DEFENSE EXPENDITURE AND ECONOMIC GROWTH IN NIGERIA

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Abstract

This paper examined the impact of military expenditure on economic growth in Nigeria. Real Gross Domestic Product (RGDP) which was proxy for economic growth served as the dependent variable while the independent variables are Defense Expenditure (DEXP), Internal Security Expenditure (INTSEXP), Nigerian Terrorism Index (NTI) and Index of Political Stability (IPS). The study made use of ARDL bound test to determine existence of long run relationship amongst variables, after which it adopt the long run ARDL model to determine the impact of the independent variables on the dependent variable. The study therefore found that defense expenditure, internal security expenditure and index of political stability all had positive and significant impact on economic growth in the long run while Nigerian terrorism index had a positive but insignificant impact on economic growth within the study period. Therefore, the study recommends that the government should increase expenditure on defense and internal security, so as to bring down the level of terrorist activities and in turn ensure a stable political climate in the country. If this can be achieved, economic growth no doubt will be stimulated in the Nigerian environment.

Keywords: Military Expenditure, Defense Expenditure, Security, Economic Growth, ARDL

1. Introduction

The relationship between military expenditure and economic growth is a major debate in the development literature. There is evidence that a significant fraction of the fiscal provision of developing economies is expended on the military at the expense of other social needs (Khalid and Mustapha, 2014). The main motivation for testing the relationship between military expenditure and economic growth is to enable policymakers judge the economic impact of the government expending their scarce resources and revenue for military and defense purposes. Military expenditure can affect an economy positively through an expansion of aggregate demand or through increased security or negatively through crowding out of investment (Enimola and Akoko, 2011). The levels of fiscal provision for the various sectors of the economy have varied implications for them. A disproportionately large military expenditure would usually be at the cost of social service provision and also impact on other critical sectors of the economy that require significant fiscal provisions. For instance, on the one hand, a disproportionate military expenditure impedes economic efficiency, although it is important to highlight the importance of stability for economic development (Deger and Sen, 1995).

The role of government in an economy cannot be over-emphasized. Two amongst these important duties as noted by Adam Smith are to protect the society from the violence and invasion of other independent societies and; protect every member of the society from the oppression of every member of it. This established the basis for the economic need of security in countries of the world. 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. These results in local and foreign investors being skeptical of investing in the economy leading to a dearth in capital in-flow, because government attention is shifted from more productive sectors to defense sector and a great disorder in the socio-economic structure.

War and lack of security are some of the major obstacles to development (Dunne *et.al* 2004). This perhaps, accounts for the reason why many countries of the world desire and make effort towards maintaining peace and security in and outside their territories. Peace is an important precondition for economic development in the world. In the absence of peace and tranquility, there is little or no incentive for people to undertake productive investments in the legal economy, as the likelihood of return on investment is minimal. Many countries of the world commit huge resources such as human, mental and even financial to bring and maintain peace and tranquility in their country. National and international organizations have committed huge resources towards bringing and maintaining peace all over the world. The United Nation spends about \$5billion naira yearly on peacekeeping all over the world (Carnahan et al, 2006). The organization budgeted US \$7.84 billion for the period from July 2011 to 30 June 2012 which represents less than 0.5 per cent of global military spending (Tiwari and Shabbaz, 2011). This goes to prove that the importance of peace and the spending to maintain peace and tranquility for the purpose of stimulating economic growth cannot be overemphasized. It is based on this fact that this study attempts to x-ray the nexus or link between military expenditure and economic growth in Nigeria. The paper is divided into four sections. The first section is the introduction and background information, the second section gives insights into the issues of literatures and empirical reviews, the third section presents the methodology of the study while the final section conclusions the study and equally recommends possible policy option for the Nigeria Economy.

2. Literature Review

This section of the study examined the conceptual literature, the empirical literature and the theoretical framework. The conceptual literature provides the different definitions/meanings of the major concepts or words used in the study, while the empirical literature provides a detailed review of already existing related studies. The theoretical framework concludes this section of the study by providing a theoretical foundation or base for the study to be anchored on.

2.1.1 Military Expenditure

Expenditure on military activities known as a defense budget of a nation is the amount of financial resources devoted to upkeep of an armed force or different techniques of defense

purposes. It frequently reflects how strongly an entity recognizes the likelihood of threats against it, or the amount of aggression it wishes to employ (Ferda, 2004). It also gives an idea of how much financing should be provided for the upcoming year. The size of a budget also replicates the entity's ability to fund military activities.

2.1.2 Economic Growth

When economic growth is discussed, it's generally referred connotatively as quantitative increase. That is, it's the increase in the total output of goods and services overtime. In this context, the gross domestic product (GDP) changes hence, it increases in GDP overtime. Perhaps the most essential explanation that the quantitative connotation of economic growth suggest is the very definition offered by Professor Robert Kuznet in 1971 when he asserted that economic growth is essentially a quantitative concept", and hence if we are to make substantial progress in the empirical and theoretical analysis of the growth phenomenon, we must consider the quantitative aspect as basic (Benoit, 1978). The economy is said to grow when the total output of goods and services are rising overtime. The implication of this is that the total GDP or GNP is increasing overtime. Further analysis suggest that when the total production of the whole sectors of the economy such Agriculture, Trade and Commerce, Science and Technology, Mining and Query, Education, health, is increasing over a long period of time, the economy is said to be growing.

The human capital which comprises of the personnel (human resources) in various sectors that act as the oil determines the extent of this growth, it is only a matter of time before more growth is experience because human capital are the engine of economic growth in any economy (Collier, 2006). Hence, economic growth is expected to have positive relationship with human capital development.

2.2 Empirical Review

Ayange et al (2020) examined "Security Expenditure on Economic Growth in Nigeria". Adopting the ARDL bounds test and Error Correction Model (ECM) on quarterly time-series data from January 2010-December 2018, the findings and results indicate that security expenditure is economically a contributive expenditure. In the long-run a positive and significant impact on economic growth and human capital development, in the shot-run a negative relationship. The ECM model conveyed the speed of convergence from disequilibrium in the short-run back to long-run equilibrium by 86% quarterly.

Ferda (2004) using new macro – economic theory and multivariate cointegration procedure to study defense spending and economic growth in Turkey for the period 1950 - 2002, found a positive long run relationship between aggregate defense spending and aggregate output in the country. In addition, the CUSUM and CUSUMSQ tests confirmed the stability of the aggregate output function.

Kalyoncu and Yucel (2005) in their study of the relationship between defense spending and economic growth for Turkey and Greece in the period 1950 - 2003 made use of EG cointegration test results. They found that long run equilibrium exist between defense expenditure and income for the two countries and also that long run equilibrium between Turkey defense expenditure and Greece defense expenditure. The causality tests showed that there is a unidirectional causality running from economic growth to defense expenditure only for Turkey.

Odusola (1996) who employed simultaneous equation model to estimate the relationship between military expenditure and economic growth in Nigeria found that aggregate military expenditure was negatively related to economic growth. He decomposed expenditure into recurrent and capital military expenditure and found that the former was more growth inhibiting than the latter.

Jeofferey and Edward (2008) using cross national panel regression and causal analysis of Developed and Less Developed countries from 1990 – 2003 showed that military expenditure per soldier inhibit the growth of per capital GDP, net of control variables with the most pronounced effects in Less Developed Countries. The inhibition is manifested in the slowing down of the expansion of the labor force. According to the duo, labor intensive militaries may provide a pathway for upward mobility, but comparatively capital intensive military organization limit entry opportunities for unskilled and under, or unemployed people. They equally argued that deep investment in military hardware also reduce the investment capital available for more economic productive opportunities. However, they found that arms inputs have a positive effect on growth, but only in LDCs.

In an attempt to find if there is any relationship between military expenditure and gross domestic product in Czech Republic, Danek (2013) asserted the military expenditures explain only 46% of the changes of GDP. That is military expenditure has no meaningful effect on growth. Also, the correlation coefficient showed that there is 68% negative relationship between the variables of the military expenditure and GDP. Military spending is an expenditure by governments that has influence beyond the resources it takes up, especially when it leads to or facilitates conflicts. While countries need some level of security to deal with internal and external threats, these have opportunity costs, as they prevent resources being used for other purposes that might improve the pace of development.

Also in their study on the causal relationship between military expenditure and economic growth for 68 developing countries for the period 1975-1995, Dakurah *et. al.* (2000) using granger causality testing procedures found some evidence of unidirectional causality from military expenditure to growth and from growth to military expenditure in a number of countries, as well as a feedback relationship in others. They however concluded that the lack of evidence of causal relationship between the two variables in this study and others.

Before it might be due to violations of the basic assumptions inherent in these testing procedures, Wilkins (2004) conducted a study, using a panel data model estimation to examine the relationship between defense spending and economic growth using annual data for 85 countries over the period 1988 to 2002. The average defense burden for each of these countries is calculated and regional and global defense burdens are estimated. Using percentage shares of world GDP as weights, the global weighted average defense burden is found to have consistently fallen from 4.78% in 1988 to 2.95% in 2001; largely a result of the cold war ending and the arms race finishing in an earlier period. Also, The estimated empirical model explaining GDP growth as a function of defense spending, labour and capital suggests varying country specific effects for defense and, as might be expected, larger positive effects for labour and capital.

Some studies have also being conducted in Nigeria on military expenditure and economic growth. Enimola (2008) studied the relationship between the level of economic growth and Defense expenditure in Nigeria between 1977 and 2006. He employed the supply model based on the production function. The result showed that there is a unidirectional causality running from economic growth to defense spending.

In the study of the impact of security expenditure on the level of economic growth in Nigeria, Oriavwote and Eshenake (2013) used Error Correction Model and found out that the expenditure on defense has a negative impact on the level of economic growth. Though, with an indication of flawed expenditure budgeting and implementation in the defense sector, expenditure on internal security played important role in generating the desired level of economic growth in Nigeria.

In a related study, Olofin (2012) examined the relationship between the components of defense spending and poverty reduction in Nigeria between 1990 and 2010. Four models were estimated using Dynamic Ordinary Least Square (DOLS) method, two in which Poverty index constructed from human development indicators serves as dependent variable and the others in which infant mortality rate serves as dependent variable. The result show that military expenditure per soldier, military participation rate, trade, population and output per capita square were positively related to poverty indicator and, military expenditure, secondary school enrolment and output per capita were negatively related to poverty level. The findings confirm the trade-off between the well-being and capital intensiveness of the military in Nigeria, pointing to the vulnerability of the poor among the Nigerians.

In the view of Dunne *et. al.* (2001), when undertaking the econometric studies of the military expenditure and growth, the simple Feeder-Ram has something appealing to defense economists, this is its ability to explicitly treat externality effects of the military on the non-military sector. In the work of Biswas and Ram (1986), who first modified the model of the exports-growth nexus in developing countries for a cross-country study of the link between military spending and economic growth, numerous empirical contributions to the guns-and-butter debate have employed variants of the same approach. Denger and Sen (1986) represent the Feeder-Biswas-Ram externality model as a splendid empirical workhorse to investigate the impact of military expenditure on growth. The approach is generally seen to provide a

formal justification for the inclusion of military expenditure as an explanatory variable in a single-equation growth regression analysis, which is based on the neoclassical theory of growth (Mintz and Stevenson 1995), or at least fairly based on the neoclassical production-function framework (Biswas and Ram 1986).

Studies have been conducted in the developed and developing countries on the relationship between military spending and economic growth, which have given varying result by defense economist. There has been serious contestation has to if military spending has effect on economic growth. Some researchers are of the opinion that military expenditure plays a role in the growth of and economy while others have contrary views. Some believe that military expenditure has a mixed effect on economic growth. Among who believed that military spending has mixed is Smaldone (2005), in the findings of his work "African military spending: Defense versus development?" he stated that; (1) military spending produces a mix of both positive and negative effects that vary across countries; (2) its overall effects, whether positive or negative, are usually not pronounced; and (3) the modal economic impact of defense spending in the Third World is slightly negative, more so in Africa. He further stated that considering the fact that military expenditure provides a public good (security), its negative socioeconomic effects are not excessive, at least in states enjoying higher legitimacy, socioeconomic standards, and peace.

Tiwari and Shahbaz (2011) investigated the effect of defense spending on economic growth using ARDL bounds testing approach to co-integration in augmented version of Keynesian model for Indian economy. They found out that there is long run relationship between the variables, and also there is a positive effect of the defense spending on economic growth (also negative impact after a threshold point). Furthermore, there study also showed that there is bidirectional causal relationship between defense spending and economic growth using variance decomposition approach. As against the widely held belief that in poor countries a high share of defense in GDP is associated with a high growth rate.

Amana et al (2020) studies the "Impact of Government Security Expenditure on Economic Growth in Nigeria (1986-2018)". The study was carried out using time series data, and econometrics tools were used for testing and estimation. Augmented Dickey-Fuller (ADF) was used to test the stationarity, the Ordinary Least Square (OLS) and Error Correction Model (ECM) techniques were used to estimate the impact of government security expenditure on economic growth in Nigeria and the causality test was also carried out to show the casual relationship among the economic variables using Granger test. While long run result revealed that Government Recurrent Defence Spending in Nigeria (GRDEXP), Government Recurrent Internal Security Spending in Nigeria (GRISEXP) and Government Security Capital Expenditure in Nigeria (GSCAEXP) were statistically significant at 5% level of significance. Also, ECM result revealed that all the independent variables were statistically insignificant in explaining the variation in Real Gross Domestic Products (RGDP) in Nigeria except Government Recurrent Defence Spending in Nigeria (GRDEXP).

2.3 Theoretical Framework

Peacock and Wiseman's study is probably one of the best known analyses of the time pattern of public expenditures. They founded their analyses upon a political theory of public determination namely that governments like to spend more money and citizens do not like to pay taxes, and that government need to pay some attention to the wishes of their citizens. The duo saw taxation as setting a constraint on government expenditure (Collier, 2006). As the economy and thus incomes grew, tax revenue at constant tax rate would rise, thereby enabling public expenditure to show a gradual upward trend even although within the economy there might be a divergence between what people regarded as being desirable level of public expenditure and the desirable level of taxation during the periods of social upheaval

However, this gradual upward trend in public expenditure would be disturbed (Collier, 2006). These periods would coincide with war, famine or some large-scale social disaster, which would require a rapid increase in public expenditures; the government would be forced to raise taxation levies. The rising of taxation levels would, however, be regarded as acceptable to the people during the period of crisis. Peacock and Wiseman referred to this as the "displacement effect". Public expenditure is displaced upwards and for the period of the crisis displaced private for public expenditure does not however fall to its original level.

A war is not paid for from taxation; no nation has such large taxable capacity. Countries therefore borrow and debt charges have to be not after the event. Another effect that they thought might operate was the "imperfection effect" thus they suggested a rise from the people, keener awareness of social problems during the period of upheaval (Benoit, 1978). The government therefore expands its scope of services to improve these social conditions and because people perception to tolerable levels of taxation does not return to its former level, the government is able to finance these higher levels of expenditures originating in the expanded scope of government and debt charges.

3. Methodology

The study covered the Nigerian economy for the period spanning 1986 to 2021. The sample size is limited to the data and information obtained on the variables within the study period. Time series data on Real Gross Domestic Product, Defense Expenditure, Internal Security Expenditure, Nigerian Terrorism Index and Index of Political Stability were sourced secondarily from the World Bank Database, SIPRI Military Expenditure Database, and the Nigerian Security Tracker (NST).

The method of estimation adopted include determining the order of integration of the variables employed using Augmented Dickey Fuller (ADF) unit root test, obtaining the cointegration regression from the normalized coefficient of the model generated from the cointegration bound test; and should co-integration exist then the need for a short-run and longrun Auto-regressive Distributive Lag (ARDL) model estimation. Also the variables are tested for autocorrelation to know whether the data are ordered in chronological order and are serial independent. The premise of the study's objective is to determine the impact of military expenditure on economic growth in Nigeria. Following and modifying the specification of Wilkins (2004), this research work employs Real GDP as a function of the specified explanatory variables.

Where RGDP is Real Gross domestic Product, DEXP is Defence Expenditure, INTSEXP captures Internal Security Expenditure, NTI is the Nigerian Terrorism Index and IPS is the Index of Political Stability

The econometric specification is as follows:

 $RGDP = \beta_0 + \beta_1 DEXP_t + \beta_2 INTSEXP_t + \beta_3 NTI_t + \beta_4 IPS_t + \mu_t \dots (2)$

4.0 **Results and Analysis**

4.1 Stationarity/Unit Root Test

In time series analysis, there is every tendency for estimations to be spurious which violates the reliability of the coefficient for policy prescription and Formulation. This calls for carrying out a unit root test on various series and establishing their order of integration.

In order not to run a spurious regression, a time series data should be examined for stationarity. Using the Dickey-Fuller (ADF) Test, all variables were tested at levels. The test is based on the following model.

 $Y_t = \alpha Y_t - 1 + \mu_t....(3)$

The null hypothesis is Ho: $\delta = 0$ and the alternate is Ha: $\delta < 0$.

If the ADF test statistics is less than the critical value, we reject the null hypothesis and conclude the series is stationary (has no unit root).

Variable	ADF Stat	Critical Value @ 5%	Prob	Order of Integration
RGDP	-4.894	-2.971	0.0005*	1 (0)
DEXP	-4.511	-2.971	0.001*	1 (1)
INTSECX	-3.596	-2.971	0.012*	1 (1)
NTI	-7.492	-2.971	0.000*	1 (1)
IPS	-4.428	-2.971	0.001*	1(1)

 Table 4.1: Unit Root Test Result

*Indicates a sign at 5% level of significance

Source: Authors' Extraction from Eviews 10, 2022

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Table 4.1 shows the Augmented Dickey-Fuller (ADF) unit root test results. The test result demonstrates that the variables are integrated at levels I(0) and first difference I(1). Based on these findings, it is observed that Real Gross Domestic Product (RGDP) is stationary at level I(0), while Defense Expenditure (DEXP), Internal Security Expenditure (INTSECX), Nigerian Terrorism Index (NTI), and Index of Political Stability (IPS) were stationary at first difference I(1). The stationarity was determined at 5% level of significance. Since the stationarity outcome revealed a mixture of I(0) and I(1), then the most appropriate econometric technique will be the Auto-Regressive Distributive Lag (ARDL) approach. Hence, the study will employ the Autoregressive distributive lag (ARDL). ARDL is a least squares regression approach involving the lag of both the endogenous variable and exogenous variables (Gujarati, 2003). ARDL model is normally denoted using ARDL notion (p₁ q₁, q₂, q₃,q_k). P denotes the number of lags of the endogenous variable and q₁ is the number of the lags of the first exogenous variable, and q_k is the lags of the kth exogenous variable.

4.2: ARDL Bound Test Estimation

Test Statistic	Value	К	
F-Statistic	46.00	5	
Critical value Bounds			
Significance level	10	I1	
10%	2.72	3.77	
5%	3.23	3.35	
2.5%	3.69	4.89	
1%	4.29	5.61	

Table 4.2: Co-Integration Bound Test Result

Source: Authors' Extraction from Eviews 10, 2022

From the ARDL bound testing output presented in Table 4.2, the computed F-statistics (46.00) is greater than the upper bound I(1) at both 1%, 2.5%, 5% and 10%. Therefore, the null hypothesis of no cointegration among the series is rejected. This result thus implies that a cointegration (long-run relationship) exists among the series i.e. Real Gross Domestic Product (RGDP), Defense Expenditure (DEXP), Internal Security Expenditure (INTSECX), Nigerian Terrorism Index (NTI), and Index of Political Stability (IPS). However, with the presence of co-integration among the series being established, the ARDL model will hence be estimated for the short-run and long-run respectively.

4.3 Short-run ARDL Result

Table 4.3: ARDL Short-Run Result

Variable	Coefficient	Prob			
С	22.72549	0.0000			
D(DEXP)	0.312165	0.0110			
D(INTSEXP)	0.234055	0.0267			
D(NTI)	0.254566	0.0123			
D(IPS)	0.452627	0.0026			
ECT(-1)	-0.634336	0.0195			
R-Squared	0.665704				
Adjusted R-Squared 0.29246					
D.W. Stat 1.835512					

Source: Authors' Extraction from Eviews 10, 2022

From table 4.3, the short run form of the ARDL model accounts for the speed of adjustment to long run equilibrium of the variables employed. The speed of adjustment of the model to long run equilibrium is measured by the coefficient of the first lag of the Error Correction Term (ECT (-1)). The Error Correction Term (-0.63) has the right apriori sign and it is statistically significant. Hence, the result of the ECT (-1) showed that 63% of the deviation of the variables in the short run would be restored in the long run within one year.

4.4 Long-run ARDL Result

Table 4.4: ARDL Long Run Result

Variable	Coefficient	Prob			
DEXP	0.110107	0.0005			
INTSEXP	0.109012	0.0367			
NTI	0.323605	0.0207			
IPS	0.222798	0.0159			
С	421.0633	0.000			
R-Squared 0.723565					
Adjusted R-Squared 0.401666					
D.W. Stat 1.640087					

Source: Authors' Extraction from Eviews 10, 2022

The table above shows a long run result of the estimation indicating the various impact of the independent variables on the dependent variable in the long run. The result indicates that a 1% increase in the defense expenditure will lead to 11% increase in real GDP in Nigeria within the study period. This conforms to apriori expectation because as more money is expended on military hardware, armoury, equipment's and trainings, the services of the military would be improved and their roles in ensuring peace and stability would be enhanced. This goes to provide a conducive environment where economic activities can thrive, thereby leading to a boost in economic growth. The Nigerian economy has witnessed improved and increased economic growth in recent times, and this can be partly attributed to the increased expenditure and investment in the Nigerian Military and Defense sector. More military barracks have been built, existing dilapidated barracks have been re-built and renovated, more individuals recruited and enrolled into the army with increased income and allowances for military personnel etc, all these leads to an increase in the overall money supply in the economy, which in-turn stimulates economic growth and development. Thus, the result above reveals that Defense expenditure has a positive and significant impact on the economic growth of Nigeria judging from its probability value of 0.0005. This finding conforms to the result of Enimola & Akoko (2011), Ferda (2004) and Galvin (2003) but violates Dunne & Uye (2010) as well as Khalid & Mustapha (2014).

Also, at the 5 percent critical level and a probability value of 0.0367, the coefficient of internal security expenditure (INTSEXP) had a positive and statistically significant impact on economic growth in Nigeria within the study period. The coefficient can be interpreted thus; holding other regressors constant, a percentage increase in internal security expenditure will stimulate and lead to economic growth by 10.9%. The finding from this particular explanatory variable is not farfetched due to the fact that internal security expenditure is a sub-component of defense expenditure. Hence, since defense expenditure has a positive significant influence on economic growth, it follows that internal security expenditure should trail same path. This finding conforms to apriori expectation because internal security expenditure is consumption expenditure impacting directly on the economic and business climate and also influencing investment and human capital development. Consequently, Security of persons and property from domestic or foreign threats is essential for the operation of markets and the incentives to invest and innovate. This conforms to the findings of Ayange et al (2020), Abu et al (2020), Enimola & Akoko (2011) but contradicts the findings of Dunne & Uye (2010) as well as Khalid & Mustapha (2014).

Furthermore, table 4.4 also indicate that a unit increase in the Nigeria Terrorism Index will lead to 32% increase in economic growth in Nigeria as proxied by Real Gross Domestic Product. This direction of relationship does not conform to apriori expectation indicating that NTI is not statistically significant in impacting economic growth in Nigeria within the study period. However, this positive relationship can be justified because a high rating for Nigeria's Terrorism Index implies a high level of insecurity and a non-conducive economy that would prompt increased security expenditure and attention. Such increased security expenditure will no doubt stimulate economic growth and progress because security expenditures are

economically deemed as contributive expenditures that aggravates business and investment activities locally and globally.

The study further indicates that a 1% increase in Index of Political Stability (IPS) will lead to about 22% increase in economic growth in Nigeria. Lack of peace and security constitute a distortion in political activities. These results in local and foreign investors being sceptical of investing in the economy leading to a dearth in capital in-flow, thereby diverting government attention from more productive sectors to defence sector and a great disorder in the socio-economic structure. There's no doubt that political stability is a product or offshoot of a safe, secure and stable economy. Consequently, an economy that enjoys peace, security and safety of lives and properties will equally enjoy a reasonable level of political stability. Political stability has been adjudged economically to attract foreign investors and Foreign Direct Investments (FDI), which translates to economic growth and prosperity. This finding conforms to apriori expectation thereby making IPS statistically significant in influencing economic growth, judging from its probability value of 0.0159.

5.0 Conclusion

There is no doubt that the anti-economic activities of Boko Haram in the North, Militancy in the Niger Delta, and Fulani herdsmen in the Middle Belt among other banditry activities in Nigeria has led to the loss of lives and properties, and in-turn eroded enormous gains from economic and business activities in the last two decades. This buttresses the significance of security to economic growth and development. In this regard, this study investigates the impact of military expenditure on economic growth in Nigeria. The findings of this research work revealed that Defense Expenditure, Internal Security Expenditure and Index of Political stability had positive and significant relationship with economic growth within the study period, while the Nigerian Terrorism Index had a positive but insignificant relationship with economic growth within the study period. This study thus established that secure and stable economic and business environments positively stimulate economic growth and human capital development, and that military expenditure is economically a contributive expenditure that positively influences other sectors and components of the macro economy.

6.0 Recommendation

Based on the findings of this research, government should increase and monitor its defense expenditure by ensuring that such funds are expended strictly on security and defense related objectives. This will stimulate general productivity in the economy to enhance real GDP growth. Also, government should increase its expenditure on internal security via collaboration with community security outfits and intense intelligence gathering to checkmate terrorism, kidnapping, banditry, armed robbery and other vices in the domestic economy. This will increase safety and security of lives and property, ensure political stability and inturn stimulate productivity as well as economic growth in the economy. Finally, the study recommends an increase in government expenditure on human capital development to curtail insecurity, rather than increase security expenditure to checkmate insecurity.

References

- Akpa, P. (1997). Force Structure and Budgeting System for Defence: A proposal for the fourth Republic. Being a Project submitted at the National War College, Course 5, 1996/97 Abuja, Nigeria unpublished, June, pp. 25 & 42, in Anyanwu, S; Egwaikhide, C. and Aiyedogbon J, eds,
- Aizenman, J., & Reuven G. (2003). Military expenditure, threats and growth, *FRBSF* working paper, 2003-08
- Amana, S. A., Aigbedion I. M., & Zubair A. Z. (2020). Impact of Government Security Expenditure on Economic Growth in Nigeria, *International Journal of Innovative Research in Social Sciences and Strategic Management Techniques*, Volume 7, Number 1, PP 23 - 37
- Ayange, A., Udo E., Abner S., Ishaku P., & Ndubuaku V. (2020). Security Expenditure On Economic Growth In Nigeria, *Humanities & Social Sciences Reviews*, Vol 8, No 3, 2020, pp 553-561
- Benoit, E., (1978). Growth and defense in developing countries. *Economic development and cultural change*, 26(2), pp.271-280.
- Biswas, R. & Ram R. (1986). Military Expenditure and Economic Growth in LDC: An Augmented Model and Further Evidence. *Economic Development and Cultural Change* 34(2) 361-37.
- Carnahan, M., Durch, W., & Gilmore, S., (2006). *Economic Impact of Peacekeeping*. Final report of the discussion paper of the United Nations Peacekeeping.
- Collier, P., (2006). War and military expenditure in developing countries and their consequences for development. *The Economics of Peace and Security Journal*, 1(1), pp. 34-40.
- D'Agostino, G., Dunne, J.P. & Pieroni, L., (2017). Does military spending matter for longrun growth?. *Defense and Peace Economics*, 28(4), pp.429-436.
- Dakurah, H; S. Davies & R. Sampath (2001). Defence Spending and Economic Growth in Developing Countries: A Causality Analysis, *Journal of Policy Modelling* 23 (6) 651-658
- Danek, J., (2013). *The role of demilitarization in promoting democracy and prosperity in Africa*, in Brauer, J and Dunne, J, eds, Arming the south, Palgrave, London: 15-33.
- Deger, S. & Sen, S., (1995). Military expenditure and developing countries. *Handbook of defense economics*, 1,pp.275-307.
- Deger, S., & Smith, R., (1986). Military Expenditures and Growth in Less Developed Countries. *Journal of Conflict Resolution*, 27(1), pp. 335–353.

- Dunne, J., and Uye, M., (2010). *Defence spending and development*. Department of Economics, British University in Egypt and University of the West of England. A paper is based on work undertaken for Oxfam.
- Dunne, J.P., Smith, R.P. & Willenbockel, D., (2004). Models of military expenditure and growth: A critical review. *Defense and peace economics*, *16*(6), pp.449-461
- Enimola, S.,(2008). Defense Expenditure and Economic Growth: The Nigeria Experience 1977-2006. Unpublished MSc thesis at Department of Economics, Adekunle Ajasin University P.M.B 001, Akungba Akoko.
- Enimola, S.S. & Akoko, A., (2011). Defense expenditure and economic growth: The Nigerian Experience: 1977-2006. *Botswana Journal of Economics*, 8(12), pp.26-44.
- Ferda, H. (2004). Defense Spending and Economic Growth in Turkey: An Empirical Application of New Macroeconomic Theory. *Review of Middle East Economic and Finance* vol 2, no3, 193-206.
- Galvin, H. (2003). The Impact of Defense Spending on Economic Growth on Developing Countries: A Cross Section Study, *Defense and Peace Economic* 14(1) 51-59.
- Gujarati, D. N. (2003). *Basic Econometrics*, 4th edition, New York: McGraw-Hill Higher Education. New York, USA.
- Harris, G., (2004). Military expenditure in Sub-Saharan Africa: Why guns cost more than butter. FMF Monograph No. 39, first published in November 2004 by The Free Market Foundation.
- Jeffery, K., & Edward K. (2008). Bringing the Military Back in Military Expenditure and EconomicGrowth 1990-2003. *Journal of World system Research*, Vol xiv(2), 142-172.
- Khalid, M.A. & Mustapha, A.B., (2014). Long-run relationships and causality tests between military expenditure and economic growth in India. *The Economics and Finance Letters*, *1*(6), pp.49-58.
- Kalyoncu, H., and Yucel F. (2005). An Analytical Approach to Defence Expenditure and Economic Growth: The Case of Turkey and Greece. *MPRA Paper* no 4262.
- Mints, B. U. and Stevenson T. (1995). Public education and defence spending in Nigeria: Implications for economic growth, *Journal of Educational and Social Research*. 2 (1), 1-12
- Odusola, F.A. (1990). Military Expenditure and Economic Growth in Nigeria. *Nigeria Journal ofEconomic and Social Studies* 38 (1).
- Olofin, O. (2012). Defense Spending and Poverty Reduction in Nigeria. *American Journal of Economics*, 2012, 2(6): pp. 122-127. <u>https://doi.org/10.5923/j.economics.20120206.05</u>
- Oriavwote, E. V. & Eshenake, S. J. (2013). A vector error correction modeling of security spending and economic growth in Nigeria, *Accounting and Finance Research*. 2 (2).

- Oshio, E. (2009). *The Challenge of National Security and Development*, Being a Paper Delivered at the Delta State Christian Professional League Seminar on Crisis Management and Nation Building at Grand Hotel, Asaba, on Thursday, 19th November
- Otto, G. & Ukpere, W. I. (2012). National security and development in Nigeria, *African Journalof Business Management*. 6 (23), 6765-6770
- Smaldone, W. (2005). Insecurity and investment: A Focus on air transport investment in Nigeria, *Journal of Economic Development*. 29 (11), 942 969.
- Tiwari, A. & Shahbaz, Y. (2011). Regression analysis of health and defense expenditure on economic growth in Nigeria, *International Journal of Peace and Conflict Studies* (IJPCS), 4(2):53-64
- Wagner, A. (1958). Finanzwissenschaft (3ed) partly reprinted in R.A Musgrave and A.T peacock (ed) the classics in the theory of public finance, Macmillan, London 1958.
- Wilkins, J., (2004). Military expenditure and economic growth in Middle Eastern countries: A dynamic panel data analysis, *Defence and Peace Economics*, *16* (4), 283-29.