

Nigerian Exchange Group Index and the Nigerian Economy: Any Linkages?

EGUGBO, Rita Uzoma (ACA)

Department of Banking and Finance, Faculty of Management Sciences, Dennis Osadebay University, Asaba, Delta State.

ORCID Number: 0000-0003-4442-4983

Corresponding Email: rita.egugbo@gmail.com

Abstract: *This paper studied whether the Nigerian Exchange Group-NEG is linked to the growth/performance of the Nigeria. The paper covered from 1987 to 2021 (i.e. 35 years). Specifically, the paper studied the effect of market capitalization-MCAP, volume of shares traded-VST, value of transaction-VTR, All-share-index-ASI, on real gross domestic product-RGDP. Two estimation techniques considered are Ordinary Least Square-OLS and Cointegration Test. The statistical package used to run the regression is Econometric Views version 9.0. The study affirmed that, NEG index on the overall has high predictive power on economic growth. More so, stock market index improved the RGDP of the Nigerian economy. Individually, MCAP and VTR are highly instrumental to economic growth of Nigeria as they had both positive (Coef. of MCAP= 0.637367; Coef. of VTR= 0.847868) and significant (P-Value of MCAP = 0.0206 & P-Value of VTR =0.0459). However, both VST and ASI improved the economic growth (RGDP) of Nigeria minimally. Thus, the paper concludes that, the Nigerian exchange group is instrumental to the Nigerian economy over time. Consequently, the regulators of the exchange group should ensure that trading and settlements activities in the NEG are fully automated.*

Keywords: Nigerian Exchange Group Index, Growth, Nigerian Economy, Any Linkages?

1. INTRODUCTION

Globally, the exchange group market is identified as a major driving force of growth of any economy. More evidently, as the world become more acquitted with the new trends in the world global market landscape; the need to ensure that the NEG is efficient is germane. As argued by Onuora (2019), a vibrant/efficient NEG serves pivotal role in the financial system as it ensures that businesses that are cash trapped can raise funds for investment purposes. Deducing from theoretical expectations, NEG improves the growth of every economy as it increases saving mobilization, liquidity creation, risk diversification, provision of long-term funding, reduces over-dependence on debt financing amongst others (Agu, 2018). Thus, an active/efficient NEG improves economic activities.

Abina, and Lemea (2019) noted that, NEG helps promotes efficient resource allocation, and capital formation. Worthy to note is that, there are various NEG index. The most common NEG index are: MCAP, VST, VTR, and ASI. As it relates to ASI, ASI measures the broad base NEG index. This parameter gives an overall picture of the common stock holders' behavioural pattern. Meanwhile, market capitalization-MCAP is a measure of the NEG growth rate. Additionally, this parameter shows the soundness and magnitude of any exchange group operations. Again, value of transactions-VTR shows the market transaction magnitude in an exchange.

Furthermore, the need to revamp the NEG began immediately after the global financial crises from 2008 to 2009. This is borne of the strong desire to ensure that the NEG meet international best practices and the desire to ensure that, most of the firms that are faced with financial distress and subsequent liquidation are addressed accordingly (Odo, Anoke, Onyeisi & Chukwu, 2017). However, Ugherughe, Okwuise, and Ukwandi (2020) Agu (2018) & Yusuf, and Aminu (2016) were of the view that, the change in globalization has led to socio-economic and political malaise which is antithetical to economic growth. Apparently, lots of businesses in Nigeria lack long-term capital to expand beyond their present financial status. The NEG which helps to serve as financiers are faced with buy and hold attitudes. This in turn has posed the greatest threat to development in most African countries including Nigeria. Again, even when the NEG have huge potential to savage the Nigerian economy from financial malady, most individual investors, corporate investors and government are yet to take full advantage of opportunities which the markets brings. This formed one of the major motivating factor as the current study sought to examine the contributions of the NEG index to the RGDP of the Nigeria.

Lastly, one fundamental weakness of most related studies is that, the studies are mostly considered on a short term basis. Consequently, this study addresses this perceived gap by adopting both short and long run effects. In this regards, the present study examined the effects of the Nigerian exchange Group-NEG Index on the RGDP of Nigeria. Specifically, the paper disaggregated NEG index into market capitalization-MCAP, volume of stock traded-VST, value of transaction-VTR, All-share-index-ASI, on RGDP

2. LITERATURE REVIEW

2.1. Conceptual Clarification and Linkages

The term "exchange group Index-EGI" simply means the parameters measure the viability of the stock market. Usually, these parameters measure how price movements affect the whole economy. This is owing to the fact that, an efficient stock market is

critical to the growth of the economy (Abina, & Lemea, 2019). For example, wherein an investor is bullish/takes a short position, the investor may decide to buy stock with the intention to sell such stock at a considerable higher price. Usually, bullish positions signal higher economic performance. However, if an investor is bearish, it signals downward/economic depression. Hence, if an economy must grow, the stock market must be efficient.

Basically, EGI is factored by a series/range of factors such as: political, economic, foreign, and company-centered issues. Meanwhile, the five (5) factors which influence the stock market's liquidity are: tightness of the market, its breadth, depth, and resilience (Kirikkaleli, 2020). Abina, and Lemea (2019) classified NEG liquidity into: (i) transaction-cost-based proxies (ii) volume based proxies measured by the depth and breadths ;(iii) equilibrium based proxies as a measure of the market resilience; and (iv) market impact measures as a measure of the market resilience and the price discovery speeds. Outstanding examples of these NEG Index are MCAP, VST, VTR, and ASI.

It is therefore believed that, the above proxies will improve the economic growth/RGDP of Nigeria. Accordingly, economic viability account for rise in a country's final products produced annually. Put differently, it may be viewed as the process of increasing the sizes of a country's RGDP (Gylych & Mustapha, 2017).

Typologically, it can be positive, negative, or zero. A positive RGDP is recorded when the annual mean macro-indicators are more than the mean population growth. Meanwhile, a negative RGDP recorded when the annual mean macro-indicators are lower than the mean population growth. However, if both the macro-indicators and the population growth equals, it is termed zero RGDP. This parameter measures the value of economic output adjusted for changes caused by either deflation or inflation. Thus, RGDP is also known as constant GDP.

2.2. Theoretical Underpinning

This study adopted the financial market development theory. The theory holds that, a developed financial market (NEG) improves economic growth as it ensure that domestic and foreign investors access funds for investment purposes. This theory further contends that, the benefits accruable from such investments will compensate for the risk inherent in such market. Okwuse (2019) added that, the NEG supports the growth plan of a country as it help reduce liquidity costs, increases a country's savings, investments, and productivity level.

2.3. Empirical Review

A good number of empirical researches have been conducted in these areas. Recently, Akinmade, Adedoyin, and Bekun (2020) in a study on whether stock market disruptions affect the Nigerian economy or not reported that distortion in NEG proxies such as measures MCAP, VTR, and ASI reduces economic growth.

Abina, and Lemea (2019) reported that, the capital market is instrumental to economic performance of Nigeria from 1985 to 2017 Araoye, Ajayi, and Aruwaji (2018) reported that, the capital market is instrumental to Nigerian economic performance from 1985 to 2014 using the error correlation model.

Godwin, Onoh, Ogbonna, Eugene, and Iheukwumere (2018) found that, the NEG stimulates the RGDP of Nigeria from 1981-2014. However, Agu (2018) reported that, MCAP retards the Nigerian economy from 1995 to 2016. Again, Enekwe, Eziedo, and Agu (2016) reported that, market capitalization (MCAP) exert positive and significant effect on the Nigerian economy measured by RGDP. However, both the number of listed securities (NSLS), VTR retards the performance of the Nigerian economy minimally. Yusuf and Aminu, (2016) reported that, the NEG reduced the RGDP of Nigeria drastically from 2005 to 2014. Similarly, Pan and Mishra, (2016) reported that, ASI reduced the performance of the Chinese economy to a very great extent. However, Obiakor (2016) reported that, stock market index as measured improves the Nigerian RGDP from 1985 to 2015.

3. METHODOLOGY

The expost-facto design was considered. The whole Nigerian Exchange group-NEG was considered. Therefore, the sample size equals the population. This means that we are taking the census to arrive at the sample. The study spanned from 1986to 2021. Data was collected from the NEG Fact book, 2021. Data collected covered MCAP, VST, VTR, ASI, and RGDP. Accordingly, the estimation technique adopted are Cointegration and Ordinary Least Square-OLS estimation with a view to test if NEG Index has both short and long run effect on the Nigerian economy from 1986 to 2021 or not. Various diagnostic tests considered are: Heteroskedasticity test-HET, Ramsey reset test-RRT, and Normality test-NOT.

The model used for this paper is specified in equation 1 (Eqn 1) below:

$$RGDP = \beta_0 + \beta_1 MCAP + \beta_2 VST + \beta_3 VTR + \beta_4 ASI + \mu \dots \text{(Eqn 1)}$$

Where:

RGDP	=	Real Gross Domestic Product
MCAP	=	Market Capitalization
VST	=	Volume of Stock Traded
VTR	=	Value of Transaction
ASI	=	All-Share Index
$\beta_1 - \beta_4$	=	Beta slope coefficients

β_0 = Intercept.
 μ = Disturbance or error term

4. RESULTS AND DISCUSSIONS

4.1. Analyzed Data

4.1.1 Descriptive Statistics

The descriptive statistics is seen in Table 1:

TABLE 1
DESCRIPTIVE STATISTICS

	Mean	Median	Maximum	Minimum	Std. Dev.	Observations
MCAP	5643.43	713.7	21904	6.6	7433.34	35
VST	801281	439007	3535631	20525	967381	35
VTR	429899	58545.3	2350876	225.4	595544	35
ASI	194426	130902	605096	1407.4	184631	35
RGDP	36134.4	27112.6	74694	14953.9	19753.1	35

Source: E E-Views 9.0 (2022)

From table 1, MCAP, VST, VTR, ASI, and RGDP averaged ₦5643.427 billion, ₦801280.9 billion, ₦429899.3 billion, ₦194426.1 billion, and ₦36134.42 billion respectively but deviated by ₦7433.341 billion, ₦967380.7 billion, ₦595543.7 billion, ₦184630.8 billion, and ₦19753.06 billion. Again, MCAP recorded a least and the peak value of ₦21904.04 billion and ₦6.600000 billion respectively. Further, VST recorded a least and the peak value of ₦3535631.0 billion and ₦20525.00 billion respectively. VTR recorded a least and peak value of ₦2350876.00 billion and ₦225.4000 billion respectively. Also, ASI recorded a least and peak value of ₦605096.4 billion and ₦1407.400 billion respectively. Lastly, RGDP recorded a least and the peak value of ₦74694.00 billion and ₦14953.91 billion respectively.

4.1.2. Stationarity Test

The Augmented Dicker Fuller-ADF test is therefore shown in table 4.2:

TABLE 2
STATIONARITY-ADF TEST

Variables	ADF Test Statistics	Test critical values @ 5%	Order of integration	Decision
MCAP	-5.813428	-2.957110	1(1)	Stationary
VST	-5.512314	-2.960411	1(1)	Stationary
VTR	-6.728399	-2.957110	1(1)	Stationary
ASI	-5.925983	-2.960411	1(1)	Stationary
RGDP	-4.312135	-3.562882	1(1)	Stationary

Source E-Views 9.0, 2022

All the variables were stable at 1st differencing justifying the reason for Johanson cointegration test

4.1.3. Johanson Cointegration Test-JCT

The co-integration test is seen in table 3:

TABLE 3:
CO-INTEGRATION (LONG RUN) TEST

Hypothesized Numbers of CE(s)	Trace Statistic	Prob.**	Max-Eigen Statistic	Prob.**
None *	140.1346	0.0000	53.29994	0.0003
At most 1 *	86.83467	0.0001	49.18924	0.0001

* Alternative hypothesis at 5% level is preferred

**MacKinnon-Haug-Michelis probs.

Source: E-Views 9.0, 2022

From the result, both the trace statistics and the and maximum Eigen statistics suggest the presence of at most 1 Cointegrating equation signaling that, NEG index have long run effects on economic growth.

4.2. Result Estimates and Discussion

The OLS estimate is in table 4:

TABLE 4
-OLS RESULT ESTIMATES

Regressand: RGDP

Variable	Coefficients	Standard Error	t-Statistics	Prob values
C	3.074322	0.482316	6.374085	0.0000
MCAP	0.637367	0.141824	4.494074	0.0206
VST	0.057382	0.378212	0.151718	0.8837
VTR	0.847868	0.257313	3.295081	0.0459
ASI	0.202264	0.591557	0.341918	0.7424
R ²	0.821689	Mean dependent var.		36134.42
Adj. R ²	0.811870	D-Watson stat.		1.516310
F-statistic	9.27401	Prob of the F-statistics		0.0000
Diagnostic Tests		F-Statistic	Prob.	
Heteroskedasticity Test:		2.274032	0.0744	
Ramsey Reset		3.029729	0.0931	
Normality Test		Jarque-Bera=	0.0596	

Source: E-Views 9.0 (2022)

The intercept denoted as C evidenced that, if all other factors were sustained, a unit rise (increase) in the regressors under will increase the regressand by 3.07 units and such increase is significant. Again, the R² and adj.R² estimated at 0.821689 and 0.811870 revealed that the model is fit for prediction. To further ascertain this claim, our Durbin Watson test is approaching 2, Diagnostic test supports that the model is spreads equally, normally distributed and well-specified. More so, the P-value of F-statistics revealed that, NEG index on the overall has high predictive power on economic growth. This conforms to Inimino, Bosco, & Abuo (2018) findings. Individually, MCAP and VTR are highly instrumental to the Nigerian RGDP as they had both positive (Coef. of MCAP= 0.637367; Coef. of VTR= 0.847868) and significant (P-Value of MCAP = 0.0206 & P-Value of VTR =0.0459). However, both VST and ASI improved the RGDP of Nigeria minimally. By implication, both VST and ASI have the potential to improve the Nigerian RGDP but at the moment are still very shallow. To This result, conforms to Abina, and Lemea (2019), Md and Jianguo (2018), Inimino, Bosco, & Abuo (2018); Odo, Anoke, Onyeisi and Chukwu (2017) findings but is at par with Agu (2018); Yusuf and Aminu (2016) findings.

5. CONCLUSION AND RECOMMENDATIONS

This paper concludes that, the Nigerian exchange group is instrumental to the Nigerian economy both on the short (S) and Long (L) run. Consequently, the following recommendations were made:

1. Regulators of the NEG should ensure that it trading and settlements activities are fully automated.
2. The regulators of the exchange group ensure that, the doctrine of transparency and fair trading should be upheld.
3. The Nigeria exchange group should soften the entry requirements of businesses
4. Regulators of the NEG should put in place policies which guarantee competitive participation thereby discouraging the "buy and hold attitudes" of most investors.

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