The Overview of Macro-Economic Performance of Nigera (An Empirical Analysis of Macroeconomic Indicators from 1981-2010)

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Abstract

The paper observes the economic performance of Nigeria as it's still rank among the world's poorest countries despite the natural resources and the advantage Nigeria could have had over other African countries and if not among the developed countries. In an attempt to investigate the economic performance of Nigeria over 32 years which ranges from 1981-2012; some macroeconomics indicator were highlighted so as to test their relationship with growth and how it has worked so far for Nigeria. The economic indicator highlighted are as follows; gross savings, investment, foreign direct investment(inflow), government expenditures, export, import, inflation as they contributes to growth. Regression analysis was carried out to test the impact and the relationship of these variables on growth and the result shows that investment, inflation, government expenditures and gross savings are negatively related to growth while export and foreign direct investment(inflow) and imports is positively related to growth.

Keywords: Growth, inflation, savings, investment, growth theory and exports.

1.   INTRODUCTION

Nigeria has recorded a long term positive economic growth since 1988 up to 2012 as the period were being chosen for this study; In general the output of an economy grows over time at a certain trend rate but from time to time there may be higher or slower and negative growth than this trend (average) rate

In other words there is a positive upward trend in output in the long-run. However around this positive upward trend; there are fluctuations in the short-run called business cycles. This cycle can be termed as the time of recession, expansion and recovery. Nigeria's economy is not different from those economy that experiences some turbulent time; as you can see from the figure that during the first three years economic performance has been negative followed by the period recovery which later again had a negative outcome but since 1988-2012 growth has been positive and expanding though with a lot of turbulences; this turbulences is what macroeconomic seeks to explains.
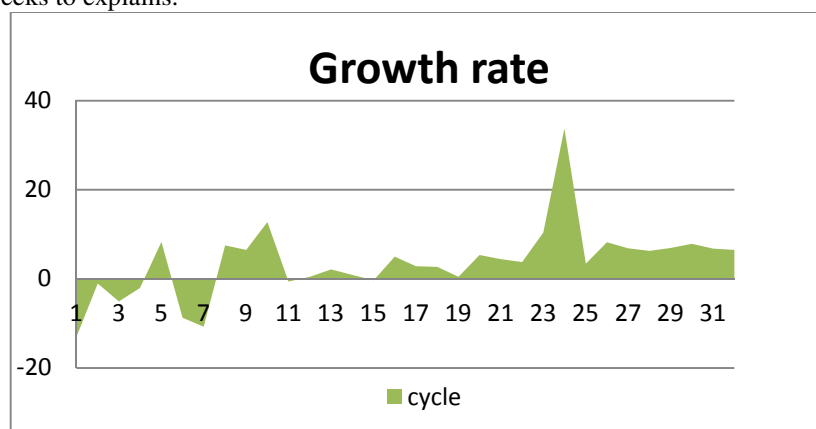

Figure 1. the trend of economic growth in Nigeria over the years

1.1   ECONOMIC GROWTH AND DETERMINANTS

Economic performance is the total goods and services produced by a country in one year; the determinant of growth will lead into the highlights of economic growth theories. The theory of economic growth has been one of the most important issues in the study of economics since back in the days of Adam Smith. There are also number s of theory that explains the journey to a long run positive growth; but economic growth theory which emerges in the 1980s (endogenous growth theory) distinguishes itself from other theory such as neoclassical growth theory by emphasizing that economic growth is an endogenous outcome of an economic system but also not as a result of forces that impinge from the outside (Aghion and Howitt 1992)

This theory explains and uncovers the private and public-sector choice that causes the rate of growth of the residual to vary across countries. The focus of this theory is on the behavior of the economy as a whole. The theory also explains the development and productivity of a country at the level of industry or firm. The

endogenous holds that investment in human capital; innovation and knowledge are significant contributors to growth. It analyzes the importance of policy measures(policies which embrace openness, competition, change and innovation will promote growth and on the other hand policies which have the effect of restricting or slowing change by protecting or favoring particular existing industries are likely to grow slowly to the disadvantage of the community) e.g. availability of resources for research and development.

NEOCLASSICAL GROWTH THEORY (EXOGENOUS GROWTH THEORY)

The neoclassical growth theory which is based on the Solow's growth model that emphasizes the importance of investment; the basic assumption of this theory includes: constant return to scale, diminishing marginal productivity of capital, exogenously determined technical progress and substitutions between capital and labor. The theory emphasizes the importance of savings and investment ratio as a determinant to short run economic growth.

Given the explanation of these two theories above, this paper seeks to examine the performance of Nigeria's economy so far based on the suggestion of these theorist and many more theories of economic growth. The paper is organized as follows. Section 1 is the introduction, section 2 is the literature review and theoretical framework, section 3 is methodology and model estimation, section 4 and 5 contains the discussions of result, recommendation and conclusion respectively

2. LITERATURE REVIEW AND THEORECTICAL FRAMEWORK

There are have been many study on the economic performance of Africa countries which explains the poor performance of Africa countries over the decades,   many   of the studies concluded on poor policy that has been adopted by policy makers in most of these countries. This chapter gives an overview of past research work on the economy performance of most economic indicator chosen for this study.

Ndamibiri et al (2012) in their work that was based on a panel data of 19 countries for the period of 1982-2000, gave an insight into the determinants of economic growth in Africa countries, and the research found out that physical capital formation and vibrant exports contributed to the growth of these countries.

Petra George and his colleagues summarized the determinants of economic growth using the Solow 1956 model to explain the macroeconomic indicator, explaining that the assumption of these two theories (endogenous and the exogenous) model are constant return to scale, subsist-ability of capital and labor, technology as an exogenous variable and endogenous growth models explain the convergence and the divergence debate which suggested that convergence will not be experienced due to the increasing return to scale. Their study emphasized the following explanatory variables as the determinants of economic growth and they include the following: investment, human capital, innovation and R&D, economic policies, openness to trade, FDI, institutional framework, and geographical location.

The study of Ghura (1997) confirms the reality of the endogenous growth type theory at least for the case of Cameroon, the study which was based on private investment and endogenous growth model, this study indicated that aggregate production functions shows an increasing return to scale, increment in investment shows a positive relationship with growth, human capital accumulation also shows an interesting results on growth and the role of economic policies on growth also shows a positive sign.

Yanikkaya (2003) investigated the relationship between trade openness and economic growth, conclusions were based on the cross sectional analysis for the sample countries over the last three decades, using two groups of trade openness measures, they found out that trade liberalization does not have a single and straight forward relationship with growth and they also found that trade barriers are positively and significantly associated with growth especially in developing countries.

Alexander and Ellin (2009) in their study investigated the relationship between trade openness and growth, taking into consideration 6 countries in Asia, measuring their performance before and after the crisis of 1990 and 1997 respectively. They found that the more closed an economy is, the higher the effects of crisis, which means that there is a positive relationship between economic growth and trade openness.

 Vikesh and Subrina (2004) explained in their study the relationship between inflation and economic growth, literatures were reviewed which confirms that it has a negative effects on growth, the study which was based on testing this concept , in the case of Fiji and the test revealed that a weak negative correlation exists between inflation and growth above threshold level.

Athukorala (2003) reviewed his study that measures relationship between FDI and economic growth, a study that uses time series data from the period of (1959-2002), on the performances of Sri Lanka. The result shows that, though as generally theoretically accepted that FDI has a positive relationship with growth, their analysis found out that it is not so in the case of Sri Lanka due to lack of good governance, corruption, political instability and poor institutional setup.

Morrissey and kweka (2000) study the impact of public expenditures on Tanzania   for the past 30 years and result found out that public expenditures have a positive relationship with growth.

Deveraja et al 1996 also focused their attentions on the link between public expenditures and economic growth and they found that increase in the current expenditures has a positive link and it is statistically significant to growth.

This study seeks to analyze all the given independent variable for this study; to show how they have been working in Nigeria as well

3   METHODS

This paper uses linear regression to analyze the relationship between growth and inflation, government expenditures, investment, savings, export, and imports; the analysis was done linearly so as to do away with heteroscedasticity. The frame work has its basis on Solow growth model which explains the importance of savings and investment and also shows that if there were no technological progress, then the effect of diminishing returns would eventually cause economic growth to cease. The model expresses economic growth (GDP) as the function of investment (INV), inflow of foreign direct investment (FDI.INF), inflation (INF), government expenditures (G.EXP), export (EXP), imports (IMP), and gross savings (G.SV) as they have an important impact on economic growth. Thus the model is specified below:

$$GDP= \beta_0 + \beta_1 INV + \beta_2 FDI.INF + \beta_3 G.EXP + \beta_5 EXP + \beta_6 IMP + G.SV + \beta_7 INF.$$

Using this model, standard econometrics test was done based on all variables as a percentage of GDP itself.

Regression analysis is being used to test the impact of these variables on growth and to see their contribution so far in Nigeria.

4   DISCUSSIONS

4.1 Government expenditures

the estimation shows that government expenditures shows a negative relationship and impact to economic growth and its significance is at 10%; the result shows that a 1% increase in the level of government expenditures will lead to about 74% decrease in growth and also government expenditures shows 11% percentage changes on growth.

Possible cause

Since government expenditures have a negative impact on growth for this study; there might be some possible reasons which can include:

- Public agent are not acting altruistically on productive projects
- Funds allocated to states and local council for developments are either been miss- managed or embezzled; given to the level of corruption in the country.

4.2 Investment

The result shows that investment has a negative impact on economic growth and the result is significant at 5%. The estimate also shows that 1% increase in investment will cause growth to decline by 0.64%.

Possible cause

Under the neoclassical growth model developed by Solow and swan (1956) which shows that if there were no technological progress, then the effect of diminishing returns would eventually cause economic growth to cease. A crucial property of the aggregate production function is that there are Diminishing returns to the accumulation of capital. If you continue to equip people with more and more of the same capital goods without inventing new uses for the capital, then a point will be reached eventually where the extra capital goods become redundant except as spare parts in the event of multiple equipment failure, and where therefore the marginal product of capital   is negligible. Recently the GDP of Nigeria has just been rebased and making it the largest economy in African and one of the poorest amongst nations; which imply that there has not been adequate infrastructural development and basic amenities that will foster investment   or make any capital investment a reproducible one.

4.3 Inflation

The result shows that inflation impacted growth negatively with the level of significant of 10%; for this study we found that any 1% increase in inflation will lead to a 0.098% decline in growth.

Economic implications

The implication is that at a higher price level compared to the previous years to today price, more money will be demanded by people for transaction processes, and if for example the central bank is not willing to increase money supply, this will put an upward pressure on the interest rate, which means that if interest rate goes up, it will reduce investment and this reduction will have a multiplier effects throughout the economy, GNP will fall.

4.4 Foreign direct investment

The result shows that foreign direct investment has a positive impact on growth but the result is not significant

4.5 Exports

Export was found to have a positive impact on growth and the result is significant at 10%. This also means that a 1% increase in export will make growth to increase by 0.25 approximately

Economic implication

An increase in Exports means an increase in aggregate demand for domestic products. If Nigeria alters the division of resources from the importing sector to export, this will generate the foreign exchange the country needs to cover for external debt.

4.6 Imports

Imports shows a positive impact on growth but the result was not significant

4.7 Gross savings

The result shows a negative impact on growth for savings but the result is not significant; however a negative relation of savings to growth can still be explained

5. Conclusion and recommendations.

Following the results reported and the implication of the results shown above; firstly the government of Nigeria should make sure the public fund should be directed correctly to a reproducible projects and economic corruption should be given a maximum attention. Secondly government should make sure that a new inventing use of capital is developed i.e. investing in infrastructural development and research development so as to exploit all other resources in the country and avoid concentrating on oil production. Thirdly inflation should be kept low to help investment grows. Lastly entrepreneurs should be encouraged and supported so as to increase the export of goods and services.

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Appendices

REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS R ANOVA
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT GDP
 /METHOD=ENTER G.EXP
 /SCATTERPLOT=(GDP ,*ZPRED)
 /RESIDUALS DURBIN.

Regression

[DataSet0]

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	G.EXP[b]	.	Enter

a. Dependent Variable: GDP

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.341[a]	.116	.087	7.68804	1.671

a. Predictors: (Constant), G.EXP

b. Dependent Variable: GDP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	232.982	1	232.982	3.942	.056[b]
	Residual	1773.177	30	59.106		
	Total	2006.159	31			

a. Dependent Variable: GDP

b. Predictors: (Constant), G.EXP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.160	3.998		2.792	.009
	G.EXP	-.743	.374	-.341	-1.985	.056

a. Dependent Variable: GDP

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-2.1804	7.5670	3.6965	2.74145	32
Residual	-16.55466	27.58014	.00000	7.56302	32
Std. Predicted Value	-2.144	1.412	.000	1.000	32
Std. Residual	-2.153	3.587	.000	.984	32

a. Dependent Variable: GDP

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