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Government expenditure on key sectors of the economy and stock market performance in Nigeria

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ABSTRACT

Purpose — *This study examines the effect of Government Expenditure (GE) on key sectors of the economy and Stock Market Performance (SMP) in Nigeria.*

Method — *Statistics Bulletin published by the Central Bank of Nigeria (CBN) was utilized as source for time series data between 1980 and 2021. SMP is proxied with MCAP and ASI while expenditure on agriculture, defense, education, and health formed components of government expenditure. The FM-OLS and ARDL methodology were adopted to determine the GE's short and long-term impact on SMP in Nigeria. ADF unit root testing, correlation analysis, Engle and Granger co-integration analysis, and preliminary descriptive statistics testing were all carried out.*

Result — *The outcome indicates that all through the long and short term, GE on education, defense and agriculture have significant influence of SMP in the long run via MCAP channel. GE on defense and agriculture significantly affects SMP in the short run via ASI channel. Hence, this study concludes that GE components are key determinants in explaining the effect of government spending on SMP in Nigeria. The magnitude of this effect is a function of stock market proxy used.*

Contribution — *This study provides empirical evidence on the impact of government spending on key sectors of the economy on stock market performance in Nigeria using two proxies (market capitalization and all share index) in short run and longrun.*

Keywords: *market capitalization, stock market performance, government expenditure, FM-OLS, ARDL*

INTRODUCTION

The stock market has remained the barometer to measure the performance and growth of major global economies. Any economy's evolution and advancement are influenced by the financial market, of which the capital market is a component. The capital market, which is a platform to provide medium- and long-term financial instruments, plays a vital role in stimulating necessary growth in any economy. In prior studies (Osaze, 2007; Aigheyisi & Edore, 2014; Ogochukwu & Oruta, 2021) has established the fact that stock market helps to propagate growth and development in countries. These growths can be measured through market capitalization; all share indexes, transaction value as a ratio of gross domestic product, transaction volume and number of new issues in the stock market.

Over time, successive governments embark on budgetary allocations to all sectors of the economy to facilitate growth and development. These expenditures can take the form of either capital expenditure or recurrent expenditure. There are key sectors in the economy that successive governments focus on due to the peculiarities of such sectors. Sectors like the defense, education, health and agriculture are priority areas to government. Nigeria's total health Budget in 2021 was 512 billion naira and that of the year 2022 was 820 billion naira, this was a quantum increase of 60.1%, according to budget office of the federation (2022). Also, the expenditure on education in Nigeria in 2021 and 2022 respectively were 781.1 billion naira and 1.29 trillion naira amounting to 65.1 percent (%) increment of the previous year.

Similarly, government expenditure on defense and security between 2021 and 2022 as reported by the budget office in 2022 was 961 billion and 2.41 trillion naira, which translated to about 150.8 percent increment. The exponential increment in the defense and security sector could be traced to Nigeria's insecurity problems (Boko Haram activities, Kidnapping and Militancy). With mixed findings, diverse scholars have researched the relationship between government expenditure and stock market performance. The outcome of their studies (Bekhet & Othman, 2012; Aighyesi & Edore, 2014) revealed a negative and insignificant impact of government expenditure on stock market performance. However, the empirical studies of Audu (2020) and Iba, Eba & Emori (2018) on government expenditure and capital market performance revealed a positive and significant impact. However, this study became imminent since the scope of this study has been extended and more sophisticated methodologies (using autoregressive distributed lag and fully modified ordinary least squares) was adopted for the study.

Majority of prior studies are on the impact of government expenditure on economic growth (Adole, Abraham & Sunday, 2021; Ugochukwu & Oruta, 2021; Bappahyaya, Abiah & Bello, 2020; Ebipre & Eniekezimene, 2020; Okere, Uzowuru & Amako, 2019; Ebong, Ogwumike, Udongwo & Ayodele, 2016). However, few studies have researched public expenditure and stock market development in Nigeria, but their studies did not disaggregate government expenditure into key sectors of the economy. This study became imperative owing to the fact that two models and two methods of data analyses (FMOLS and ARDL) were employed to investigate the impact of government expenditure on key sectors of the economy and stock market performance in Nigeria. Another motivation for this study is the continuous upward surge in government expenditure in central sectors of the economy, which has orchestrated incessant borrowing by the central government to fund budgets every year, hence this study became imperative to ascertain if the colossal government expenditure impacts on the stock market development.

Therefore, the central objective of this study is to ascertain the effect of government expenditure on key sectors of the economy on stock market performance in Nigeria.

METHOD

In this study, the longitudinal research methodology was used. This study design is suitable for this nature of study because the researchers cannot manipulate the data because they have occurred and historical in nature. The data for this study were sourced from Nigerian Exchange Group (NGX) Factbook and Central Bank of Nigeria statistical bulletins of various editions. The scope of this study is from 1980 to 2021. The reason for this time frame is to observe the trend of successive government expenditure on key sectors of the economy cutting across both military and democratic dispensations. The population of the study is entire Nigerian economy. The purposive sampling technique was adopted to restrict our samples to government expenditure on key sectors of the economy and stock market performance indicators.

The variables adopted for the study were measured as; market capitalization and all share index serving as dependent variables. They were measured as Market share price per share multiplied by the number of outstanding shares (Chen, 2018) and All Share Index measures the collective performance of all the ordinary shares of companies on the NGX Securities exchange (Grieve, 2001). The government expenditure on health, education, agriculture, and defense were measured as aggregate budgetary allocation to these sectors comprising capital

and recurrent expenditure (Ebong, Ogwumike, Udongwo, & Ayodele, 2016; Ofikwu, 2019). See table below:

Table 1. Operational variables

Variable	Types of variable	Measurement	Source
Market capitalization	Dependent	Market share price multiplied by the number of outstanding shares (Chen, 2018)	Nigerian Exchange Group (NGX)
All Shares Index	Dependent	Collective performance of all the ordinary shares of companies on securities exchange (Griere, 2001)	Nigerian Exchange Group (NGX)
GEXE	Independent	Aggregate of government budgetary expenditure both capital and recurrent on education (Ebong, Ogwumake, Udongwo and Ayodele, 2016; Ofikwu, 2019)	CBN Statistical Bulletin
GEXH	Independent	Aggregate of government budgetary expenditure both capital and recurrent on Health. Ebong, Ogwumake, Udongwo and (Ayodele, 2016; Ofikwu, 2019)	CBN Statistical Bulletin
GEXD	Independent	Aggregate of government budgetary expenditure both capital and recurrent on defense and security (Ebong, Ogwumake, Udongwo and Ayodele, 2016; Ofikwu, 2019)	CBN Statistical Bulletin
GEXA	Independent	Aggregate of government budgetary expenditure both capital and recurrent on Agriculture (Ebong, Ogwumake, Udongwo and Ayodele, 2016; Ofikwu, 2019)	CBN Statistical Bulletin

Source: authors' compilation (2023)

The study adopted the FMOLS (fully modified ordinary least squares) and (autoregressive distributed lag) ARDL econometric techniques to analyze the empirical models and examine government expenditure's effect on Nigeria's stock market performance. The merit of these econometric techniques is that they help checkmate the endogeneity problem (Philips, 1995). Time series preliminary descriptive statistics analyses were carried out to describe the data properties using Augmented Dickey-Fuller, examining the data for stationarity or non-stationarity issues (ADF). After that, the researcher used the Engle and Granger co-integration test to determine if the non-stationarity variables are cointegrated and to validate an equilibrium relationship over the long run between variables. If co-integrating relationship exist, then the FMOLS is estimated to ascertain the long run elasticity coefficients of government expenditure effect on stock market performance. Then, the ARDL estimation

techniques was carried out to ascertain the short run elasticity coefficients of government expenditure effect on stock market performance.

Hypotheses development

This study ascertains the central impact of government expenditure on stock market performance and informed the basis for the hypotheses raised and tested in this article.

Education

Development economists opine that education strongly correlates with any nation's economic performance by extension the capital market. Sound and vibrant education could enhance and improve the efficiencies and productivities of individuals (Todaro & Smith, 2003). This can also be linked to the most celebrated Wagner's theory (1883) that is of the view that increase in government expenditure will lead to the development of the economy; therefore, it can also enhance capital market development.

Ho_1: There is no significant relationship between government expenditure on education and stock market performance in Nigeria.

Health

Health serves as capital for every nation. Government expenditure on health plays a vital role by increasing productivity and economic performance in the long run. It is only healthy and productive entity that can promote growth and development of the stock exchange. Prior studies (Wang, 2015; Kurt, 2015; Zang, Gang & Dong, 2020; Raghupathi & Raghupathi, 2020; Olayiwola, Bakare-Aremu & Abiodun, 2021) reported a positive effect of government health expenditure on economic performance by extension stock exchange performance. This position is also linked to wagner's theory (1883) that posits that continuous government spending spurs massive economic growth with the capital market inclusive.

Ho_2: There is no significant effect of government expenditure on Nigeria's health and stock market performance.

Defense

Security is very paramount to development to all sectors of the economy. Growth and development thrive only when there is peace and tranquility in any country (Agheyisi & Edore, 2014). The major driving force for foreign portfolio investments in global capital markets is safety and secured environments (Osamwonyi & Ikponmwosa, 2018). However, there are also findings in literature that allude to the fact that government expenditure in military and defense propels economic growth (Raifu & Aminu, 2023; Amana, Aigbedion & Zubair, 2020). Findings from previous studies are mixed, some reported negative impact of government expenditure on economic growth (Oriavwote & Eshenake, 2013; Apansile & Okunlola, 2014) and positive effect (Khalid & Mustapha, 2014; Taheer & Asmau, 2017). The theory of Peacock and Wiseman (1979) on displacement effect will make government to invest more monies on defense and security wherein other key sectors of the economy are neglected.

Ho_3: There is no significant effect of government expenditure on defense and stock market performance in Nigeria.

Agriculture

Agriculture remains the highest sector in employment in Nigeria. The spending on this sector is carried out by individuals, private and local sectors, state, and federal governments. Government expenditure in this sector covers both capital and recurrent budgetary allocation. These expenditures are directed to fertilizers, research and development, improved varieties of seedlings, acquisitions of tractors and machines (Matthew & Mordecai, 2016). In line with the theoretical position of Wagner (1890), this expenditure will have a multiplier effect on the overall growth of the economy, stock market inclusive.

Ho_4: Government expenditure has no significant effect on agriculture and stock market performance in Nigeria.

Model specification

This study adopted two models and they are specified below. The first model was used to addressed using the fully modified ordinary least squares (FMOLS) methodology for data analysis and the second model captured the autoregressive distributed lag (ARDL) method of data technique.

Model 1

The functional form of the model is stated as;

MCAP = f (GEXE, GEXH, GEXD, GEXA) …….. (1)

The model is then expressed econometrically as;

$MCAP = \beta_0 + \beta_1 GEXH + \beta_2 GEXE + \beta_3 GEXA + \beta_4 GEXD + U_i$ …….. (2)

Model 2

$$\Delta ASI = \alpha_0 + \sum_{t=1}^{p} \alpha_{1i} \Delta ASI_{t-1} + \sum_{i=0}^{q} \alpha_{2i} \Delta GEXE_{t-1} + \sum_{i-0}^{q} \alpha_{3i} \Delta GEXH_{t-1} + \sum_{i=0}^{q} \alpha_{4i} \Delta GEXD_{t-1} + \sum_{i=0}^{q} \alpha_{5i} \Delta GEXA_{t-1} + \beta_{ASI} ASI_{t-1} + \beta_{GEXE} GEXE_{t-1} + \beta_{GEXH} GEXH_{t-1} + \beta_{GEXD} GEXD_{t-1} + \beta_{GEXA} GEXA_{t-1} + u_t \quad \ldots\ldots\ldots (3)$$

Where;
ASI = All share index
MCAP = Market capitalization
GEXH = Government expenditure on health
GEXE = Government expenditure on education
GEXA = Government expenditure on agricultural sector
GEXD = Government expenditure on defense
β_0, β_1, β_2, β_3 and β_4 are Parameters
U_i = Error term

RESULT AND DISCUSSION

Table 2. Statistics summary

	Mean	Median	Max	Min	Std. Dev.	Skewness	Kurtosis	J-B Sat	Prob.
MCAP	4888.793	1036.8	22296.84	5.51	6270.294	1.208424	3.608773	9.317637	0.01
ASI	19248.9	20730.63	57990.2	127.3	16700.43	0.451805	2.191486	2.26657	0.32
GEXE	1451359	73497.11	28350225	653.57	6088569	4.246219	19.03758	576.3198	0.00
GEXH	96818.38	7255.3	850250.4	25.72	208249.8	2.537482	8.239857	88.68562	0.00
GEXD	4770667	8806	1.78E+08	18.5	27507491	6.183366	39.48228	2596.812	0.00
GEXA	79619.75	8510.9	712855.6	252.5	164718.6	2.602603	8.755224	102.8703	0.00

Source: authors' computation using E-views 9.0 (2022)

The proportion of mean to median for the entire variables in table 2 is not approximately one. This represents a high degree of asymmetrical property distributions. The difference between minimum and maximum value for all

variables during the study period significantly different from one and another. The entire variables skewed to the right-hand side of the mean as indicated by their positive Skewness coefficients. Only ASI has flat distribution property due to its Kurtosis value that is < 3.0 while others have a peak distribution property since their corresponding Kurtosis values are > 3.0. Similarly, only ASI is normally distributed because its probability value is insignificant.

Table 3. Pearson correlation matrix

Correlation t-Statistic Probability	MCAP	ASI	GEXE	GEXH	GEXD	GEXA
MCAP	1.000000 ----- -----					
ASI	0.711444 5.545036 0.0000	1.000000 ----- -----				
GEXE	0.912810* 12.24254 0.0000	0.628643* 8.107975 0.0000	1.000000 ----- -----			
GEXH	0.759250* 6.389960 0.0000	0.466741* 2.890617 0.0071	0.657796 4.783483 0.0000	1.000000 ----- -----		
GEXD	0.420264** 2.536780 0.0166	0.292901 1.677869 0.1038	0.381043 2.257360 0.0314	0.392797 2.339473 0.0262	1.000000 ----- -----	
GEXA	0.739459* 8.460992 0.0000	0.517057* 3.308644 0.0024	0.680684 5.089234 0.0000	0.748772 8.792135 0.0000	0.376951 2.229077 0.0334	1.000000 ----- -----

*, and ** = 1% and 5% level of significance

Source: authors' computation using E-views 9.0 (2022)

On the relationship between the dependent variables (MCAP and ASI) and other independent variables in both models in table 3: First, GEXE, GEXH, and GEXA all exhibit correlation coefficient values of> 70.0, indicating a very strong positive and significant relationship with MCAP. GEXD and MCAP have a reasonably strong, positive, and significant relationship. These imply that increase in different components of government expenditure increases stock market performance proxied by MCAP during the studied period vice-visa. Second, GEXE, GEXH and GEXA have a strong positive correlation with stock market performance proxy of ASI as shown by their positive and significant correlation

coefficient value that is significant at 5% confidence level. This suggests that increase in government expenditures (except for GEXD) increases stock market performance. None of the explanatory variables have a correlation coefficient of up to 0.80. This may suggest the early signal of multi-collinearity absence among the variables.

Table 4. Stationarity Test

Augmented Dickey-Fuller (ADF) Test						
	@ Levels			**@ First difference**		
Variables	**ADF Stat**	**Order**	**Comment**	**ADF Stat**	**Order**	**Comment**
MCAP	-2.623175	I(0)	NS	-4.345534*	I(1)	S
ASI	-3.023115	I(0)	""	-5.730268*	""	""
GEXE	-1.298553	I(0)	""	-15.73000*	""	""
GEXH	-2.858029	I(0)	""	-9.561819*	""	""
GEXD	5.187993	I(0)	S	-13.32140*	""	""
GEXA	2.748489	I(0)	NS	-4.638507	""	""
Critical Values						
1%	-4.667883	I(0)		-4.394309		
5%	-3.733200	""		-3.612199		
10%	-3.310349	""		-3.243079		
S = Stationary, NS = Not Stationary						

* & ** = 1% and 5% level of significance

Source: authors' computation using E-views 9.0 (2022)

In table 4, the variables under studied were not stationary at levels I(0). None stationary times series variables could undermine the model's predictive power and result to spurious result. This justifies taking the first difference across all variables. The ADF statistics, which are bigger than the critical value, show that at the initial difference, all variables remained at a 5% degree of confidence, the model is stationary and integrated within the same order, I(1).

Table 5. Co-integration test

Engle and Granger Two Stage Test			
Model 3.3			
Variable	ADF Statistics	Prob.	Remark
Residuals (ECM)	-4.718918*	0.0060	Co-integrated
Model 3.4			
Residuals (ECM2)	-2.509809	0.3214	Not Co-integrated
Critical Value = -3.568379 @ 5% level of Significance			

* = 1% level of significance

Source: authors' computation using E-views 9.0 (2022)

Table 5 contains the co-integration result of Eq (3.3) and Eq (3.4) respectively used to determine if the parameters have a long-term relationship. For Eq (3.3) the absolute ADF calculated statistics of 4.7189 from the residuals is greater than

the critical value of 3.5684 in absolute term. This shows that the variables converge in the long run after deviation due to short run shock. Thus, the variables have a long-term relationship, and FM-OLS is appropriate for model estimation. On the other hand, the ADF statistics of 2.5098 is < 3.5684 in absolute term for Eq (3.4). This indicates that the variables of interest do not have a co-integrating (long-run) relationship. This means that the variables that deviate due to short run shock does not adjust (converge) to long run equilibrium. Thus, the Autoregressive Distributed Lag (ARDL) technique is more suitable in estimating this model. Hence, the next step is to estimate the long and short run elasticities using FMOLS and ARDL method.

Table 6. Fully Modified Ordinary Least Square (FM-OLS) result

Variables	Coefficient	t-statistics	Prob.
GEXE	0.029694*	6.490302	0.0000
GEXH	0.000625	0.223934	0.8246
GEXD	-0.017676*	-3.753863	0.0009
GEXA	0.073894*	4.471197	0.0001
C	-1301.270	-2.843753	0.0086
R-squared	0.866610		
Adjusted R^2	0.846089		

Dependent variable = MCAP
* = 1% level of significance

Source: authors' computation using E-views 9.0 (2022)

Table 6's FM-OLS results demonstrate that, once degree of freedom is considered, the model accurately predicted 85% of all systematic fluctuations in MCAP. This suggests that the regression line and the model have a good fit. Only 15% of MCAP changes were not explained by the model instead were accounted for by the error term. According to its associated probability value of> 0.05, only GEXH failed the significant test at 5% confidence level. Since other variables' probability values are below 0.05, they pass the significant test at a 5% confidence level. This suggests that throughout the research period, these variables had a greater impact on MCAP. The effect of various government expenditures on MCAP varies in different magnitude as indicated by their corresponding coefficient values.

Table 7. Autoregressive Distributed Lag (ARDL) Result

Variables	Coefficients	t-statistics	Prob.
ASI(-1)	0.463933*	3.847732	0.0010
GEXE	0.035140	0.427865	0.6733
GEXE(-1)	-0.064423	-0.832194	0.4151

GEXH	0.007772	0.842486	0.4095
GEXH(-1)	-0.008951	-0.979519	0.3390
GEXD	-0.155679*	-5.073885	0.0001
GEXD(-1)	0.005549*	4.179815	0.0005
GEXA	0.212984*	2.998097	0.0071
GEXA(-1)	0.393105*	4.516038	0.0002
C	850.3120	0.556665	0.5839
R-squared	0.928729		
Adjusted R^2	0.896658		
F-statistic	28.95788		
Prob(F-statistic)	0.000000		
Durbin-W. Stat	2.612970		

Dependent variable = ASI
* = 1% level of significance

Source: authors' computation using E-views 9.0 (2022)

The ARDL result in table 7 also revealed that 90% of total systematic changes in stock market performance proxied by ASI after adjusted for degree of freedom as shown by the coefficient of determination adjusted R2 value of 0.90 approximately. This signifies that the regression line and the model have a good fit. Because there are several extra variables impacting ASI that were not mentioned in the model but were considered by the random error term in the short run, only 10% of the systematic variation in ASI was left unaccounted for. The F-statistics value of roughly 28.96 indicates a significant relationship between ASI and all explanatory parameters, which is significant in the short run at a 5% confidence level.

Only the lag values of ASI (-1), GEXD (-1) and GEXA (-1) pass their significant test at 5% level of confidence, as indicated by their associated probability values, which are < 0.05. Only GEXD and GEXA at current period pass their individual significant test with short-term probability values < 0.05. The short run coefficient elasticity of the explanatory variables in table 4.6 shows different effect and magnitude on ASI. The Durbin Watson (D.W) statistics value of 2.612970 which is estimated to 3.0. May show the presence of serial correlation in the result; and this can undermine the predictive power of the model. However, the D.W statistics is insufficient to substantiate serial correlation due to the dependent variable's lag value in the model's right side. Thus, a higher second order Serial Correlation (SC) test of Breusch-Godfrey SC LM test becomes imperative.

Table 8. Breusch-Godfrey serial correlation LM test

F-statistic	1.200284	Prob. F(2,18)	0.3241
Obs*R-squared	3.530149	Prob. Chi-Square(2)	0.1712

Source: authors' computation using E-views 9.0 (2022)

The F-statistics value of 3.53 approximately in table 8 is insignificant at 5% confidence level. This implies serial correlation is not present in the model result. Hence, this result is fit and dependable for policy recommendations with being miss-leading.

Hypothesis testing

Hypothesis one

Ho_1: There is no significant relationship between government expenditure on health and stock market performance in Nigeria.

The probability value for GEXH is 0.8246 and 0.4095 respectively which is > 0.05. Thus, given that the null hypothesis is adopted, then follows that government health expenditure in the short and long terms has insignificant impact on Nigeria's stock market performance.

Hypothesis two

Ho_2: There is no significant effect of government expenditure on Nigeria's education and stock market performance.

GEXE has the probability value of 0.000 < 0.05 and 0.6733 > 0.05. Thus, the null hypothesis is rejected. This implies that expenditure on education by the government has significant influence on the performance of Nigeria stock market only in the long run.

Hypothesis three

Ho_3: Government expenditure has no significant effect on agriculture and stock market performance in Nigeria.

The probability value for GEXA is 0.001 and 0.007 both < 0.05. Hence, the alternate hypothesis is accepted. This indicates that agricultural expenditure by the government significantly impact the performance of the Nigerian stock market throughout the long and short terms.

Hypothesis four

Ho_4: There is no significant effect of government expenditure on defense and stock market performance in Nigeria.

Finally, GEXD has 0.009 and 0.0001probability value both < 0.05. Like this, the alternate hypothesis cannot be rejected. Thus, government defense expenditure significantly affects both the short and long-term performance of the stock market.

Discussion

From the results, different components of government expenditure significantly influenced Stock Market Performance (SMP) in vary degree and magnitude. First, the average value of stock market performance is 850.3120 and -1301.270 in the short and long run respectively holding other factors constant. The explanatory variables have different degree of impact on SMP with respect to the stock market measure used. For MCAP proxy, only GEXH has no significant impact on SMP in the short and long run ad irrespective of the measure used in this study. GEXE has significant positive influence on SMP. This shows that a unit increase in GEXE will result to 0.03 (3%) significant increase in SMP in the long run vice-visa. It further buttresses the fact that government policy of expenditure on education to boost human capacity development is in the right direction. This finding is in line with that of Aigheyisi and Edore (2014), Adole, Abraham, and Sunday (2021), Abakah and Poku (2016) in the literature.

Also, GEXD has significant inverse influence on SMP in Nigeria in the long run. Thus, a units increase in GEXD will result in a significant decrease of -0.0177 (-2%) in SMP. Although, this variable behaves contrary to *A priori* expectation and could be attributed to the compromise, corruption and sell out in the Nigeria military in combating insurgency across the six (6) geopolitical zones in Nigeria. This outcome corroborates that of Okoro (2013), Oriavwote and Eshenake (2013), and Ofikwu (2019), that government expenditure has long run and inverse relationship with growth and MCAP. Similarly, GEXA buttress a long-term, significant positive influence on SMP. This signifies that a rise in GEXA units will yield a 0.074 (7%) significant increase in SMP in Nigeria, which is in line with Audu (2020) findings in his study.

For ASI model, the one period lag considered for ASI (-1) has a significant positive effect on current year ASI. Similarly, the one period lag considered by GEXD (-1) and GEXA (-1) has significant positive effect on current year GEXD and GEXA respectively. Similarly, GEXD significantly negatively impacts SMP proxied by ASI in the short run. A unit increase in GEXD will result to -0.16 (16%) decrease in SMP. The reason for this variable coefficient sign could be attributed to large chunk of budgetary capital allocation been used to procure arms and ammunitions from other countries, thereby creating market and employment for

the citizens of their trading partners, this can be linked to Peacock and Wiseman (1979) position on displacement effect. This outcome corroborates the findings of Apansile and Okunlola (2014) and Ebipre and Eniekezimene (2020) in their studies. In the short term, GEXA significantly and positively affects SMP in Nigeria. A unit rise in GEXA will cause SMP to increase significantly by 0.21 (21%) vice-visa. This also implied that policy direction concerning government expenditure on agriculture and defense is appropriate to achieve the set goals and objectives. This finding is in accordance with that of Ugochukwu and Oruta (2021). Significant short run relationship was not found between GEXE, GEXH and SMP when proxied by ASI. This is contrary to the finding of Ugochukwu and Oruta (2021). From the preceding analysis, it is deduced that the magnitude and direction of effect government expenditure on health, defense, agriculture, and education is a function of the time and the barometer used to gauge SMP in Nigeria.

CONCLUSION

In Nigeria, the government's involvement in economic activity has significantly increased, and the rise in public spending is a dilemma for public policy makers. Between around $3.99 trillion in 2010 and approximately $5.35 trillion in 2020, the government's total expenditures rose exponentially—both capital and recurrent. In order to measure national income, the national expenditure approach includes a significant portion of government spending. This shows that government spending greatly influences the extent of the economy, the size of the capital market, and the economic growth rate. On this basis, this study investigates the impact of government expenditure (GE) on key sectors of the economy and Nigeria's stock market performance (SMP). From 1980 to 2021, statistical Bulletin of the Central Bank of Nigeria (CBN) and Nigeria Exchange Group fact book were used as the basis for the time-series data.

SMP is proxied with MCAP and ASI while expenditure on agriculture, defense, education, and health formed components of government expenditure; to form the MCAP and ASI models. The FM-OLS and ARDL methodology were adopted to determine the impact of GE on SMP in Nigeria over the short and long terms. The Engle and Granger co-integration test, the ADF unit root test, the correlation analysis, and the descriptive statistics were all performed as preliminary tests. Findings show that both in the short and long run, GE on education, defense and agriculture significantly influence SMP in the long run via MCAP channel. GE on defense and agriculture has significant effect on SMP in the short run via ASI channel. Hence, this study concludes that GE components are key determinants

in explaining the effect of government spending on SMP in Nigeria. The magnitude of this effect is a function of stock market proxy used.

From the findings of the study, the following recommendations are made:

1. Regulators should rely on government expenditure for a short period of time to boost the value of ASI in Nigeria.
2. The Security and Exchange Commission (SEC) should use an effective and efficient inclusion policy to guide government expenditure as a long-term means to boost market capitalization.
3. Diversion of government health expenditure into private or personal use should be discouraged to enable such expenditure to significantly spur growth and market development.
4. Derivative with high rate of return that will encourage more government employee to invest in capital market instrument should be carved out.
5. Corruption and nepotism in government expenditure on health, agriculture, education, and defense should be mitigated to the lowest ebb to realize the actual effect of such expenditure in the market and the economy at large.

This study has limitations and suggestion for further studies. First, to validate and generalize the findings of this country specific study, future research needs to compare evidence from international market data with domestic market data in a cross-country study. Thus, we leave this for new research topic. Second, the model underlying this study should be extended and re-evaluated to accommodate other government expenditure components such as infrastructure and transport expenditure using other robust techniques like the Generalized Method of Moments (GMM) to reveal additional information in the subject matter.

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