970 to 2010 sourced from Central Bank of Nigeria (CBN) Statistical bulletins for 2007 and 2010 and Annual report for 2010, we estimated VAR models to determine the inter-relationship between the endogenous variables. Generally, the empirical results were impressive. The OLS result indicates that over 90 percent of the variations in Output for the estimation period were captured by the explanatory variables. Each of the individual coefficients of the explanatory variables also show the expected a priori signs suggesting that while Inflation tends to reduce Output, Savings actually stimulates Output. Essentially, the Granger causality test shows that changes in Inflation may not have stimulated nor sufficiently responded to Output growth or Savings in Nigeria over the period of analysis. On the other hand, changes in Savings effectively stimulate Output and Output also critically cause movements in Savings in Nigeria. The VAR results affirmed that Output changes respond more critically to Savings changes than Inflation changes, suggesting that boosting private Savings will effectively stimulate Output in the Nigerian economy. The empirical evidence obtained in the study may have provided some useful hints on the behaviours or cause-effect relationship between Inflation, private Savings and Output (GDP) in the Nigerian economy. Inferences drawn have implications for all stakeholders in the economy and are particularly useful to monetary authorities and regulators, practitioners and market-players.

Keywords: inflation, savings, output, Nigeria, vector autoregression (VAR).

INTRODUCTION

One of the fundamental macroeconomic variables found in every nation's economy, though at different levels or degrees, is Inflation. Inflation is defined as the continuous and sustained rise in general price level of goods and services in a nation's economy. It refers to a situation where the volume of money chasing the available goods and services in an economy is too much, consequently resulting in a persistent rise in general price level. From theoretical literatures, it is a generally accepted phenomenon that high Inflation in an economy has dire consequences and particularly on the stability of prices of goods and services. Unless there is a corresponding rise in income level, Savings, the major source of capital accumulation of households and entrepreneurs will be seriously depleted. For this reason, stakeholders in the economy which include regulatory agencies and policy makers are concerned about the costs and consequences of high inflation. Gokal and Hanif

(2004) argued that Inflation may also reduce a country's international competitiveness by making its exports relatively more expensive, thus impacting on the balance of payments. From the oil boom era of 1970s in Nigeria, persistent inflationary pressures have exerted overwhelming effects in the economy and various measures ranging from price control, wage freezes to implementation of monetary and fiscal policies have been employed by monetary authorities to tackle inflation. Orubu, (2009) posits that since the late 1990s, the Central Bank of Nigeria (CBN) has focused more on monetary policy to combat Inflation in Nigeria.

Succinctly, Savings may be defined as after tax income not spent. It may rightly be referred to or presumed 'deferred consumption', being income left over for future consumption on capital investment or for precautionary and speculative motives. Concisely, Savings is summed as 'disposable income less

consumption'. In developing countries and Nigeria in particular, private Savings constitutes the main source of capital accumulation for investment purposes. From theoretical literatures, total Savings of households, entrepreneurs and corporate entities in an economy has positive correlation with Output. Amongst other things, Savings serve as the main source of financing investment and related economic activities. According to Kriekhaus (2002), a higher level of national Savings leads to higher investment and consequently higher Output. This is so because the level of Savings determines the magnitude of capital accumulation. On the other hand, the magnitude of total earnings depends on the level of total Output, thus Output also determines the level of Savings (capital accumulation) and investments by households and entrepreneurs. This means that a change in the level of Savings will systematically cause a change in capital accumulation (capital stock) and consequently a change in Output.

Output is the total value of all goods and services produced in a country at a given period of time. Blanchard (2011), opined that Output can be measured as total income, or it can be viewed from the productive side and measured as the total value of final goods and services or the sum of all value added in the economy. As a macroeconomic concept, Output is measured by Gross Domestic Product (GDP).

STATEMENT OF THE PROBLEM

From the foregoing, there seems to exist some sort of interactions between Inflation, Saving and Output in every economy and in Nigeria, the focal point in this study. Thus, the study seeks to explore the inter-relationship between Inflation, Savings and Output in Nigeria using a Vector Autoregression (VAR) approach. It aims at using the movement of the endogenous variables within the VAR system to determine their relationship as compared to theoretical concepts.

LIMITATION OF STUDY

The study of this nature has implications for global economy because in the economy of every country of the world, there are interplay of macroeconomics aggregates such as Inflation, Savings and Output at different levels or degrees. However, this study is limited to the Nigerian economy as data employed in our VAR estimations sourced from the Statistical Bulletin and Annual Report of the Central Bank of Nigeria (CBN) relate specifically to the economy of Nigeria alone.

LITERATURE REVIEW

Globally, Inflation is one of the most fundamental macroeconomic variables that transcend the economies of both the developed and developing countries of the world. Owing to its consequences, it

is a concept that attracts the attention of stakeholders in an economy and regulatory authorities in particular. In order to stabilize the prices of goods and services, encourage private Savings aimed at boosting investments in an attempt to improve Output, monetary authorities usually find themselves adopting inflation targeting policies. Using 2010 as benchmark to survey trends in the global markets, Central Bank of Nigeria Annual Report for 2010 (CBNAR, (2010) posits that consumer prices rose generally especially for food and oil prices. According to the report, in advanced economies such as that of the United State, Japan, UK et cetera, inflation averaged 1.1 percent compared with 0.7 percent in 2009 and in Euro areas, it averaged 1.6 percent against 0.3 percent in 2009. Countries in the Western Hemisphere such as Venezuela, Argentina et cetera had an average inflation rate of 6.8 percent against 5.0 percent and in the emerging market economies and developing countries, inflation rose by one percent to 6.2 percent relative to rate in 2009. However, the report affirmed that the economies of developing Asia enjoyed a strong rebound of 8.2 percent in 2010 due to significant growth in trade driven by the large manufacturing sector.

From theoretical literatures, one of the primary goals of inflation targeting policies in an economy is to ultimately improve a country's international competitiveness in terms of Output (Gross Domestic Product (GDP)) growth. On global Output CBNAR, (2010) contends that global output which contracted in 2009 resumed growth in 2010, although with uncertainties about its sustainability in the world biggest markets, namely, the United State, Europe and China. This trend from the view of CBN is due to higher performance in many emerging economies, strong domestic demand in developing countries as well as the combined effects of fiscal and monetary interventions adopted in the advanced economies. An outlook of global changes in world Output and prices for the period 2006 to 2010 is shown in table 1.

There is a consensus in theoretical literatures that moderate inflation could reasonably impact positively on an economy generally. Orubu (2009) argued that moderate inflation can increase the level of investments leading to a faster overall growth in the economy. This consensus reasoning emanates from the fact that inflation, moderate or not, tends to lower the value of returns on monetary assets, particularly cash assets that satisfied the M1 definition of money and this explains the preference of investors shifting their investment to real capital projects rather than holding their assets in cash susceptible to inflation. Of cause, this refers to the concept of Tobin's effect which according to Gokal and Hanif (2004) suggests that inflation causes individuals and entrepreneurs to substitute out money into interest earning assets.

Table 1: Changes in World Output and Prices (Percent) 2006 to 2010.

Region/Countries	OUTPUT					CONSUMER PRICES				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Advanced Economies	3	2.7	0.2	-3.4	3	2.2	2.3	2	0.7	1.1
United States	2.7	1.9	-	-2.6	2.8	3.3	2.9	2.2	0.9	0.9
Japan	2	2.4	-1.2	-6.3	4.3	-0.9	-0.7	-0.8	-0.9	-2.1
European Union	3.5	3.2	0.8	-4.1	1.8	2.3	2.4	3.7	0.9	1.9
Germany	3.4	2.7	1	-4.7	3.6	1.8	2.3	2.8	0.2	1.3
France	2.4	2.3	0.1	-2.5	1.6	1.9	1.6	3.2	0.1	1.6
Italy	2	1.5	-1.3	-5	1	2.2	2	3.5	0.8	1.6
United Kingdom	2.8	2.7	-0.1	-4.9	1.7	2.3	2.3	3.6	2.1	3.1
Euro Area	3	2.9	0.5	-4.1	1.8	2.2	2.1	3.3	0.3	1.6
Other Advanced Economies	3.9	4	1	-1.2	5.6	2.2	2.7	3.1	0.8	2.7
New industrialized Asian Economies	5.9	5.8	1.8	-0.9	8.2	1.6	2.2	4.5	1.3	2.6
Other emerging Markets & Developing Countries	8.2	8.7	6	-2.6	7.1	5.6	6.5	9.2	5.2	6.2
Regional Groups										
Central & Eastern Europe	6.5	5.5	3	-3.6	4.2	5.9	6	8.1	4.7	5.2
Russia	8.2	8.5	5.2	-7.9	3.7	9.7	9	14.1	11.7	6.6
Africa	6.4	7	5.5	2.8	5	6.9	6.9	11.7	10.4	7.5
Asia	10.4	11.4	7.7	7	9.3	4.2	5.4	7.5	3.1	6.1
Middle East	5.8	6	5	1.8	3.9	7.5	10	13.5	6.7	6.8
Western Hemispheres	5.5	5.6	4.6	-1.7	5.7	5.3	5.4	7.9	5	6.8
China	12.7	14.2	9.6	9.2	10.3	1.5	4.8	5.9	-0.7	3.5

Source: CBN Annual Report 2010 P46 , (Culled from World Economic Outlook, January.2011).

The fact of the argument is that viable investments in capital projects or interest earning assets motivate and intensify greater capital appropriations, leading to increase in Output and an enhanced growth in the economy. In this sense, consensus exists in economic theories that moderate inflation exhibits a positive inter-relationship to output growth and hence economic growth.

However, consensus also exist in theoretical literatures that the economic trends with high inflation are different. High inflation resulting from rising and unstable prices exerts pressure on the economy and this could reasonably and effectively affect the overall propensity of households and entrepreneurs to save. In effect, high inflation does impact negatively on capital accumulation and consequently on investments. It is obvious that high inflation lowers real wages and the value of returns on investment, particularly where nominal wages remain constant. It also leads to uncertainty in future earnings from investment and production. High inflation erodes the purchasing power of money balance and depreciates in value capital for investment thus compelling investors, entrepreneurs and households to reduce their economic activities and consequently, the level of output falls.

The argument against high inflation appeared controversial as some theoretical literatures express the view that high inflation rate may grow simultaneously with Output (Gross Domestic Products), though, this lies critically on condition that more goods and services are actually produced and exchanged in the economy, rather than increasing prices for the same goods and services. While this

view may hold true for demand-push inflation, Larry, (2006) contends that in cost-push inflation that view does not hold true because cost-push inflation may have been initiated (imported) by an external shock. For example, a rise in oil prices in international market may lead to general price increase in the prices of all goods that use oil as raw material, thus increasing the cost of production. It could therefore be inferred that high inflation reduces a nation's international competitiveness by making its goods relatively more expensive than those of other nations. Obviously, an increase in inflation rate may lead to an increase in the nominal value (the amount reflecting production quantities and prices) of Output but may or may not cause a rise in real Output (the amount in different years reflecting only changes in quantities).

Again, the view of some economic scholars is that the relationship between Inflation and Output may not be too direct. Shoaib (2006) posits that the rate of Inflation has a bearing on the market rate of interest. It is argued that a higher rate of Inflation forces Central Banks to raise interest rates and this increases the cost of credit for economic units generally and for the manufacturing industry in particular; resultantly, their margins are squeezed. Assuming the Inflation is cost-push, in the absence of adequate demand, investors and producers may end up lowering their investments and production respectively. Empirical studies on the relationship between inflation and savings have also re-affirmed that high Inflation impacts on private Savings negatively, that inflation is negatively correlated to the real value of household's net-worth. Fama (1981) revealed that the real national income (Output) and Inflation are

negatively correlated. In his working paper No 11-81 at White Center for Financial Research, The University of Pennsylvania, USA, Friend contends that a more plausible argument might be that high inflation facilitates the transfer of resources from the private sector which has a higher propensity to save to the government sector because Inflation makes it easier for government to increase effective tax rate and thus served to depress over-all Savings/Income ratio. Based on theoretical and empirical studies, it may be concluded that the impact of Inflation on Output depends on the magnitude of Inflation (moderate or high) and on the type of inflation (cost-push or demand-push) in the market place.

The relationship between domestic Savings and Output is explained from the perspective that Savings is the primary source of capital accumulation particularly for households and entrepreneurs whose roles in an economy cannot be over-emphasized. The so-called economic break-through of Japan referred to as 'Japanese miracle' emanates from the micro-activities of households and entrepreneurs. We deduce from theoretical literatures, that the higher the level of Savings, the higher the level of investments and so the higher the Output. Jappelli and Pagano (1994) conducted an empirical estimation using ordinary Least Square (OLS) on some data and summed up that a higher savings rate to GDP leads to economic growth, evidencing the fact that Savings is positively correlated to Output. On the other hand, Quijano and Quijano (2003) opined that the amount of capital determines the amount of Output being produced; and in like manner, the amount of Output determines the amount of Savings and investments and so the amount of capital accumulated. Presently, Savings and Investments have become prime macro-economic variables particularly in emerging markets. The domestic Savings rate is a vital indicator or parameter of economic development as there is a positive correlation between domestic Savings rate and Investment rates. Both Savings and Investment rates are determining factors in the capacity of banks to lend to boost Output levels in the economy.

METHODOLOGY

Variables, Data and Analytical Tool

Overtimes, the Nigerian economic system or economy to be precise, has witnessed several policy regimes under both military and democratic governance. The study seeks to investigate the interrelationship between macro economic variables such as Inflation rates, the measure of inflationary trends in the economy, Total private Savings, the basic source of capital accumulation for investments and economic activities and Output measured as Gross Domestic Product (GDP) for the period 1970 to 2010 using the VAR approach. Thus, the variables used for our estimations include: Inflation Rate expressed in percentages, Total Savings and Output

(GDP) for the said period of forty years under review. The empirical estimation attempts to capture the structural and dynamic interactions of these economic variables.

The data are secondary data sourced from the official publications and reports of the Central Bank of Nigeria (CBN) namely, 2007 and 2010 Statistical Bulletin and 2010 Annual report. The data are annual data covering the period 1970 to 2010 for all variables used for the empirical estimation. The primary analytical tool used for the estimation is Vector Autoregression (VAR) model which is believed to be the most successful, conciliatory and easy to use model for multivariate time series analysis. Other models employed in this study to show the robustness of the results and findings include the Ordinary Least Square (OLS) model and the Granger Causality (GC) test. In our empirical analysis however, we begin with OLS results, followed by Granger causality test before proceeding to the VAR model in order to provide a rich pattern to the empirical investigation.

The VAR Model Specification

Again, the primary analytical tool used for this study is Vector Autoregression (VAR) model. Basically, it is a dynamic system of equations that examine the impact of shocks or interactions between economic variables. VAR provides adequate statistical representations of the impact of shocks or past interactions between economic variables. In other terms, how changes in Inflation rates impact on Savings and Output. Usually, VAR are used for forecasting and for investigating the effect of shocks on a system of economic variables, particularly where the endogenous variables within the VAR system are viewed as reflecting the effect of exogenous shocks. Generally, the VAR model is represented by the following equation.

$$Y_t = A_1 Y_{t-1} + A_2 Y_{t-2} + \dots + A_p Y_{t-p} + \varepsilon_t \quad (1)$$

Where: Y_t = Vector of endogenous variables at time t

$A_{i(i=1,2,\dots,p)}$ = (n x n) coefficient matrices describing the relationships among the endogenous and exogenous variables

ε_t = Vector of residuals or random disturbances which represent the unexpected movements in the variable.

The above equation (1) may be re-written in a more compact form using the lag operator (L) as proposed by Sims (1980) as follows.

$$Y_t = A(L)Y_{t-1} + \varepsilon_t \quad (2)$$

$A(L)$ represents the matrix of coefficients to be estimated. According to the Economic Models at the Bank of England, the VAR approach views

movements in the endogenous variables as fundamentally reflecting the effect of exogenous shocks hitting the economy. We deduce the model for this study from the above equations incorporating Output (rGDP_t), Inflation (I_t) and Savings (S_t) to capture the dynamic interactions between the variables. This is represented as follows:

$$A_t = (rGDP_t; I_t; S_t) \quad (3)$$

In matrix form, the above equation may be represented as follows:

$$\begin{bmatrix} 1 & 0 & 0 \\ a_{21} & 1 & 0 \\ a_{31} & a_{32} & 1 \end{bmatrix} \begin{bmatrix} rGDP \\ I \\ S \end{bmatrix} = A(L) \begin{bmatrix} rGDP \\ I \\ S \end{bmatrix} + \begin{bmatrix} \varepsilon rGDP \\ \varepsilon I \\ \varepsilon S \end{bmatrix}$$

Where: $\varepsilon rGDP$, εI and εS are the structural disturbances on output (real Gross Domestic Product).

EMPIRICAL ANALYSIS

Three analyses are conducted including the OLS estimation, Granger Causality test and the VAR results.

Ordinary Least Square (OLS) Results

The results of the OLS estimation are quite impressive. The coefficient of determination is high at 0.905. This indicates that over 90 percent of the variations in output for the estimation period were captured by the explanatory variables. The model also has high overall significance. With an F-statistic value of 152.3, we cannot reject the hypothesis of a significant relationship existing between output (GDP) and the two independent variables combined. Table 1 shows the OLS results.

Table 1: The Ordinary Least Square Results

Variable	Coefficient
t-Statistics	
Constant (C)	1489682
1.922	
INF	-20635.9
-0.712	
SAV	5.121
16.990	
R-squared = 0.905; Adjusted R-squared = 0.899;	
F-statistics = 152.3; DW = 0.52	

Source: OLS Estimation; 2012

A close examination of the individual coefficients of the explanatory variables shows each has the expected a priori sign, thus suggesting that while inflation tends to reduce output, savings actually stimulates output. However, the coefficient of inflation is not significant in the model. It failed the 5 percent significant test and thus indicates that inflation is not a potent factor in predicting output levels in Nigeria. On the other hand, savings coefficient is highly significant even at the 1 percent level. This implies that savings is critical in promoting output in Nigeria. Improving the saving capacity in the economy can lead to significant boost in output in the long run.

The Granger Causality Result

In the Granger Causality test, we observed the direction of cause-effect relationship among the variables in the analysis by considering the F-statistics in the result. This provides the basis for determining which variable provide the lead for responses by other variables. The Granger causality test results are presented in the table below. A significant F-statistic value implies that the stated null hypothesis is to be rejected and the alternative accepted.

Table 2: Granger Causality Testing.

Null Hypothesis	F-value
Decision Causality	
INF does not Granger cause GDP	0.049
Accept	
GDP does not Granger cause INF	1.022
Accept	
SAV does not Granger cause GDP	10.656
Reject	
GDP does not Granger cause SAV	35.498
Reject	
SAV does not Granger cause INF	0.659
Accept	
INF does not Granger cause SAV	0.253
Accept	
None	

Source: Granger Causality Estimations; 2012.

The results in the table above shows that the null hypothesis of causality running from INF to GDP cannot be rejected neither can the reverse. We therefore accept the null hypotheses in both cases and conclude that no cause-effect relationship exist between inflation and output in Nigeria. The null hypothesis of causality running from SAV to GDP or GDP to SAV, both have highly significant F-value. This implies that the null hypotheses are rejected. Apparently, a feedback relationship exists between savings and output in Nigeria. Thus, savings changes cause changes in output and output movements bring about changes in output. This outcome is in line with the neoclassical growth formulations. The null hypotheses for causality from SAV to INF and INF to SAV also fail the significance test and imply that there is actually no causality between these variables. Essentially, the Granger causality test shows that changes in inflation may not have stimulated nor sufficiently responded to Output growth or Savings in Nigeria over the period of analysis. Factors outside output growth or savings changes may have had better relationships with inflation. On the other hand, changes in savings effectively stimulate output and output critically causes movements in savings in Nigeria.

Vector Autoregression (VAR) Analysis

In this section, we report the result of the VAR estimation as well as the impulse response functions of the estimates. Using a lag-length of 2 periods, the VAR result is reported in table 3 below. The t-ratios of the coefficients are reported below, each in brackets. From the result, it can be seen that one-

period lag GDP has a negative but insignificant impact on GDP. The significant coefficients are those of two-period lagged GDP and both of one-period and two-period lagged Savings. The Savings outcome is quite interesting. The one-period lag result is negative, while the two-period has a positive coefficient. This suggests that, as suggested by the Keynesian formulation, current Savings constitute leakages in the economy which may dampen Output in the short term. However, sustained Savings overtime tends to generate sustainable Output growth overtime. Inflation has no significant impact on GDP as reported in the results. The Inflation result is actually poor because only two-lagged INF has a significant (negative) coefficient which indicates that after some period, inflationary pressure tends to moderate itself. In the Savings result, one-lagged GDP has a positive and significant coefficient; the same as the coefficient of one-lagged Savings. Two-period lagged Savings however is negative and highly significant. This implies that overtime; individuals tend to cut down on Savings.

Table 3: The Vector Autoregression (VAR) Results

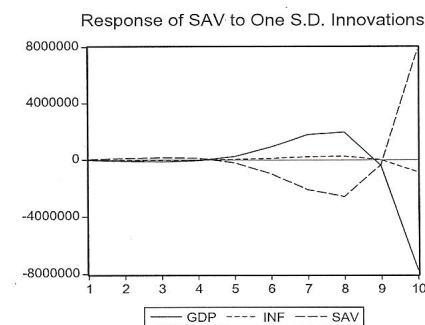
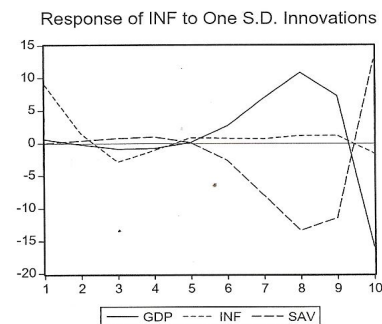
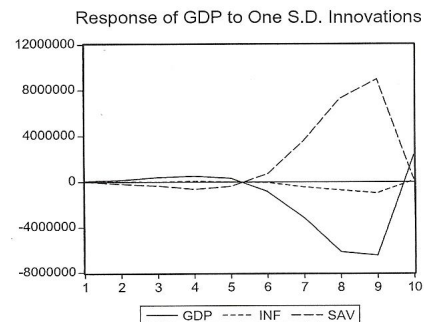
	GDP	INF	SAV
GDP(-1)	-0.048265 (-1.44429)	2.61E-07 (0.06097)	0.138252 (6.02711)
GDP(-2)	1.667220 (35.3249)	-1.52E-06 (-0.25198)	-0.063347 (-1.95539)
INF(-1)	-210.3163 (0.12368)	0.169177 (0.77723)	1225.259 (1.04968)
INF(-2)	-2035.383 (-1.68050)	-0.342804 (-2.21125)	-1211.149 (-1.45683)
SAV(-1)	-5.421252 (-23.1909)	1.02E-05 (0.33960)	2.896481 (18.0512)
SAV(-2)	5.124806 (15.8744)	M -8.59E-06 (-0.20782)	-3.059468 (-13.8065)
Constant (C)	59823.83 (1.58875)	21.66324 (4.49475)	-13858.50 (-0.53619)
R-squared	0.999278	0.999941	0.300451
Adj.R squared	0.999023	0.999921	0.053551
F-statistic	3919.126	48397.43	1.216896

Source: Vector Autoregression Estimation; 2012

The diagnostic tests for the results are impressive for both GDP and SAV results. They have very high R-squared values that are higher than 99 percent. They also possess highly significant F-values that indicate strong relationship between the dependent variables and their respective independent variables. The INF result is not quite significant. The R-squared value of 0.30 is low and the model failed the overall significant test at the 5 percent level.

Figures 1 to 3 are the charts for showing the impulse response functions for each of the variables. Each

chart reports the response of a particular variable to one standard deviation innovation or shock to itself and other variables. The first chart shows that GDP responds positively to a shock in Savings while it responds negatively to a shock Inflation. Both of these responses come after 5-periods have elapsed. In the second chart, Inflation tends to rise after 4-periods to a shock in GDP and then it fell after 9-periods have elapsed. The same pattern of response is noted for Savings responses to the shocks in each variable, although it has a lesser amplitude. These results therefore show that Output changes responds more critically to Savings changes than Inflation. Boosting Savings will effectively stimulate Output. This effect is re-enforcing in nature since rising Output also contribute to Savings growth in the long run. Thus, in the drive to generate higher Output levels in Nigeria, particular focus should be on increasing the Savings level in the economy.



CONCLUSION AND RECOMMENDATION

The primary goal of this study was to investigate the interrelationship between Inflation, Savings and Output, otherwise referred to as Gross Domestic Product (GDP) in Nigeria using the VAR approach. Using time series annual data obtained from Central Bank of Nigeria (CBN) Statistical bulletin for 2007 and 2010 and Annual Report of 2010, Vector Autoregression (VAR) empirical estimation was conducted. To show the robustness of results and findings, Ordinary Least Square (OLS) and Granger causality tests were conducted along side VAR. Generally, the empirical results were impressive. The OLS result indicates that over 90 percent of the variations in Output for the estimation period were captured by the explanatory variables. Each of the individual coefficients of the explanatory variables also show the expected a priori signs suggesting that while Inflation tends to reduce Output, Savings actually stimulates Output. Essentially, the Granger causality test shows that changes in Inflation may not have stimulated nor sufficiently responded to Output growth or Savings in Nigeria over the period of analysis. On the other hand, changes in Savings effectively stimulate Output and Output also critically cause movements in Savings in Nigeria. The VAR results affirmed that Output changes responds more critically to Savings changes than Inflation.

From the empirical results, it is obvious that boosting private savings will effectively stimulate Output in the Nigerian economy. This effect is re-enforcing in nature since rising Output also contribute to Savings growth in the long run and this is in agreement with theoretical literatures. We have no doubts that the empirical evidence obtained in the study may have provided some useful hints on the behaviours or interrelationship between Inflation, private Savings and Output (GDP) in the Nigerian economy. Accordingly, the empirical results may be considered a modest contribution to the empirical literatures on cause-effect relationship between Inflation, Savings and Output or how Output responds to shocks in Inflation and Savings in the Nigerian economy. Thus, we recommend thoughts in this study to stakeholders in the economy, monetary and regulatory authorities, that in the drive to generate higher Output in Nigeria, particular focus should be on increasing Savings levels in the Nigerian economy.

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