

Impact of Government Security Expenditure on Crime Rate in Nigeria

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ABSTRACT

This paper examined the impact of government security expenditure on the crime rate in Nigeria, with a view to revealing how government recurrent and capital expenditures on security affect the crime rate in Nigeria. The major source of data was secondary, specifically the Central Bank of Nigeria (CBN) Statistical Bulletin and the annual reports of the Institute for Economics and Peace. The original functional model of Mohammed and Abu (2016) was adapted, using Ordinary Least Squares (OLS) as the estimation technique. However, the natural logs of the data for the dependent variable, Global Terrorism Index (GTI), and the independent variables, Government Capital Expenditure (GCAPEX) and Government Recurrent Expenditure (GREXP), except inflation, were taken before carrying out the analysis, so as to reduce the impact of outliers dominating the OLS estimates and to stabilize variance across levels by correcting heteroscedasticity. The results of the estimated regression model reveal that two of the independent variables, total capital expenditure and inflation, maintain a negative relationship with the crime rate in Nigeria (proxied by the Global Terrorism Index), while government recurrent expenditure (GREXP) maintains a positive relationship with GTI. The results imply that a 1% increase or decrease in GCAPEX caused about a 26% increase or decrease in the average crime rate in Nigeria. Similarly, a 1% increase in inflation (INFL) brought about a 1.3% decrease in the average crime rate in Nigeria, and vice versa. This result thus implies that if government increases capital expenditure in the security sector, the crime rate would be scaled down; it also means that a high level of inflation is impeding the fight against insecurity in Nigeria. Since capital expenditure has a strong influence in stemming the tide of crime rate in Nigeria, the study therefore recommends that government capital spending on security should be strategically increased without impeding growth and development in other sectors of the economy, and that effective monetary and fiscal policies be put in place to reduce the high inflationary trend in the country.

Keywords— Security, Insecurity, Government Capital Security Budget, Government Recurrent Security Budget, Crime Rate in Nigeria.

I. INTRODUCTION

The 1999 Constitution of the Federal Republic of Nigeria specifically states that “the security and welfare of the people shall be the primary purpose of government”. Unfortunately, government on this constitutional responsibility has failed to provide a secured and safe environment for lives, properties and the conduct of business and economic activities. The alarming level of insecurity in Nigeria has increased the crime rate and terrorists’ attacks in business growth. In order to ameliorate the incidence of crime, the federal government has embarked on criminalization of terrorism by passing the Anti-Terrorism Act in 2011. Despite the government efforts, the level of insecurity in the country is still high, and a confirmation of this is the low ranking of Nigeria in the Global Peace Index (GPI, 2021); by 2022, Nigeria moved up to sixth position, and progressed to eight positions on the list of most terrorized countries in the world (GPI, 2023).

The foregoing rankings and the spate of crimes in Nigeria thus underscore the possible failure of government to live up to its core mandate. It is worthy of noting that the role of government in an economy cannot be over-emphasized and 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 (Galvin, 2003). This established the basis for the economic need of security in countries of the world. Security of persons and property is essential for the operation of markets, and it is incentives to invest and innovate. Lack of peace and security constitute a distortion in economic activities, and this usually results to local and foreign investors being skeptical of investing in the economy leading to a dearth in capital in-flow. Government attention is therefore shifted from more productive sectors to defence sector and a great disorder in the socio-economic structure (Dumas, 2002).

Thus, insecurity in Nigeria has reached an alarming proportion showing its ugly head in various facets of our national life. Lives are lost on daily basis, population depleted, businesses in comatose, investments are nose-diving, multinationals closing shops and vacating the country, unemployment soaring and the populace live in fears. According to Stewart (2004), the economic cost of insecurity are enormous. People who joined the fighting forces, who are killed or flee, can no longer work productively; schools, power stations, and roads that are destroyed reduced the productive capacity of the economy. Further, displacement of people reduces the production of exports, thereby reducing foreign exchange earnings, import potentials and consequently further constraining output, leading to a decline in employment and earnings.

The menace remains a threat to governance and economic growth in Nigeria. Government by their inaction has proved to be unable to solely secure its citizens. Despite government's burgeoning recurrent expenditure on internal security both at the National and State levels, individuals in their various rights, workplaces and houses spend heavily to provide security for their personal lives and properties. Despite these efforts, the menace keeps exacerbating. So, in almost all parts of the country, there exist some levels of insecurity. We have seen instances of ethnic conflicts in some part of the North, kidnapping in almost all parts of the country, but prominent in South-South and West, militancy and pipeline vandalization activities in the Niger delta, terrorism and religious extremism by Boko Haram in North East, agitations for self-determination by IPOB (Indigenous People of Biafra) and MASSOB (Movement for the Actualization of the Sovereign State of Biafra) in South East, herdsmen disturbances in the North and Central, ritual killings in the South West and East and other political and economic disturbances.

In Nigeria, budgeting for defence is to equip and make the defence sector combat ready to surmount the growing insecurity challenges. Most importantly, the Nigerian defence and internal security spending is one of the most resilient spending such that any downward trend in defence and internal security spending results to low performance in the economy. In response to calls for taming insecurity in Nigeria, the federal government through its annual budgets, continue to vote huge allocation to the recurrent component of internal security, military personnel and apparatus have been asked to relocate their bases to the troubled areas to quell crises, and some States have signed into law the Anti-kidnapping Act while the National assembly passed the Anti- Terrorism Act in 2011. Despite these measures, economic indices have not improved and the level of insecurity in the country is still high. A confirmation of this is the low ranking of Nigeria in the Global Peace Index (GPI, 2012) and the current economic crisis the country has been thrown into.

When there is high level of insecurity in the country, no investor will be willing to invest where his investment is not secured. The life and material resources lost to insecurity in the country since the past few years is unquantifiable. An estimated number of about 2,000 lives have been lost to bomb explosion from 2010 till date. According to security information released by Crime Guard, a security monitoring group, there were a total of over 153 successful explosions in the country which claimed several lives and properties and led to closure of many businesses in the country. As a result of insecurity in the country many businesses and companies in their numbers are closing down operations in the north and relocating to other African countries for fear of loss of lives and properties. And the few remaining companies operate on skeletal bases. Insecurity in the country not only affects foreign direct investment and business activities, it also affects business confidence as many companies lost confidence in establishing businesses in some

parts of the country. Also, in spite of the trillions of naira that government has expended in a bid to curb several security challenges that are facing the country, there seems to be no reduction in the security breaches in Nigeria as reports on killings, kidnappings, robberies and other forms of insecurity are daily reported in Nigeria. Therefore, it is imperative to investigate how the huge amount expended so far on security by government has affected the crime rate in Nigeria.

On the basis of the above, this study therefore generally aims to examine the impact of government security expenditure on crime rate in Nigeria and to specifically examine the relationship between government recurrent and capital expenditure on security and crime rate in Nigeria. The study addressed the following research questions in line with the objectives: (i) What is the impact of government security recurrent expenditure on crime rate in Nigeria? and (ii) How does government capital expenditure on security impact crime rate in Nigeria? The study also, conjectured the following null hypotheses:

- i. H01: Government recurrent expenditure on security has no significant impact on crime rate in Nigeria.
- ii. H02: Government capital expenditure on security has no significant impact on crime rate in Nigeria.

The study covers the period of 2000 to 2025, which was chosen because the researcher felt that it would be better to use a period where there is high rate of insecurity in Nigeria, despite increasing budgetary expenditure to defense and security sub-sector of the economy.

II. LITERATURE REVIEW

A. Conceptual Review

(i) Security

According to Mesjaz et al (2014), the English word, “security” was derived from the Latin word “Securus”; “se” means without and “curus” means “uneasiness”. In other words, security means liberation from uneasiness or a peaceful situation without any risks or threats, to feel safe, to be protected. To the ordinary man/woman, security means safety or protection from harm and danger. Security is very important because as Shadare (2011) observes, “unless one can be assured of his physical security, everything else will be meaningless. Moreover, the United Nations Development Programme (1994) viewed security as a safety from such chronic threats as hunger disease and repression. Secondly, the body stated that it means protection from sudden and hurtful disruptions in the pattern of daily life. Whether at home, working places or in the communities. The report identified seven elements that makes up human security: (i) economic security (ii) food security (iii) health security (iv) environmental security; (v) personal security (vi) community security and (vii) political security. It further submitted that anything short of this definition and element is amounts to insecurity.

According to Rothschild (1995), security is an enigmatic concept that meant very different things for people according to their time and place in human history. Imobighe (2001) also adds that it will be difficult for individuals within a State to participate in productive activities without National security. Correspondingly, without security, the state is bound to witness great difficulty in connecting its human development and the promotion of the general well-being of the people. He also adds that without security individuals within a state will find it difficult to engage in productive activities and in the same vein, the state will encounter difficulty in harnessing its human development and the promotion of the general well-being of the people. Williams (2013) defines security as widely associated with mitigating the threat to cherished value, particularly if left unchecked in the near future threatens the existence of a specific referent object. He further says that national security has to do with a situation in which people can travel around within a given natural space or elsewhere without any real and imaginary threats to their lives or properties. A condition where, with their two eyes firmly closed, people will sleep at night. Security of life and property is really the fundamental reason for a government to exist in the first place, as attested by the various theorists of social contracts (Hobbes, Locke, & Montesquieu).

Albert (2003) also sees security as involving the survival of the state and the protection of individuals and groups within the state. He conceived national security as “the relative freedom from harmful threats”. According to him security concept is commonly associated with the alleviation of threats to cherish values, especially the survival of individuals, groups or objects in the near future.

(ii) Insecurity

Insecurity like security is often used in a number of ways. Many people would take it to mean lack of safety or the existence of danger; hazard; uncertainty; lack of trust; doubtful; inadequately guarded or protected; lack of stability; disturbed; lack of protection and unsafe (Achumba, 2013). Insecurity will make you lose trust, be frightened, unsettled, oppressed, lose focus, and be devastated and lose your humanity. Adebajoko and Ugwuoke (2014) opined that insecurity is the State of being subject in every respect to terror, threat, risk, molestation, bullying, and harassment, among others. Insecurity, for example, can be conceived as a threat to the state that often accounted for the arms and nuclear weapons race to protect the state.

From the Encarta dictionary (2009) point of view, insecurity is defined as the state of being unsafe or insecure or a state of mind characterized by self-doubt and vulnerability. It can be anything from childhood, disturbing situations, mistreatment, and individual fears. In Nigeria, Ewetan and Uche (2004) observed that insecurity hinders business activities and discourages foreign and local investors. The work of Adagbami (2013) opined that insecurity is detrimental to general well-being of the people and has led to destruction

of business and properties and relocation of industries. Okereke (2012) stated that human capital investment collapsed and become a threat against the economy due to the attacks on banks, market, parks and government department in northern Nigeria leading to economic backwardness in Nigeria, causing the increase in poverty, unemployment and failure in sustainable human development that is not only prevalent in the northern part but as well as the entire neighboring countries like Chad, Cameroon, Niger and Benin republic.

(iii) Government Expenditure

According to Yilidirim, Sezgin and Ocal, (2005), the security expenditure budget value indicates funds allotted to the maintenance and strengthening of a standing military. Not all included nations have the luxury of a large expenditure budget and therefore must rely on affiliations and regional alliances to maintain a capable fighting force. It involves the running expenses of the defence departments and other governmental agencies engaged in defence projects. Internal security has to do with the protection of the domestic territory and citizens by security agencies such as the police, civil defence, legal vigilante, prisons, etc.

Security expenditure is also an important issue for the international economy. Security expenditure could be measured by the contributions of security to the Nigerian economy. Moreover, security spending includes the payment of the salaries of armed forces personnel, thus enabling them to take care of their basic needs (Beijer, 2010). The security spending also encompasses medical services, education and training of both local and foreign security personnel as well as research and development. The bulk of security spending is on the procurement of materials and equipment such as ammunitions of all categories. While national security and defence can be understood as preparedness for military action, protection of resources considered critical to the functioning of a nation to protect a country from attack or subversion (Otto & Ukpere, 2012).

B. Theoretical Review

(i) Displacement Effect Hypothesis of Peacock and Wiseman

Peacock and Wiseman based on a study entitled "The Growth of Public Expenditure in the UK, 1961", provided an explanation to fluctuations in public expenditure over time. The hypothesis put forward is that public expenditure grows due to growth in revenue. During settled times, people can be expected to develop notions of acceptable rates of taxation. This can be known as the tolerable level of taxation and this level cannot be high. With real economic growth, the more or less stable level of taxation will produce increasing amounts of revenues as well as expenditure. This, however, does not explain the relative increasing growth

in public expenditure. Large scale social disturbances, like wars, influx of refugees change the tolerance limit of people to the burden of taxation which arises as a result of increased spending. The result is called a "displacement effect" which shifts expenditures and revenues to new higher levels. So a displacement effect is created when the earlier lower tax and expenditure levels are displaced by new and higher budgetary levels. Even after the event is over, new levels of tax tolerance change and the society feels 'capable' of carrying a heavier tax burden, such that the level of public expenditure does not return to the low level it was before the event.

The theory has three underlying assumptions, which include: government can always find 'profitable' ways in terms of its votes to expand available fund; citizens in general are susceptible to higher taxes; and government must be responsive to the wishes of their citizens. This implies that during periods of tranquility and relative national peace, the incidence of tax will be fairly stable and consequently reduces the government revenue. However, during periods of national political instability, the tax levels seem to increase (displaced upward) and consequently shifts the government expenditure to a higher trajectory.

(ii) Democratic Peace Theory

According to this theory, security largely depends on encouraging liberal institutions to discharge their responsibilities creditably; and a security policy must have as its long-term the spread of liberalism (Doyle, 1998). Therefore, the route to peace is to encourage democratic system, the universal respect for human rights and the development of civil society. But such conclusion depends largely on untroubled and robust correlation between the democratic nature of a state and peaceful inclination. Thus, the democratic peace theory assumes that liberal states do not fight wars against other liberal states. This theory was first enunciated in a keynote article towards non-liberal societies. From security point of view, the recommendations of democratic peace theory are clear. by Michael Doyle in Journal of Philosophy and Public Affairs (Doyle, 1998). Thus, Doyle argued that there was a difference in liberal practice towards liberal societies and liberal practice.

C. Empirical Review

Ebhotemhen and Olusola (2022) examined the impact of Government expenditure on security and export in Nigeria for the period 1986-2020. In a bid to actualize the main objective of the study, data were collected from secondary sources such as 2020 editions of CBN statistical Bulletin and National Bureau of statistics. The model of this study was built based on Keynesian National income model and data were analysed using the Vector Autoregressive Technique. The result of the study showed that one lagged period of export ($\ln(EPT(-1))$) has a direct and significant effect on export performance in Nigeria. The result further

established that two lagged period of government expenditure on emergency care ($\ln(\text{GSE}(-1))$) has no significant, but positive effect on export performance. The result proved that one lagged period of government expenditure on Amnesty ($\ln(\text{GSA}(-1))$) has no significant, but positive effect on export performance. The finding also show that one lagged period of government expenditure on Ammunitions ($\ln(\text{GSM}(-1))$) is positive and statistically significant on export performance

Onime (2018) examined the effect of insecurity on economic growth in Nigeria. Apart from its direct effect on the populace, it also affects the economy. Using elements of descriptive qualitative analysis and data from secondary sources, the paper analysed its effect on some economic parameters. The analysis showed that insecurity affects economic growth by drying-out investments, increases unemployment and dwindles government revenue, amongst others. Despite these effects, government capital expenditure on internal security did not grow astronomically to match the hydra-headed problem. This study therefore recommended an increase in capital expenditure on internal security and concludes with a discussion of some policies to be designed and targeted at addressing the economic effects of insecurity.

Amana (2022) assessed the impact of security expenditure on economic growth in Nigeria from 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. From the study's findings, the data were stationary at various levels and the impact estimated result shows that government security expenditure has strong impacts on economic growth in Nigeria given the R Square of 0.97. While long run result revealed that Government Recurrent Defence Spending in Nigeria.

Enimola and Akoko (2011) examined the relationship between the level of economic growth and defence spending in the case of Nigeria from the period of 1977 to 2006. The result of the Granger causality test shows that there is a unidirectional causality running from economic growth to defence spending. This study suggests that for Nigeria, a policy of increasing the defence budget to promote economic development growth might be inappropriate, but that same funds channelled towards another governmental program.

Similarly, Oriavwote and Eshenake (2013) examined the impact of defence spending on the level of economic growth in Nigeria. Using data covering the period between 1980 and 2010, the ECM result shows that the spending on defence has a negative impact on the level of economic growth. Spending on internal

security played important role in generating the desired level of economic growth in Nigeria. The low elasticity indicates that the significance was below expectations. The result of the variance decomposition shows that the shocks to spending on defence did not significantly explain the changes in the level of economic growth in Nigeria. Apansile and Okunlola (2014) examined the effect of military spending on output in Nigeria both in the short-run and in the long-run period. In addition, it verified whether military spending is an economically non-contributory activity using ARDL bounds testing approach to co-integration. Results showed that military spending has negative and significant effect on output in the short-run but positive and significant effect in the long-run. Labour and capital have positive and significant effects both in the long-run and short-run. In addition, labour has the highest coefficient (3.0709) in the long-run. The study concludes that government should reduce its spending on defence and concentrate more on human capital development, since military spending contributes nothing to output in the short-run.

In the work of Mohammed and Abu (2016) which examined the impact of defence expenditure and arms importation on economic growth in Nigeria: An Autoregressive Approach to analyse time series data for the period 1960-2014. Findings indicate the existence of a long run relationship between arms import, our measure of insecurity, and the variables considered. This observation was reinforced by the error correction terms in the parsimoniousness, which revealed that the system is slow in reverting back to equilibrium for all the variables excluding openness and trade balance that were relatively faster. The results suggest that the impact insecurity cannot be downplayed in short-term macroeconomic policy formulation and implementation especially in terms of the external sector. Therefore, it was concluded that the impact of insecurity is relatively higher on external sector and fiscal variables compared with domestic policy variables.

III. METHODOLOGY

A. Sources of Data

The nature of this research work requires collection of data from secondary sources. Hence, the major source of data for this study is the Statistical Bulletin published annually by the Central Bank of Nigeria (CBN) and the annual reports of the Institute of Economic for Peace.

B. Model Specification

The study adopts and modifies the work of Mohammed and Abu (2016) on the interactional impact of defence expenditure and arms importation on economic growth in Nigeria which is an Autoregressive Approach. The original functional model of Mohammed and Abu (2016) is stated as follows:

$$GDP = f(AI, DE, SE, PG, CF) \quad (1)$$

Where GDP is the Gross Domestic Product, AI is Arms Importation, DE is the Defence Expenditure, SE is the School Enrolment, PG is the Population Growth and CF is the Capital Formation in Nigeria.

The study adapted the above model and therefore specified the following model:

$$GTI = f(GREXP, GCAPEX \& INFL) \quad (2)$$

$$GTI = \beta_0 + \beta_1 GREXP + \beta_2 GCAPEX + \beta_3 INFL + U_t \quad (3)$$

Where: GTI = global terrorism index to capture and measure crime rate in Nigeria.

GREXP = government recurrent expenditure on security

GCAPEX = government capital expenditure on security

INFL = Inflation rate on expenditure

β_0 = regression constant

$\beta_1, \beta_2, \beta_3$ = parameters of the estimates and regression intercepts.

C. Measurement Variable Justification

Due to limited sub-national crime reporting by the Nigeria Police Force and NBS, this study adopts the Global Terrorism Index as a proxy for violent insecurity. The GTI is appropriate for Nigeria because terrorism, banditry, kidnapping for ransom payment constitute the primary source of conflict-related fatalities and displacement, particularly in the North-East and North-west and which has gradually spread to the South-West and South-South part of the country. It is important to note that GTI does not capture non-political crimes such as theft, fraud and corruption, however, it provides a consistent internationally comparable measure of lethal violence where official statistics are unavailable. Thus, GTI is used to capture high-intensity crime/insecurity rather than overall crime.

D. Estimation Techniques

The study used Ordinary Least Squares (OLS) as a tool of analysis in the investigation of the relationship between government expenditure on security and crime rate in Nigeria. The technique was chosen since it can be used to analyse both causal effect among variables with linear relationship. However, the natural log

of the data for dependent variable (GTI) and independent variables except inflation (GCAPEX and GREXP) were taken before the analysis so as to reduce skewness and outliers' impact from dominating OLS, make variance constant across levels by fixing heteroscedasticity and linearize the model.

IV. RESULTS AND DISCUSSION

A. OLS Regression Results

Table 1 shows the regression output of the relationship between government security expenditure and crime rate in Nigeria. The Durbin-Watson Statistics of 1.0168 shows the presence of positive serial correlation in the estimated result which might make the estimated result unbiased but inefficient and hence, impedes meaningful economic inference from being made. The observed presence of first order correlation has to be rectified before interpreting the results. Consequently, the auto-correlation-corrected estimates are depicted in Table 2.

Table 1: OLS Regression Results

Dependent Variable: LGTI				
Method: Least Squares				
Date: 03/11/26 Time: 21:28				
Sample: 2000 2025				
Included observations: 26				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.331834	0.284026	-4.689121	0.0002
LGCAPEX	-0.260593	0.108003	-2.412826	0.0261
LGREXP	0.628977	0.097878	6.426104	0.0000
INFL	-0.013069	0.008140	-1.605505	0.1249
R-squared	0.885558	Mean dependent var		1.707256
Adjusted R-squared	0.867489	S.D. dependent var		0.447503
S.E. of regression	0.162901	Akaike info criterion		-0.634581
Sum squared resid	0.504196	Schwarz criterion		-0.437104
Log likelihood	11.29768	Hannan-Quinn criter.		-0.584916
F-statistic	49.00778	Durbin-Watson stat		1.016876
Prob(F-statistic)	0.000000			

Source: Author's computation using E-view 10.0 (2024)

B. Newey-West HAC-corrected OLS Estimates

Though the model estimated result as shown in Table 1 initially showed the presence of positive serial correlation, the auto-correlation had been corrected in the results depicted in Table 2. Using Newey-West HAC Standard error and covariance estimator, the standard errors that are assumed too small have been

adjusted upward while the t-statistics that are assumed too big have been adjusted downward. However, the D.W statistics and the coefficients will remain the same, thus, the serial auto-correlation have been corrected and hence, the results are good for interpretation.

From the linear regression results obtained, the regression equation predicting the linear relationship between the Crime rate Nigerian economy (GTI), Total capital security expenditure (GCAPEX), total recurrent security expenditure (GREXP) and Inflation (INFL) can be stated as:

$$\ln GTI = -1.3318 - 0.2605 \ln GCAPEX + 0.6289 \ln GREXP - 0.0130 \ln INFL \quad (4)$$

Table 2: Newey-West HAC-corrected OLS Estimates

Dependent Variable: LGTI				
Method: Least Squares				
Date: 03/11/26 Time: 21:30				
Sample: 2000 2025				
Included observations: 26				
HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 3.0000)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.331834	0.343085	-3.881935	0.0010
LGCAPEX	-0.260593	0.158977	-1.639184	0.0276
LGREXP	0.628977	0.139128	4.520849	0.0002
INFL	-0.013069	0.005857	-2.231392	0.0379
R-squared	0.885558	Mean dependent var		1.707256
Adjusted R-squared	0.867489	S.D. dependent var		0.447503
S.E. of regression	0.162901	Akaike info criterion		-0.634581
Sum squared resid	0.504196	Schwarz criterion		-0.437104
Log likelihood	11.29768	Hannan-Quinn criter.		-0.584916
F-statistic	49.00778	Durbin-Watson stat		1.016876
Prob(F-statistic)	0.000000	Wald F-statistic		68.07505
Prob (Wald F-statistic)	0.000000			

Source: Author's computation using E-view 10.0 (2024)

From the estimated regression model above, it can be deduced that two of the independent variables i.e Total capital expenditure and inflation maintain negative relationship with the Crime rate in Nigeria (GTI) while recurrent expenditure (GREXP), on the other hand, maintains positive relationship with GTI. Furthermore, with GCAPEX and INFL maintaining negative relationships with GTI, the result implies that a 1% increase or decrease in GCAPEX caused about 26% decrease or increase in the average rate of crime

in Nigerian economy. Similarly, 1% increase in INFL brought about 1.3% decrease in the average or crime rate in Nigerian economy and vice versa.

This result thus connotes that if government increases capital expenditure in the security sector, crime rate would be scaled down in Nigeria; it also means that inflation is impeding the fight against insecurity and other vices in Nigeria since high inflation would reduce the volume of security apparatuses that government can buy in their bid to stem the tide of insecurity in Nigeria. Meanwhile, 1% increase in total recurrent expenditure (GREXP) culminated in about 62% increase in GTI, suggesting that recurrent expenditure which has no direct bearing to fighting crime and insecurity needs to be scaled down by the government if crime rate is to be curtailed. Thus, GREXP failed to align with a priori relationship with crime rate while the relationship displayed by capital expenditure (GCAPEX) and inflation (INFL) align with the a priori expectation. This is because capital expenditure, if productively incurred, is expected to contribute positively to the pruning down the rate of crime while recurrent expenditure, unless frivolously incurred is also expected to be negatively related to the crime rate, thereby reducing crime with increase in recurrent security expenditure. The intercept of the estimated model which is 1.3318 represents the value of the dependent variable (GTI) should the explanatory variables be held constant.

The multiple correlation co-efficient (R) of 0.94 indicates a strong linear positive relationship between the independent variables (GCAPEX, GREXP and INFL) and the dependent variable which is crime rate in Nigeria (GTI) since the value approaches 1. Also, the coefficient of determination (R^2) of 0.89 indicates that about 89% of the variation in the dependent variable (GTI) can be accounted for by the independent variables while the remaining 8% is explained by other factors not captured in the model but represented by stochastic term. This figure increases the goodness of fit of the fitted regression model to the set of time series data. The R^2 as adjusted for the degree of freedom ($n-k$) associated with the sums of squares entering into the specified model is 0.87, which is very close to the R -square value, suggesting that the model is unaffected by the addition or subtraction of variables from the model. Furthermore, the standard error of 0.1629 is the standard deviation of the sampling distribution of the estimator which measures the correctness of the estimates of the model and is relatively low as expected when compared with absolute value of the imputed data some of which are in billions of naira.

T-ratios measure how large the coefficients will vary if carried out on repeated sampling of the observations. GREXP has t-ratio of 4.52 compared to GCAPEX and INFL with 1.63 and -2.52 respectively. It therefore means that GREXP will have very little variation in repeated sampling of the observations than GCAPEX and INFL. F-stat of 49.00 with probability of 0.0000 as depicted on Table 4.2 reveals that jointly, the

included independent variables consistently explain variation in the dependent variable; that is, the percentage of variation in the crime rate, accounted for by the security expenditure is never due to chance or error.

C. Test of Hypotheses

The decision rule for testing hypothesis is that Null Hypothesis (H_0) should be rejected, and Alternate Hypothesis (H_1) accepted if P-value is less than or equal to 0.05 and vice versa.

H_{01} : Capital expenditure has no significant impact on the Nigerian crime rate.

H_{11} : Capital expenditure has significant impact on the Nigerian crime rate.

Since p-value of 0.0276 is less than critical value of 0.05, we do not have enough evidence to accept H_{01} ; which means that capital expenditure has significant negative impact on the Nigerian crime rate. The economic significance of the foregoing is that since GCAPEX is negatively related to the crime rate, it means increase in the total capital expenditure on security translate to significant reduction in crime rate as proxied by the global terrorism index

H_{02} : Recurrent expenditure has no significant impact on the Nigerian crime rate.

H_{12} : Recurrent expenditure has significant impact on the Nigerian crime rate.

Also, P-value of 0.0002 is less than the critical value of 0.05; thus, we do not have sufficient reason to accept the H_{02} ; this means that total recurrent expenditure has significant positive impact on the Nigerian crime rate. Although, the foregoing is in conformity with a priori expectation, it connotes that the amount of recurrent expenditure has actually increased the crime rate in Nigeria rather than enhancing the operational capabilities of governance in terms of human capital and other machineries which that are meant to curb rate of crimes in Nigeria

V. CONCLUSION

It is disturbing to note that government expenditure seems to have strong effect in neutralizing crime rate in Nigeria, and yet, insecurity in Nigeria has continue unabated for years despite the huge annual expenditure of the government in the security sector. This study found total security capital expenditure (GCAPEX) and inflation (INFL) maintain negative relationship with the crime rate in Nigeria (GTI) while recurrent expenditure (GREXP), on the other hand, maintains positive relationship. Furthermore, since GCAPEX and INFL maintain negative relationships with GTI, it implies that 1% increase in GCAPEX

triggered about 26% decrease in the average crime rate in Nigeria. Similarly, 1% increase in INFL will bring about 1.3% decrease in the average crime rate Nigerian economy and vice versa; meanwhile, 1% increase in total recurrent expenditure (GREXP) will culminate in about 62% increase in GTI. Based on these results and the F-statistics which is very significant, it was concluded that government security expenditure has strong implications for reducing crime rate in Nigeria.

VI. RECOMMENDATIONS

Based on the findings, the following recommendations are suggested:

- i. Government capital spending on security should be strategically increased without impeding the growth and development in other sectors of the economy since it has strong influence in stemming the tide of crime rate in Nigeria.
- ii. Effective monetary and fiscal policies should be put in place to curtail the increasing inflationary trend in the country.
- iii. Anti-graft or anti-corruption agencies like the Economic and Financial Crime Commission (EFCC), and the Independent Corrupt Practices Commission (ICPC) should be practically involved in unhindered investigation of the ills in the security sector to enable the security officers to be more accountable.
- iv. Those who divert and embezzle public funds meant for fighting crimes and insecurity in Nigeria should be treated as terrorists and made to face the consequences.

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