



## **NEXUS BETWEEN MILITARY EXPENDITURE, NATIONAL INSECURITY AND ECONOMIC GROWTH IN NIGERIA**

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### **Abstract**

*This study empirically examined the relationship between Military expenditure and Nigeria economic growth between 1981 and 2020 with time series data sourced from World bank database (online). The study examined the nexus between Gross Domestic Product, Military expenditure and Health expenditure by using Ordinary Least Square regression. The direction of Causality was also examined among the variables. The result of the study found a negative effect of Military expenditure on Economic Growth of Nigeria. Based on the findings, the study recommended that enormous expenditure on Military sector should be managed in such a manner that other productive sectors get more funds from annual budget of Nigeria.*

*Keywords: Military Expenditure, Insecurity, Economic Growth, Causality*

## INTRODUCTION

Expenditure on military in developing economies has not been well analysed as an important economic phenomenon by researchers. When compared to the literature on other aspects of government spending, such as education, health and public infrastructure, less analysis have been made on military spending. Security of persons and property from domestic or foreign threats is essential for the operation of markets and the incentives to invest and innovate. Lack of peace and security constitute a distortion in economic activities. This leads to local and foreign investors being skeptical of investing in the economy and resultant dearth in capital in-flow. Government attention is shifted from more productive sectors to defense sector and a great disorder in the socio-economic structure.

According to Stockholm International Peace Research Institute (SIPRI), military expenditure includes all current and capital expenditure on the armed forces, including peacekeeping forces, defence ministries and other government agencies engaged in defence projects; paramilitary force if they are judged to be trained and equipped for military and civil personnel. Excluded are Civil Defence and Current expenditure for previous military activities.

According to Alugbuo and Uremadu (2020) 'the percentage of military expenditure as a share of GDP is high contrary to health or education expenditure as a share of GDP in most developing economy (Nigeria inclusive)'. High military expenditure and rising conflicts (terrorism, insurgency, political conflict, ethnic conflict, religious crisis and border violent, amongst others) in developing countries have become a major impediment to the growth and development of the system. Military spending is an important issue for the international world. It is an expenditure by governments that has influence beyond the resources it takes up, especially when it leads to or facilitates conflicts (Collier 2016).

Military expenditure is the amount of financial resources dedicated by a nation or a state, to raising and maintaining armed forces. It often reflects how much an entity perceives the likelihood of threats against it, or the amount of aggression it wishes to employ. It equally provides an idea of how much finances could be provided for the upcoming year. The size of a budget also reflects the nation's ability to fund military activities, with factors including the size of that economy, other financial demands on that nation and the willingness of that nation's government or people to fund such military activity. Military spending is an important issue for the international world.

Nigeria as a nation is passing through serious challenges in the area of insecurity which some believe could lead to disintegration of the country. The attack/threat of Boko Haram, IPOB, MASSOB etc. call for increase in military expenditure in Nigeria. Budgeting for defence is

of paramount interest to government in order to equip and make the military sector be prepared to suppress the growing insecurity challenges/ threat.

There is a diversified opinion on macroeconomic variable that determined military expenditure in Nigeria. Aiyedogbon. J (2014), Owojimate B (2012) considered some variables like recurrent defense expenditure, capital defense expenditure, total defense expenditure, inflation, savings, technology and regimes measure military spending in Nigeria. Those studies arrived at different conclusion while investigating the relationship between military expenditure and economic growth in Nigeria but they all agreed that high rate of insecurity in Nigeria demands increase in military expenditure. Since consensus has not been reached on whether military expenditure has positive or negative effect on economic growth in Nigeria, there is need for further study on the matter.

### **Objectives of the Study**

- i. To appraise the trend of military expenditure in Nigeria
- ii. To examine the significant effect of military expenditure on economic growth in Nigeria
- iii. To investigate the direction of causality between military expenditure and economic growth in Nigeria.

### **LITERATURE REVIEW**

Dunne and Tian (2015) conducted a multiple regression analysis with panel data divided into sub-samples. Their study used exogenous growth model with a data set across 104 countries covering a period of 22 years from 1988 to 2010. The study discovered that the effect of military expenditure is negative and detrimental as the study revealed a significant negative correlation between defense spending and economic growth. However, the researchers failed to adopt or explicitly state the theoretical framework employed for their work. Adopting a theory of defense could have shown the mechanism through which military defense could influence growth and build their apriori expectation.

In the study of Apanisile & Okunlola (2014), an increase in military expenditure will promote economic growth by increasing human capital capabilities through its provision of education, expansion of aggregate demand, increased security and negatively through a crowding out of investment.

Ajmair, Hussain, Azeem & Gohar (2018) examined the impact of military expenditure on economic growth in Pakistan from 1990 to 2015 using the bounds test to cointegration. Their findings suggest that short and long run relationship exist between military spending and GDP growth.

According to Egwaikhide and Ohwofasa (2009), the negative effect of Military spending is that the additional resources used for military purposes would mean fewer resources would be available for investment and production in the civilian sector especially in the developing countries of Africa which are typically short of resources. This effect, if significant, would be particularly important especially where Military spending has a high content and this would reduce the share of imports of capital goods and intermediate products required for civilian investment .

Eme and Anyadike (2013) opined that strong and efficient armed force, strong enough to guarantee national peace and security is indispensable for the economic progress of a nation. This argument anchors on the premise that defense is a critical sector that contributes to economic development by ensuring internal and external stability Abimbola (2019) stated that without the defense sector, there might not be a desired enabling environment and institutions required for the growth of the Nigerian economy to be achieved. The role of the Nigerian defence sector in tackling the activities of oil bunkerers, vandals and smugglers sabotaging the growth of the oil sector together with its contribution to the nation's

Military expenditure consistently overshadows both education and health expenditure from 2001-2014 except for 2006, 2007 and 2013 when it was slightly overtaken by education expenditure. This tells us that expenditure in health and education sectors has been fluctuating. Increasing military expenditure in Nigeria will not only divert the resources from other sectors but the adverse effects of raising military expenditure in developing economy like Nigeria is likely to worsen the existing poverty since almost all the military hardwares are imported (Eme & Anyadike, 2013).

Masoud & Munadhil (2015), carried out a research on the relationship between military expenditure and economic growth in United States of America using the Autoregressive Distributive Lag (ARDL) bounds testing approach to cointegration tests for the period 1970-2011. The results showed a negative relationship between military expenditure and economic growth. Abdul, Mohd & Dewi (2015), attempted to examine the effect of conflict and military expenditure on three levels of school performance, namely, school enrolment rate, school completion rate and children out of school rate, in five major countries in South Asia over the period from 1980 to 2013 using panel regression methods. The findings of this study are that conflict and military expenditure created an obvious threat to children's education in South Asia. Therefore, the government, policy-makers and international educational organizations should take effective measures to increase educational opportunities in conflict affected areas through affirmative ways to minimize conflict which could subsequently decrease military budget.

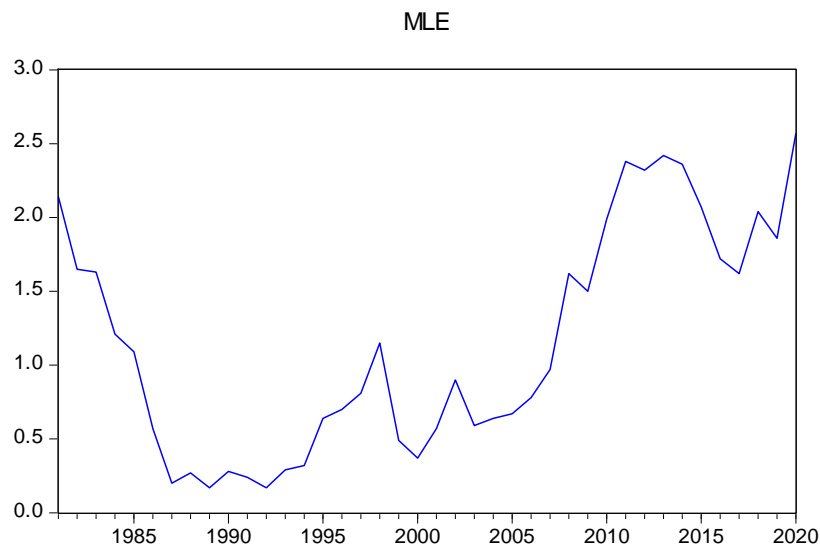
Kollias and Paleologou (2019) employs a panel vector autoregression (PVAR) to investigate the nexus between military expenditure, investment spending and growth rates with 65 countries covering the period 1971– 2014. Findings from the study show that differences between the three income groups were unearthed by the empirical tests conducted.

The political justification of increase in military spending is usually based on the need to maintain national security. Recent dynamics have led to renewed debate over whether the increase of the military expenditure enhances or deteriorates economic growth and welfare in Nigeria.

## METHODOLOGY

This study seeks to examine the nexus between military spending and economic growth in Nigeria in order to achieve this, the study used secondary data collected from World Bank Open Data (online). This study used ordinary least square regression (OLS) to evaluate the effect of military expenditure (MLE) and health expenditure (HEALTH) on economic growth (GDP) between 1981 and 2020. This period covers both the military and democratic era. Health Expenditure of Nigeria is also included to compare it with the military expenditure with the aim to appraise the one that impacted positively on Economic Growth.

Figure 1: Trend of military expenditure in Nigeria



Source: Authors computation (2022)

From the trend above, there is a fall in military expenditure between 1981 and 1987. This implies that the spate of insecurity in Nigeria was relatively checked by the military expenditure within the period. The level of insecurity is also curtailed between 1987 and 1993 by not

allowing it to rise. The level of insecurity in Nigeria began to rise around 2004 and reach an unprecedented level by 2014. This could be ascribed to the violence activities of Boko-Haram and Massob groups in Nigeria. The insecurity waves reached the highest level in year 2020. Increase in military expenditure for the year 2020 could be ascribed to the additional activities of kidnapers and bandits.

$$GDP = \beta_0 + \beta_1 MLE + \beta_2 HLT + U_t + \dots \dots \dots (i)$$

where GDP = Gross Domestic Product (Economic growth)

MLE = Military Expenditure

HLT = Health Expenditure

$\beta_0$  = Intercept

$\beta_1$ -  $\beta_2$  = Coefficient of the Variables

the logarithms is applied to equation (i) it becomes:

$$LGDP = \beta_0 + \beta_1 LMLE + \beta_3 LHLT + U_t + \dots \dots \dots (ii)$$

where LGDP = logarithms of GDP

LMLE = Logarithms of MLE

LHLT = logarithm of HLT

$U_t$  = Error term

## RESULTS

Table 1: Least Square Estimation

Dependent Variable: LGDP				
Method: Least Squares				
Date: 07/05/22 Time: 11:30				
Sample: 1981 2020				
Included observations: 40				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.951810	0.325033	27.54127	0.0000
LMLE	-0.06025	0.03557	-1.69387	0.0000
LHLT	1.609964	0.387761	4.151953	0.0002
R-squared	0.692077	Mean dependent var	8.713507	
Adjusted R-squared	0.673973	S.D. dependent var	2.408062	
S.E. of regression	2.023383	Akaike info criterion	4.296126	
Sum squared resid	155.5750	Schwarz criterion	4.380570	
Log likelihood	-83.92251	Hannan-Quinn criter.	4.326658	
F-statistic	17.23872	Durbin-Watson stat	1.891319	
Prob(F-statistic)	0.000179			

The result in table 1 shows that about 69.2% of systematic variations in the dependent variable LGDP are explained by the independent variables (Military Expenditure and Health Expenditure). This result shows that Military expenditure (LMLE) exhibited a negative relationship with Economic growth (LGDP) with the coefficient value of -0.060251. These tallies with a-priori expectation. This means the larger the Military expenditure the less the growth of GDP.

However there is a positive relationship between Health expenditure (LHLT) and economic growth (LGDP) with the coefficient value of 0.609964. This means the larger the expenses on Health the greater the GDP. This also tallies with a priori expectation. The healthier the populace the more the ability to positively contribution to GDP.

In terms of significance the Military expenditure shows a significant relationship with Economic growth at 5% with a p-value of 0.0000 since the 0.0000 is less than 0.05 the alternative hypothesis is accepted. Hence it can be inferred that Military expenditure is statistically significant but has a negative relationship on economic growth.

In terms of overall significance, the independent variables had a combined significance with economic growth which is indicated by the Prob (F-statistics) of 0.000179. The Dubin Watson Statistic of 1.89 is an indication of absence of auto-correction.

Table 2: Pairwise Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Prob.
LHLT does not Granger Cause LGDP	36	7.18901	0.0101
LGDP does not Granger Cause LHLT		0.13474	0.8754
LMLE does not Granger Cause LGDP	36	0.23885	0.7915
LGDP does not Granger Cause LMLE		2.65967	0.1142
LMLE does not Granger Cause LHLT	36	0.06873	0.9340
LHLT does not Granger Cause LMLE		0.50594	0.6163

The first row in table 2 above, shows the causality effect between Health expenditure and Economic growth. The result shows that Health Expenditure (LHLT) granger cause Economic Growth (LGDP) 5 note its P-value is 0.01 <0.05 but Economic Growth does not granger cause Health expenditure. This is a unidirectional causality.

However, the Granger Causality between Military expenditure and Economic growth in Nigeria, for this scope of Study is non-directional. Neither Military expenditure Granger Cause Economic growth nor Economic growth granger cause Military expenditure as indicated in the P-values: 0.7915 and 0.1142

Table 3: Variance Inflation Factors

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	3.550614	151.2170	NA
LMLE	0.252813	2.586183	1.329808
LHLT	1.201722	164.5537	1.329808

The Variance inflation factor was used to check for MultiCollinearity. The Basic requirement is that VIF must be below the benchmark of 10. Hence, in Table 3 above, since both centered VIFs are below 10, one can conclude that there is no issue of MultiCollinearity in the Model.

Table 4: Breusch-Godfrey Serial Correlation LM Test

F-statistic	2.621183	Prob. F(2,13)	0.1106
Obs*R-squared	5.172717	Prob. Chi-Square(2)	0.0753

Table 4 above shows that the F-Statistics and obs R-Square values of 2.621183 and 5.172717 respectively indicate the absence of auto relation in the model used since the F-Statistics and Obs R-Square with P-value of 0.1106 and 0.0753 are greater than the Critical values of 5% level of Significance Hence, we accept the null hypothesis that there is no order of auto correlation and one can conclude that is no presence of auto relation in model used.

Table 5: RAMSEY Reset Test

	Value	Df	Probability
t-statistic	1.175557	14	0.2594
F-statistic	1.381935	(1, 14)	0.2594
Likelihood ratio	1.694456	1	0.1930

Table 5 above shows the F=statistics with a value of 1.38193 and a P-value of 0.2594. This indicate that the model is correctly specified since the F-statistics P-value is greater than the critical value at 5% level of significant. Hence we can conclude that the model is correctly specified.

## CONCLUSION AND RECOMMENDATIONS

This study investigates the relationship between military expenditure and economic growth in Nigeria. From the study, it was discovered that military expenditure in Nigeria has a negative impact on the growth of the economy. The study includes health expenditures in order



to juxtapose the two variables effect on economic growth. It was discovered that health expenditures contributes positively to economic growth.

Granger causality test also explained that neither military expenditure brings economic growth nor economic growth brings increase in military expenditure.

On the basis of these findings, it should be recommended that expenditure on Military sector should be reduced in such a manner that other productive sectors get more funds from the Federal Budget in order to propel the Nigeria economic growth.

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