

An Empirical Analysis of Fiscal Expansion on Defence and Economic Growth in Nigeria

Bridget Ngodoo Mile & Philip Terhemmen Abachi

Department of Economics,
Benue State University, Makurdi
Corresponding Author: Victor Ushahemba Ijirshar

ABSTRACT

This paper examines the relationship between fiscal expansion on defence and economic growth in Nigeria for the period 1981-2011. It is bore out of the fact that it is difficult to say whether the ever increasing rate of defence expenditure over the years has impacted positively or negatively on the economic growth in Nigeria. A number of macroeconomic variables such as RGDP (Real Gross Domestic Product, proxy for Economic Growth), LAFOR (Labor Force), DEXP (Defence Expenditure), GFCF (Gross Fixed Capital Formation) and FDI (Foreign Direct Investments) formed the model for the study as well as a strategic and political variable included as a dummy to capture the regime effect of both the military (16 years) and civilian (14 years) leadership in Nigeria within the study period. The Augmented Dickey-Fuller and Engle-Granger Co-integration Tests as well as the Granger Representation Theorem were employed to model the series. Both long and short run relationship among variables were established. The major finding of the study is that there exist a positive and significant relationship between defence expenditure and economic growth; As a result, the study recommended increased government spending on productive defence expenditure, adequate utilization of funds made to the defence sector and reduced spending on protective defence expenditure without wastage.

Keywords: Defence expenditure, Economic growth, Labor force, GFCF, FDI

INTRODUCTION

In the Keynesian Submission, defence expenditure which is an integral part of government expenditure serves as an injection into the economy, and as such could positively stimulate the economy through the multiplier mechanics (Enimola and Akoko, 2009). It is argued that with increases in defence expenditure, economic growth can be promoted by increasing human capital capabilities of the workforce through provision of education where the military industries may provide valuable skill and as well, create

employment opportunities. There are also externalities in defence expenditure that are crucial to economic growth like the provision of security, road infrastructure, schools, houses, hospitals, etc. which can be used by both the military and civilian. On the other hand, studies also suggest the existence of a negative relationship between defence expenditure and economic growth through a crowding out of investment, for instance, its indirect effect of lowering saving rates in the economy (Deger, 1986).

In Africa, and Nigeria in particular, as everywhere else, defence expenditure not only competes with other government spending programmes, but also affects the allocation of available public goods and broaden socio-economic conditions (Egwaikhide and Ohwofasa, 2009). Though Nigeria continues to experience increases in defence expenditure over the years, which affects the economy either positively (through the expansion of aggregate demand and increased security) or negatively (by crowding out public sector investment). Literature has established through increasingly supported evidence that theoretically, there is no definite prediction of the direction of causation or nature of the relationship between economic growth and defence expenditure. However, one can identify two opposing views of the relationship between defence expenditure and economic growth; the first view, believes in the positive trade-off while the second believe in a negative trade-off. Empirical works in Nigeria also suggest that the relationship is contestable. Whereas Olaniyi (1993), Egwaikhide and Ohwodasa (2009) and Anyanwu and Aiyedogbon (2011) used socio-economic variables and found a positive relationship between the two; Odusola (1996) established a negative relationship between defence expenditure and economic growth in Nigeria with the use of socio-economic variables too but there are other determinants of defence expenditure like strategic and political variables (Collier and Hoeffler, 2007; Collier and Rohner, 2008).

Given that previous works lack consensus result, there is the need to provide further evidence about the relationship; the concern of this paper is to further provide evidence on the nature as well as the direction of causation between defence expenditure and economic growth in Nigeria by extricating the other dimension of defence expenditure which has not only economic factors but as well, strategic and political factors. The paper is organized as follows, section one is introduction, section two contains a review of related literature and theoretical framework. Section three

provides study methodology, while section four discusses result / findings. Section five is conclusion and recommendations.

Defence Expenditure and Economic Growth Conceptualized

Defence expenditure, according to Mueller and Atesoglu (1993), is that expenditure by a national government to control those domestic and foreign conditions that the public opinion of that country believes necessary to enjoy its own self determination or autonomy, prosperity and wellbeing. Corollary, Galvin (2003), believes that the expenditure pattern of the government on defence reflects the amount of security in place and the perception of government about the weight of security issues in the country if the expenditure pattern is effective. Defence expenditure of a country often reflect how much it perceives the likelihood of threats against it or the amount of aggression it wishes to employ. It also provides an idea of how much finances could be provided for by a country for its upcoming year on defence (Arthur, 1994). In this light, the European approach towards defence expenditure as laid down in the European Parliament's resolution of 2004 that; defence expenditure should properly take into account both the influence of issues of political concern (e.g violation of human rights, willful discrimination against particular group of people, the existence of repressive regimes) and the wide range of socio-economic and strategic factors (e.g poverty, scarcity of natural resources, inequitable trade relations, threat and wars) in contributing to existing regional conflicts, the failure of states and the emergence of criminal and terrorist networks.

Devarajan, Swaroop and Zou (1996) classified defence expenditure into productive (capital) and protective (recurrent) expenditures. To them, productive expenditures are in the nature of investments while protective expenditures are in the nature of consumption.

For this research work, defence expenditure refers to all government spending on defence. In other words, it is that portion of tax revenue allocated to the defence sector for the provision of security. For emphasis, this work assumes defence expenditure to provide both internal and external security in Nigeria.

According to Kindleberger (2003) in Todaro and Smith (2009), economic growth means more output. It may well involve not only more output derived from greater amount of inputs but also greater efficiency. That is, an

increase in output per unit of input. It is also related to a quantitative, sustained increase in a country's per capita output or income accompanied by expansion in its labor force, consumption, capital and volume of trade. Economic growth is traditionally assumed to be a necessary condition for development of any country. According to Todaro and Smith (2009), economic growth is the steady process by which the productive capacity of the economy is increased over time to bring about rising levels of national income. Similarly, it can as well be seen as a persistent rise in the national income over a range of time of economy's capacity to produce those goods and services needed to improve the wellbeing of the citizens in an increasing number of diversity.

Thus to the researcher, economic growth is a process by which a nation's wealth increases over time. In other words, it is that physical and quantitative increase in the capacity of an economy to produce goods and services, compared from one period of time to another and the most widely used measure of economic growth is the rate of growth of the economy's Gross Domestic Product (GDP).

THE IMPACT OF DEFENCE EXPENDITURE ON ECONOMIC GROWTH

The impact of a country's decision to raise her expenditure on defence and the resultant effect on economic growth can either be positive or negative: Some positive impacts are;

1. **Research and Development in the Defence /Sector:** This according to Mueller and Atesoglu (1993), may have impact through externalities on the civilian part of the economy. It creates social infrastructure and other forms of public goods as well as technological innovations with broader applicability, enhancing economic growth. To Deger (1986), defence expenditure on R&D may help in creating socio-economic structure conducive for growth in the Less Developed Countries as it provides infrastructure, technical skills and educational training with broader applicability that can enhance more widespread production necessary for economic growth and development. Also, Al-jarrah (2005), argued that the general technology level of a country may be upgraded through the transfer of defence technology from R&D, which may lead to human capital improvement.
2. **Security:** Defence expenditure provides security which promotes a stable business environment, a necessary condition for encouraging investment. It also enforces the property rights and market dynamics

that produce growth in a global capitalist system (Brasoveanu, 2008). He further noted (Brasoveanu, 2010) that the major duties of the states are that of (1) protecting the society from violence and invasion of other independent societies and (2) protecting, as far as possible, every member of the society from the injustice or oppression of every member of it. In many developing countries, war, corruption and insecurity are major obstacles to development.

3. **Demand:** A rise in demand according to Benoit (1978), leads to an increase in the utilization of idle capital, higher employment and profits hence, higher investment (Keynesian effect), all of which causes economic growth. Defence expenditure may be considered a fiscal policy tool and can therefore be increased to stimulate demand or decreased to dampen demand. This impact depends on the multiplier effect, assuming there is no corresponding increase in taxation to finance the spending or expenditure and the extent of crowding out caused by the expenditure (Dunne and Skons, 2010).
4. **Labor:** Defence expenditure may increase the skill set of the population through training and education of military personnel. It has a growth-stimulating effect if it moves the economy closer to full employment, creates human capital, promotes stability, and provides infrastructure. It is often argued by defence economists like Benoit (1978), Mueller and Atesoglu (1993) and others, that expenditure on defence training in developing countries may contribute to improving the educational level of the labour force and may act as a stabilizing influence in the society.
5. **Investment:** Investment in the defence sector generates positive externalities for the civilian sector, like public infrastructural development, technology spillovers and human capital formation (Ando, 2008; Dunne and Nikolaidou, 2011).

The Negative Impacts of Defence Expenditure on Economic Growth are:

1. **Macroeconomic Imbalances:** If a rise in defence expenditure, say, cannot be financed through taxation, it will create a deficit. This may be financed in four different ways; printing money, using foreign exchange reserves, borrowing abroad and borrowing domestically. These methods of deficit financing are associated with different macroeconomic imbalances; money printing with inflation; foreign exchange reserves use with the onset of exchange crises; foreign borrowing with an external debt crises; domestic borrowing use

influences interest rate which may feedback on investment (Dunne,2010).

2. **Crowding out Effect:** Higher defence expenditure to Mintz and Huang (1991) can generate a distortion in resources allocation and the diversion of resources from productive activities to the accumulation of armaments and the maintenance of military forces. The International Monetary Fund (IMF) in (Kentor& Kick, 2008) claims that, in general; defence expenditure reduces resources available for investment in productive capital, education and market-oriented technological innovation.
3. **Opportunity Cost:** Economists like Sezghin and Yildrin (2002), Galvin (2003), focused on the opportunity cost of defence expenditure. To them, defence expenditure hinders economic growth and development by reducing savings and misallocating resources away from more productive use in the public or private sectors. In the same context, R & D in the defence sector may divert R & D from the private sector where it may receive more practical application
4. **Increased Taxation:** The government budget constraint requires that an increase in defence expenditure should be financed by cuts in other public expenditure, increased taxes, increased borrowing or expansion in money supply (Brasoveanu, 2008).
5. **Increase Political Power of the Military:** Defence expenditure may be driven not by security needs, but by a rent seeking military industrial complex, and may cause arms races or damaging war. Many of these effects are contingent, depending on the degree of utilization, the externalities from defence expenditure and the effectiveness in countering the threat (Kentor and Kick 2008).

THEORETICAL FRAMEWORK

The Neoclassical Growth Model

The neoclassical economists like Feder (1982), Biswas and Ram (1986), see defence expenditure as a pure public good supplied by the state, which recognizes some well defined national interest that it seeks to protect. So the state can appear as a rational actor that tries to maximize national interest by balancing opportunity costs and security benefits of defence expenditure. Defence expenditure can then be treated as a pure public good and its economic effects are determined by its opportunity cost, with a clear tradeoff between civil and military spending. The most influential neoclassical

models of economic growth are the Feder-Ram, Solow and the Endogenous Models (Biswas and Ram, 1986);

The Feder-Ram Model

This model was originally developed to analyze the impact of the export sector on economic growth in developing countries by Feder (1982) and was expanded by Biswas and Ram (1986) to include a defence expenditure variable in their cross section study of 58 LDCs over the period of 1960 - 1977. Using this model allows the externality effect of the defence sector and its differential productivity effect to be distinguished within a single-equation model. This apparent advantage has led to it having a profile within the defence economics area well beyond what it has achieved in other areas.

The Solow Defence Growth Model

Dunne and Skons (2010) argued that the problem of multicollinearity and identification of composite coefficients associated with the Static Feder-Ram model are serious enough to limit its value in empirical work and so suggested the Augmented Solow Defence-Growth Model. This excludes civilian output and as well, excludes the externality effects of defence reducing the possibility of multicollinearity.

EMPIRICAL REVIEW

Brasoveanu (2010) in his study of the defence growth relationship in Romania for the period 1990-2007 using cluster an regression analysis, found a negative impact of defence expenditure on economic growth in Romania. To him, a potential cause of the negative impact is the high proportion of the spending on equipment and other operational spending.

Dunne (2010) using the Feder-Ram and modified solow models for 17 OECD countries showed poor results for the Feder- Ram model, more promising result for new growth model while both the exogenous growth model study 17 countries and the endogenous growth model of Africa suggested a negative relationship of defence expenditure and economic growth.

Yildirim, Ocal and Keskin (2011) analysed the influence of military expenditure on economic growth in a global perspective for the time period of 2000-2008 taking partial dimensions into account. Both the Feder-Ram and the Augmented solow models were employed using the cross- sectional data relating to 133 countries. Their results showed that military expenditure has a positive effect on economic growth.

Dimitraki and Liu (2011) examined the military expenditure-Economic growth nexus in China for the period between 1980 and 2011 by using annual military data collected by Shambaugh. Their findings indicate that military spending has an overall net positive impact on economic growth.

Dunne and Nikolaidou (2011) investigated defence spending and economic growth in the EU15 countries over the period 1961-2007. Evidence derived from both panel and time series method is consistent and suggests that defence spending does not promote economic growth in the region. In Nigeria, many authors have attempted to examine the relationship between defence expenditure and GDP.

Kentor and Kick (2008) using cross national panel regression and casual analysis of Developed and Less Developed countries from 1990-2003 showed that defence expenditure per soldier inhibit the growth of per capita GDP especially in the LDCs. The inhibition is manifested in the slowing down of the expansion of the labour force. According to them, labour intensive militaries may prove a pathway for upward mobility, but comparatively capital intensive military organization limit entry opportunities for unskilled and under or unemployed labor. They equally argued that deep investment in defence hardware also reduce the investment capital available for more economic productive opportunities.

Enimola and Akoko (2009) presents empirical evidence on the relationship between the level of economic growth and defence expenditure in the case of Nigeria from the period of 1977-2006 using the Feder-Ram Model, found a unidirectional causality running from economic growth to defence expenditure. The study suggested that for Nigeria, a policy of increasing defence budget to promote growth might be inappropriate.

Egwaikhide and Ohwodasa (2009) investigated the relationship between defence expenditure and economic growth in Nigeria from 1977-2007 using the Feder-Ram model defence expenditure was disaggregated into current and capital components and were estimated against savings, investment, and economic growth proxied by the GDP. The results revealed a positive relationship.

Also, Anyanwu and Aiyedogbon (2011) in their study of the defence expenditure and economic growth relationship in Nigeria from the period of 1980 to 2010, using the Feder Ram/Deger model showed the results that there is a positive relationship between defence expenditure and GDP in the long run as well as the short run.

Fefa and Irefin (2013) in their study of the cost of insecurity on emerging economies using the Nigerian experience for the period of 1986-2011, found that increases in defence expenditure can reduce insecurity and leads to economic growth.

Model Specification

This study used the model developed by Feder-Ram (1986) and adopted by Odusola (1996), Egwaikhide and Ohwofasa (2009) as well as Anyanwu and Aiyedogbon (2011). It was modified to include a dummy variable (REGEF) that captured the strategic and political effect of military government that was in power between the periods of 1983-1999.

Hence, the explicit model is stated as:

$$RGDP = \alpha_0 + \beta_1DEXP + \beta_2LAFOR + \beta_3GFCF + \beta_4FDI + \beta_5REGEF + \varepsilon$$

Where:

RGDP = Real Gross Domestic Product.

DEXP = Defence Expenditure.

LAFOR = Labor Force.

GFCF = Gross Fixed Capital Formation.

FDI = Foreign Direct Investment.

REGEF = Regime Effect (Dummy variable for Military 1, and 0 if civilian).

ε = Stochastic variable/error term.

α_0 = Intercept.

β_1 - β_5 = Parameters.

The '*apriori*' expectation provides that all the coefficients of the variables in the model are positive, and the error term does not exhibit any element of serial correlation.

Sources of Data

Data for this study were sourced from Central Bank of Nigeria (CBN) Statistical Bulletin (various years) and CBN Annual Report and Statement of Accounts. Other sources of data are publications, websites, journals, textbooks and seminar papers.

Method of Data Analysis

The Pairwise Granger Causality Test was used to determine the causal relationship of variables under study. The Augmented Dickey Fuller (ADF) Unit Root Test was used to test for the stationarity of the data set. The Engle-Granger Co-integration Test was used to check the existence of long run relationship among variables in the study. In a similar way, the short run dynamics was done using Granger Representation Theorem. Data were estimated using Eviews 7.0.

Table 1 Granger Causality Analysis.

Null Hypothesis:	Obs	F-Statistic	Prob.	Decision
DEXP does not Granger Cause RGDP	29	7.35478	0.0009	Rejected
RGDP does not Granger Cause DEXP		5.31442	0.0123	Rejected
LAFOR does not Granger Cause RGDP	29	1.11541	0.3442	Accepted
RGDP does not Granger Cause LAFOR		11.2892	0.0004	Rejected
GFCF does not Granger Cause RGDP	29	3.06709	0.0353	Rejected
RGDP does not Granger Cause GFCF		2.82860	0.0789	Accepted
FDI does not Granger Cause RGDP	29	0.32288	0.7272	Accepted
RGDP does not Granger Cause FDI		11.6617	0.0003	Rejected
REGEF does not Granger Cause RGDP	29	1.11848	0.3432	Accepted
RGDP does not Granger Cause REGEF		3.46306	0.0477	Rejected

Source: Eviews 7.0 output, 2014

The results of Granger Causality from Table 1 revealed a bi directional causality running between defence expenditure and economic growth. This is in agreement with the findings of Olaniyi (1993) for Nigeria but do not agree with the findings of Enimola and Akoko (2009) for Nigeria. Similarly, there is a unidirectional causality running from economic growth to labor force; from Gross Fixed Capital Formation to economic growth; from economic growth to Foreign Direct Investment and as well, economic growth to Regime effect.

Table 2: ADF Unit Root Test

Variables	ADF Test Statistic	5% critical value	Order Of integration
RGDP	-3.686676	-2.967767	I(1)
REGEF	-5.196152	-2.967767	I(1)

LAFOR	-10.90566	-2.971853	I(2)
FDI	-4.137221	-2.967767	I(1)
DEXP	-7.030881	-2.971853	I(1)
GFCF	-3.720396	-2.976263	I(1)

Source: Extract from Eview’s Output

The result from Table 2 reveals that all the variables were not stationary at levels. RGDP, REGEF, FDI, DEXP and GFCF are stationary at first difference while LAFOR is stationary at second difference. Thus, granted that the absolute values of ADF test statistic for all the variables are greater than their 5% critical values, we reject the null hypothesis that all the variables have no unit root.

In order to ascertain whether long-run relationship exist between the explanatory variables and the dependent variables, under the Engle-Granger cointegration approach(because of the mixed order of integration of the variables), an ADF test was performed on the residuals to determine if it is stationary. The result is presented below;

Table 3: ADF showing Long-Run Relationship

Variable	ADF statistic @ Level	Critical Value			Order of Integration	Of prob
		1%	5%	10%		
Residual	-4.693027	-3.670170	-2.963972	-2.621007	1(0)	0.0044

Source: Extract from Eviews Output

From the table above, the absolute value of the calculated ADF of the residual (-4.693027) is greater than the critical values at the three levels of significance (-3.670170, -2.963972 and -2.621007 respectively for 1%, 5% and 10%). Therefore, the null hypothesis of non-stationary residual is rejected and we concluded that, the error term is stationary and the variables under study are co-integrated. The implication is that there is a long-run relationship between labor-force (LAFOR), Gross Fixed Capital Formation (GFCF), Foreign Direct Investment (FDI), Defence Expenditure (DEXP), Regime Effect (REGEF) and GDP in Nigeria.

Table 4: Short-run Relationship through Granger Representation theorem
Dependent Variables RGDP

Variables	Coefficient	Std. Error	t-statistic
LAFOR	-0.990452	0.237543	-4.169569

GFCF	0.296679	0.054079	5.486018
FDI	1.098470	0.459284	2.391701
DEXP	0.615690	0.111187	5.537428
REGEF	0.060130	0.056280	1.068456
ECM (-1)	-0.785410	0.214307	-3.664883
C	2.133245	0.096107	22.19665
R-squared	0.838108		
Adjusted R-squared	0.725729		
Akaike info criterion	-6.214224		
Schwarz criterion	-5.936678		
F-statistic	75.78551		
Prob (F-statistic)	(0.00000)		

Source: Extract from Eviews Output

Table 4 above reveals that there is a negative but significant relationship between labor force (LAFOR) and economic growth in Nigeria for the period under study, that is, a unit increase in labor force will lead to 0.990 decreases in real GDP of the Nigerian economy. This evidence is contrary to 'a priori expectation' for the study. The implication is that, increase in labor force will lead to increase in the manpower that is critical to the economic activities that translate to increased output. However; the negative effect on economic growth could be that the increases in LAFOR by the Federal government of Nigeria within the study period crowded out through increased wages/salaries, its contribution to economic growth.

Also, GFCF, FDI, DEXP, and REGEF have a positive and significant relationship with GDP in Nigeria. That is, a unit increase in GFCF, FDI, DEXP, and REGEF will lead to 0.297, 1.098, 0.616 and 0.061 respective increase in the real GDP. This is so because increase in the stock of investment, investment portfolio, and defence expenditure, will increase employment output and consequently economic growth will take place.

The ECM (-1) which measures the speed of adjustment is in line with the a' priori expectations, that is, -0.785, and it is statistically significant. This implies that, if there is any disequilibrium in the short-run, it will annually adjust by 78.5% to reconverge to the equilibrium in the long-run. The adjusted R-squared of 0.726 implies that the explanatory variables of the model explain variations in the GDP by 72.6%. Both the Akaike information criterion and Schwarz criterion are negatively low, which is -6.214224 and -5.936678, respectively; the two measures the efficiency of parameterized model in terms of its reactive powers in order to minimize the degree of

information lost. This as well means there is good performance of the estimated model. The F-statistic of 75.78551 is statistically significant; this shows the goodness of fit of the model. The implication is that the joint effect of explanatory variables on the dependent variables (GDP) is very high.

Findings

The study found bidirectional causality between defence expenditure / economic growth and unidirectional causality among the other study variables to the dependent variable. From the Unit Root Test, all the variables used in the analysis are stationary at first difference except LAFOR, which is stationary at second difference. With the mixed order of integration, the Engle-Granger co-integration technique; a test suitable for discordant order of integration among variables, was used and the results revealed a stationary error term implying that variables under study were co-integrated. That also meant the existence of a long run relationship among variables studied.

With regards to the short run dynamics of variables, the Granger-Representation Theorem was used and the results revealed a positive and significant relationship between DEXP, FDI, GFCF, REGEF and RGDP, but a negative and yet, significant relationship between LAFOR and RGDP. This is confirmed by the ECM (-1) value which means that for any disequilibrium in the short run, it can be annually adjusted to achieve equilibrium in the long run. In other words, the explanatory variables of the study show a considerable high speed of adjustment to long run equilibrium every year in case of shock in the short run. Corollary, the adjusted R squared shows that the explanatory variables explain variations in RGDP. These results are in line with the findings of Enimola and Akoko (2009). Anyanwu and Aiyedogbon (2011) but slightly different from findings of Fefa and Irefin (2014); who found a positive relationship of the explanatory variables DEXP, GCFC and INSEXP but a negatives correlation of the explanatory variables FDI to the dependent variable, RGDP.

The study results as well, contradict the current debate which advocate a negative relationship between defence expenditure and economic growth, hence the reduction in defence expenditure and for such funds to be diverted to other essential social service such as education, health, housing etc which; Galvin, (2003); Brasoveanu, (2010); Dunne, (2010); Dunne and

Nikolaidou (2011) opined that increase the citizens' welfare. The findings here are contrary to the works of authors such as Odusola (1996) and Egwaikhide and Olwofasa (2009)'s findings on Nigeria.

CONCLUSION

The study concluded that the impact of defence expenditure on economic growth is significantly positive in both the short and long-run. Since there is causality between defence expenditure and economic growth, it will be fair to say that the contribution of the defence sector through its expenditure on the provision of housing, clothing, education, training, medical care, income and security in a manner which could not otherwise be possible to the Nigerian economy has been beneficial to her economic growth.

RECOMMENDATION

Based on the above findings and conclusion, the following recommendations are made:

1. For meaningful growth and development, the structure of defence expenditure must be in favor of productive expenditures like job creation, capital and technological development which raise the productivity of labor and increase the growth of national output. Similarly, expenditure on infrastructure which create conducive environment for Foreign Direct Investment and industrialization at reduced production cost, increase private sector investment as well as increase the profitability of firms to occur in an economy; this fosters economic growth.
2. The Nigerian government at all levels as well as key actors in policy formulation should adopt strong policy measures like the European approach towards defense expenditure as laid down in the European parliament's resolution of 2004. They should devise more holistic approach to tackling the state of insecurity by entrenching the culture of transparency, such that funds allocated to the defence sector are effectively and efficiently utilize for equipping the security system to meet the present challenges and as well, create a conducive and secured environment for socio-economic and political activities to strive fairly in Nigeria. Although, the link between transparent spending in these areas and economic growth is not automatic, it however, depends largely on the ability to achieve the envisaged outcomes (like higher education attainment, job creation, more

investment in R & D) and overcoming existing challenges without creating new distortions.

3. Since insecurity in Nigeria is caused by socioeconomic, strategic and political variables, the government should ensure that protective/unproductive defense expenditures are properly managed in a manner that they meet just the country's need for them and are not used by government officials and continue to remain in power by increasing expenditures on operations, arms importation and projects that private sector can produce more efficiently. These activities produce misallocation of resources and so, impede economic growth. Empirically, increased allocation of funds to protective defence expenditure should be premise on the vital role the sector is playing at the moment in maintaining peace in 'hot sports' of the northern and eastern parts of Nigeria.

REFERENCES

- Al-Jarrah, M. (2005). "Defence spending and economic growth in an oil-rich country: The case of Saudi Arabia". *Pakistan Economic and Social Review*.63(2): 151-166.
- Ando, S. (2008) "The impact of Defence Expenditure on the Economic Growth: Panel Data Analysis based on the Feder Ram Model. Graduate School of Commerce, Meji University. Tokyo-Japan; Available at <http://www1.doshisha.as.jp/>
- Anyanwu, S. and Aiyedogbon, J. O. (2011). "Defence Expenditure and Economic Growth in Nigeria: A Vector-Error Correction Model (VECM) Approach". *Asian Journal of Empirical Research*, Vol. 1, No. 2: 31-40.
- Arthur, J. M. (1994). "Military Expenditure and National Economic Performance: A Review of Recent Theoretical and Empirical Studies". *Serie de Ensayos y Monografias*. Vol.1. No. 69; 1-34.
- Benoit, E. (1978). "Growth and Defence Expenditure". *Economic Development and Cultural Change*. Vol. 26. No. 2: 27 1-280

Brasoveanu, L. O. (2008). *Impactul Politici: Fisclae Asupra cresterii Economice – The Impact of Fiscal Policy on Economic Growth*. Editura ASE, Bucharest.

Brasoveanu, L. O. (2010). "The Impact of Defence Expenditure on Economic Growth". *Romanian Journal of Economic Forecasting*. Vol. 13, No. 4: 148-168.

Biswas, R. and Ram, R. (1986). "Military Expenditure and Economic Growth in Less Developed Countries: An Augmented Model and Further Evidence". *Economic Development and Cultural Change*. Vol. 34. No. 2:361-372.

Central Bank of Nigeria (2009). *Statistical Bulletin*.

Central Bank of Nigeria; *Annual Report and Statement of Accounts of various years*.

Collier, P and Hoeffler, A (2007). "Military Expenditure in Post-Conflict Societies". *Economics of Governance*. Vol.7, No. 1: 89-107.

Collier, P and Rohner, D. (2008). "Democracy, Development and conflict". *Journal of European Economic Association*. vol.6, No. 2-3: 531-540.

Deger, S. (1986). "Economic Development and Defence Expenditure". *Economic Development and Cultural Change*. Vol. 35. No. 1: 179-196.

Devarajan, S., Swaroop, V. and Zou, H. (1996). "The Composition of Public Expenditure and Economic Growth". *Journal of Monetary Economics*, Vol. 37: 313-344.

Dickey, D. A. and Fuller, W. A. (1979). "Distribution of the Estimators for Autoregressive Time Series with a Unit Root". *Journal of the American Statistical Association* Vol. 76. No.366: 427-431.

- Dimitraki, Ourania and Liu, Guy (2011). "The Military Expenditure-Economic Growth Nexus: Evidence from China, 1950-2011". *Journal of Economic Studies*, Vol. 20, No. 1: 37-43.
- Dunne, J. P. (2010). "Military Expenditure and Granger Causality: A Critical Review. Discussion Paper, No. 1007. University of the West of England, Department of Economics.
- Dunne, J. P. and Skons, E. (2010). "Military Industrial Complex". In *Global Arms Trade*. Edited by Andrew Tan. London: Routledge.
- Dunne, J. P. and Nikolaidou, E. (2011). "Defence Spending and Economic Growth in the EU15. Discussion paper, *Fourteenth International Conference on Economics and Security*.
- Egwaikhide, C. I. and Ohwofasa, B. O. (2009). "An Analysis of Military Expenditure and Economic Growth in Nigeria, 1977- 2007". *The Academy Journal of Defence Studies*, Vol. 6, No. 1.
- Engle, R. F. and Granger, C. W. (1987). "Co-Integration and Error Correction: Representation, Estimation and Testing". *Econometrica*. Vol. 55. No. 2: 251-276.
- Enimola, S. S. and Akoko, A. (2009). "Defence Expenditure and Economic Growth: The Nigerian Experience - 1977-2006". *The Academy Journal of Defence Studies*, Vol. 6. No.1:26-44.
- Fefa, J. and Irefin, D. (2013) "The Cost of Insecurity on Emerging Economies; The Nigerian Experience". *American Academic and Scholarly Research Journal*, Vol.6, No2:
- Feder, G. (1982). "On Exports and Economic Growth". *Journal of Development Economics*. Vol. 12, No. 1:59-73.
- Feder Ram (1986). "Government Size and Economic Growth ; A New Framework and Some Evidence from Cross Section and Time Series Data". *American Economic Review*. Vol. 76, No. 1 :191-203.

- Galvin, H. (2003). "The Impact of Defence Spending on the Economic Growth of Developing Countries: A Cross Section Study". *Defence and Peace Economics*, Vol. 14, No.1: 5 1-59.
- Granger,C.W.J. (1988). "Some Recent Development in a Concept of Causality". *Journal of Econometrics*. Vol.36, No.2:67-83.
- Kentor, J. and Kick, T. (2008). "Bringing the Military Back, in Military Expenditures and Economic Growth, 1990-2003". *Journal of World-Systems Research*, Vol. 14, No.2.Pages 142- 172.
- Keynes, J. M. (1936). *The General Theory of Employment, Interest and Money*. London: Macmillan, Cambridge University Press.
- Mintz, A.and Huang, C. (1991). "defence Expenditure and Economic Growth; The Externality Effect". *Defence Economics*. Vol.3, Vol.2:35-40.
- Mueller, M.J. and Atesoglu, H.S. (1993). "Defence Spending, technological change and economic growth in the United State". *Defence Economics*, Vol4, No 1. 259-269.
- Odusola, F. A. (1996). "Military Expenditure and Economic Growth in Nigeria". *The Nigerian Journal of Economic and Social Studies*, Vol. 38, No.1 :2-3.
- Olaniyi, O. (1993). "Nigeria Nation Defence and Economic Development: An Impact Analysis". *Scandinavian Journal of Development Alternative*, Vol. XII:2-3.
- Sezghin, S. and Yildirim, J. (2002), "The Demand for TurkushDefence Expenditure" *Defence and Peace Economics*.Vol 13, No 2; 121-128.
- Todaro, M. P. and Smith, S. C. (2009). *Economic Development*. England: Pearson Education Ltd., 10 edition, 110-156.
- Yildirim, J., Ocal, N. and Keskin, H. (2011). "Military Expenditure, Economic Growth and Spatial Spillovers: A Global Perspective". International Conference on Applied Economics – ICOAE 2011.Pages 811-821.