

## **Nigeria Capital Market Operation and Economic Growth: A Case of the Oil and Gas Sector**

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### **ABSTRACT**

*This study examines the effect of the Nigerian capital market operation on the development of the Nigeria oil and gas sector. To achieve this, two models were formulated and data for the period 1999-2009 were collated while the co-integration and Error Correction model were employed for analysis. The findings indicate that there exists a long run equilibrium relationship among the variables in both models. Based on the study, it is recommended that transparent and active stock market should be developed in the country and the level of awareness should be raised so that investors will be abreast with the happenings in the market.*

**Keywords:** *Market Capitalisation, Stock Market, Stock Prices, Economy.*

### **I. INTRODUCTION**

Over the years, Economists have been emphasizing the need for effective mobilization of resources as a catalyst for national development in any economy, which can only be achieved through the effectiveness in the mobilization and allocation of funds to different sectors of the economy, so as to allow them manage their human or material resources which will result in optimal output for a sustainable growth and development in any economy. Basically, the capital market is primarily created to provide avenues for effective mobilization of idle funds from the surplus economic unit and channel them into the deficit economic unit for long-term investment purpose. It, therefore, serves as a linkage or mechanism between the deficit sector and the surplus sector in any economy. The suppliers of funds are basically individuals and corporate bodies as government rarely supply funds to the market. The users of funds, by contrasts, consist mainly of corporate bodies and government.

The vital roles played by the capital market in the achievement of economic growth thereby enables government, industries, corporate bodies to raise long-term capital for the purpose of financing new projects, expanding and modernizing industrial concerns. A unique benefit of the capital market to corporate entities is the provision of long-term, non-debt financial capital. To determine the impact of stock market on the Nigeria economy, more funds are needed to meet the rapid development and expansion of the economy. The stock market serves as a veritable tool in the mobilization and allocation of savings among competing ends which are critical and necessary for the growth and efficiency of the economy. Therefore, the determination of the overall growth an economy depends on how efficiently the stock market performs its allocative functions of capital.

In capital market, the stock in trade is money which could be raised through various instruments under well-governed rules and regulations, which are carefully administered and adhered to by different institution's or market operators. It is, therefore, a fact not disputed that the rate of economic growth of any nation is inextricably linked to the sophistication of its financial market and specifically its stock market efficiency. The fund required by the corporate bodies and governments are often huge, sometimes running into billions of naira. It is, however, usually difficult for these bodies to meet such funding

requirements solely from internal source. Hence, they often look up to the stock market because it is the ideal source as it enables corporate entities and government to pool monies from a large number of people and institutions.

In view of these, below are some of the questions emanating from the aforementioned challenges so far. How could stock market through its crucial role stimulate economic growth in Nigeria? To what extent does the Nigeria stock exchange stimulate capital formation in the country? Does an increase in investment enhance stock market liquidity? It is no doubt, that stock market provides some services that ginger economic growth. This study, therefore empirically evaluate and investigates whether the stock market promotes economic growth. This study employs the use of econometric techniques to determine the relationship and linkage between the stock market and the Nigeria economy, which is poised to establish the effect of stock market on Nigeria economic growth.

## **II. LITERATURE REVIEW AND EMPIRICAL STUDIES**

The stock market being a market for dealing in medium to long-term securities provides facilities for stock brokers and traders to trade stock and other securities. It is a market for where long term funds are made available by the surplus unit to the deficit unit. According to Soyode and Oyedeji (2005), the stock market connotes ideas of surplus and also the savings that result from society income that have not been spent in procuring goods and services. Al-Faki (2006) stated that the capital market is a network of specialized financial institutions, series of mechanism, processes and infrastructure that in various ways facilitate the bringing together of suppliers and users of medium to long-term fund (capital) for investment in socio-economic developmental projects

Osaze (2009) sees the capital market as a driver of any economy to growth and development because it is essential for long-term growth capital formation. It is crucial in the mobilization of savings and channeling of such funds i.e. savings to profitable self-liquidating investment. Therefore, the Nigeria stock market provides the necessary lubricant that keeps turning the wheel of the economy. Okereke (2008) states that the capital market is made up of market and institutions which facilitates the issuance and secondary trading of long-term financial instruments. Unlike the money market which functions basically to provide short term funds, the capital market provides the industries and governments long term funds to meet their long term capital requirement such as financing of fixed investment like buildings, plants, machinery, bridges, e.t.c. Therefore, the capital market plays a very active role in the stimulation of economic growth and development however, in the absence of well functioning capital market, economic growth and development would be hampered, as the money market is not designed to provide such funds. Hence, the stock market is at that core of the capital market development in any country.

## **III. REVIEW OF EMPIRICAL STUDIES**

Several studies have been carried out by different scholars to determine how effective the stock market is, in the growth of the economy (oil and gas sector). In a study carried out by Barlett (2000), he stated that a rising stock prices have two main-effects on the economy; first it raises wealth in the economy. This increase in wealth raises the amount of consumer spending and thereby increases the wealth of the nation. Secondly, rising stock prices can increase investment spending. We see that one way a firm can finance investment spending, is to issue stock. If stock prices rise, it can raise more money per share of the stock issued.

Irving study of 2004 considered the links between stock exchanges and overall socio-economic development to be tenuous, nonexistent or even harmful;. He advised African countries not to devote further scarce resources and efforts to promoting stock exchange, since there are many weightier problems to address in Africa; high poverty level, in adequate social services and undeveloped infrastructure. Even if the resources were available, stock market could expose already fragile developing economies to the stabilizing effects of short term, speculative capital inflows.

The correlation between oil prices and the stock indexes at the daily, weekly and monthly levels for the two periods shows that very few relationships of statistical significance calculation using daily data yielded the most statistically significant results. Also Demirguc-Kunt and Maksimovic (1998) cited in Henry (2001), found that a relationship exist between economic growth and the stock market activity in the field of transmission of securities (secondary market) more than in fund channeling. Sule and Momoh (2009) found that the secondary market activities have impacted more on Nigeria per capita income by tending to grow stock market earnings though wealth than the primary market.

As shown by Moore *et al* (2006a), stochastic policy simulations within a flow of funds mode can shed light on the type of financial reforms policies for influencing outcomes for households, companies, banks and government. As Fleming and Giugale (2000) emphasize, a key advantage of the flow of funds is that it imposes internal consistency on analyses and forecasts, and provide an exposition of the complete financial implications of policy or other changes. Victor (2009), states that because the financial crisis is characterized by bank fragility, it may impair (through exchange rate and stock price effects) the financial intermediation function of domestic banks in Africa in three main ways;

- a. The immediate effect is a reduction in the supply of intermediary capital i.e. a credit squeeze, popularly known as a credit crunch;
- b. A collapse of the prices of real assets (e.g. residential houses) and company real assets, leading to a collateral squeeze;
- c. Price and other incentives for attracting deposits from household sector fall, leading to a contraction in the supply of savings i.e. a saving squeeze. He also states that the increase in banks competitiveness is matched by the ability of the banks to extend credit to households and companies.

There is inconsistent evidence on the importance of oil prices for stock markets. Kaul (2009) provide evidence that aggregate stock market returns in U.S., Canada, Japan and the U.K are negatively sensitive to the adverse impact of oil price stocks on those economies. Sofia and Helena (2009) results shows that oil price spikes depress international stock markets, but oil prices drops do not necessarily increase stock market returns. Overall, the results provide new evidence on the asymmetric effects of oil price fluctuations. Moreover, volatility of oil prices impacts negatively international stock market returns.

Beck and Levine (2004) shows that stock market development is strongly correlated with growth rates of real GDP per capita. More importantly, they found that stock market liquidity and banking development both predict the future growth rate of economy when they both enter the growth recession. Ariyo and Adelegan (2005) contend that the liberalization of capital market led to the growth of the Nigerian capital market, yet its impact at the macro-economy was negligible. Again, the capital market was instrumental to the initial 25banks that were able to meet the minimum capital requirement of ₦25 billion during the banking sector consolidation in 2005. Ewan *et al* (2009) appraise the impact of the stock market efficiency on the economic growth of Nigeria using time series data from 1961 to 2004. They found that the stock market in Nigeria has the potential of growth inducing but it has not contribution meaningfully to the economic growth of Nigeria, because of low market capitalization, low absorptive capitalization, illiquidity, misappropriation of funds among others.

A study by Alile in 2002 using Nigerian data provided some dissenting evidence that stock market development statistically had non significant effect on economic growth in Nigeria during the period 1980-2000. He interpreted the result to mean that the Nigerian stock market was unable to make significant contribution to rapid economic growth because of the existence of certain policies that blur the effectiveness of the vehicle or transmission mechanism through which stock market activities influence economic growth. However, Rajni and Mahendra (2007) employed a time series data for the period 2001-2005 on specific firms and found out that seven (7) out of the sixteen (16) firms listed on Fiji's stock market is volatile. The volatility of stock returns were then regressed against the interest rates and the results showed that the interest rates changes have a significant effect on

stock market volatility. Mohammed and Salahuddin (2008) collated data for the period from 1971 to 2006 for Pakistan and employed a co-integration analysis for testing the long run relationship and ECM for short run dynamics. The findings suggest a positive relationship between efficient stock market and economic growth both in short run and long run.

This study is not only to analyse the effect of capital market operation on the economy as a whole but also to examine the impact of the sector on the Nigerian Oil and Gas Industry.

**IV. METHODOLOGY**

This study employed secondary data (Bi-annual) and a time series analysis for the period of 1999-2009, which were obtained from sources like the Nigeria stock exchange Annual report, Central Bank of Nigeria Statistical Bulletin, Fact Book, e.t.c. In order to determine the robustness of the independent partial correlation between Nigeria Capital Market operation to the growth of the oil sector in and the economy at large, two models were employed, applying co-integration and error correction model to the data obtained. Thus, we use the gross domestic product as a proxy for growth, which is our dependent variable and stock price, market capitalization number of deals, which are the independent variables.

For the purpose of this study, certain modification is made to Sule and Momoh (2009) mode. Sule and Momoh (2009) based their model on Demirguc-kunt and Maksimovic (1998) theory which was modified to measure the impact of stock market on economic growth  

$$PCI = \beta_0 + \beta_1 mc + \beta_2 PER + \beta_3 NLS + \mu \dots\dots\dots (i)$$

Where PCI = Per capita income  
 MC = Market capitalization  
 NLS = No of listed Securities  
 PER = Price Earning Ratio, DY-dividend Yields

The basic variables employed for this study are market capitalization which denotes the size of the market, stock prices, number of deals which are the independent variable and the Gross Domestic Product (% contribution from the oil and gas sector) which is the dependent variable.

**Model 1**

$$GDP (oil) = F (MKT CAP, NOD, SKP, \mu) \dots\dots\dots (i)$$

It should be noted that GDP is a proxy for economic growth. For this model, GDP relating to the oil and gas sector will be employed

Where GDPoil = Gross Domestic product relating to oil and gas sector, MKT CAP = Market capitalization, SP = Stock Price, NOD = Number of Dealings,  $\mu$  = Stochastic variable (Error term)

$$GDPoil = \beta_0 + \beta_1 MCAP + \beta_2 NOD + \beta_3 SP + \mu \dots\dots\dots (i)$$

Transforming equ (v) into natural logarithm form, we have

$$\log GDP_{(oil)} = \log \beta_0 + \log \beta_1 MCAP + \log \beta_2 NOD + \log \beta_3 S \dots\dots\dots (ii)$$

**Model 2**

$$GDP = f (MRT CAP, SKP, NOD, \mu) \dots\dots\dots (ii).$$

It should be noted that GDP is a proxy for economic growth

Where GDP = Gross Domestic Product

*Econometric Function*

$$GDP = \beta_0 + \beta_1MRTCAP + \beta_2SKP + \beta_3NOD + \mu \dots \dots \dots (iii).$$

Transforming Eqn. (iii) into natural logarithm, we have  
 Log GDP = logβ<sub>0</sub> +logβ<sub>1</sub>MRTCAP +log β<sub>2</sub>SKP + logβ<sub>3</sub>NOD + μ..... (iv).

Where β<sub>0</sub>, is constant and it is the intercept of the econometric function. β<sub>1</sub>, β<sub>2</sub>, β<sub>3</sub>, are parameters that show the relationship between the dependent and the independent variable.

**V. DATA PRESENTATION**

The results obtained from the analyses of the two analyses are presented and discussed below:

**Table I: Interpretation of OLS Result for Model 1 and 2**

Dependent variables	Independent variable			
	Constant	SKP	MRTCAP	NOD
GDP <sub>(oil)</sub>	3.691363 (1.841817)	0.490071 (2.732978)	0.492988 (2.348234)	-0.199998 (-0.737911)
GDP	4.524127 (3.039103)	0.331674 (2.490230)	0.531779 (3.410259)	-0.168506 (-0.837035)

**Note:** the t-statistics is given in parenthesis

**Table II: Summary of Results**

	R	R <sup>2</sup>	Adj R <sup>2</sup>	Fc	Durbin Watson stat.
Model 1	0.95	0.9308	0.9186	76.20794	1.368372
Model 2	0.97	0.9577	0.9502	128.2757	1.281065

The tabular presentation of OLS result for model 1 and 2 can also be given in equation form. As it is written below,

**Model 1**

$$GDP_{oil} = 3.691363 + 0.490071(SKP) + 0.492988(MRTCAP) - 0.199998(NOD)$$

**Model 2**

$$GDP = 4.524127 + 0.331674(SKP) + 0.5331779(MRTCAP)-0.168506(NOD)$$

The above result shows that from both models a positive relationship exists between stock price, market capitalization and GDP (Oil) and GDP, while a negative relationship exists between number of deals and GDP (oil) and GDP. The constant parameter also shows a positive relationship to the dependent variables (GDP and GDP oil) in both models. This means that if all the explanatory variables are held constant, GDP (oil) will increase by 3.691363 and GDP will increase by 4.524127. The value of correlation co-efficient (r), in both model with a value of 95% in model 1 and 97% in model 2, shows that a strong positive relationship exist among the variables in both models. The coefficient of determination (r<sup>2</sup>) in both model, with a values of 0.9308 in model 1 and 0.9577 in model 2, shows that 93.08% variation or change in GDP (oil) and 95.77% change in GDP can be explained by the explanatory variable (SKP, MRTCAP, NOD) which the remaining 6.92% and 4.23% in both models is being handled by the stochastic error term in both models.

**UNIT ROOT TEST**

**Table III: ADF Unit Root test at level**

Variables	ADF test statistics	Mackinnon 5% critical values	Order of stationarity	Remark
GDP <sub>(oil)</sub>	-1.694644	-3.0294	1(0)	Not stationary
GDP	-1.844930	-3.0294	1(0)	Not stationary
SKP	-2.597976	-3.0294	1(0)	Not stationary
MKTCAP	-1.891134	-3.0294	1(0)	Not stationary
NOD	-1.659699	-3.0294	1(0)	Not stationary
ECM (Model 1)	-3.434869	-3.0294	1(0)	Stationary
ECM (Model 2)	-3.724005	-3.0294	1(0)	Stationary

The table above shows that the Mackinnon critical values at 5% are all greater than the ADF test, for all the variables in both models. This implies that they are not stationary. The ECM for both model are stationary. Therefore there is need to carry out test at 1st difference to see if the variables will be stationary.

**Table IV: ADF Unit Root Test at First Difference**

Variables	ADF test statistic value	Mackinnon at 5% critical values	Order of stationarity	Remark
GDP <sub>(oil)</sub>	-3.520168	-3.0400	1(I)	Stationary
GDP	-3.092087	-3.0400	1(I)	Stationary
SKP	-2.943547	-3.0400	1(I)	Not stationary
MATCAP	-1.769862	-3.0400	1(I)	Not stationary
NOD	-1.659699	-3.0400	1()	Not stationary

The above table shows that the dependent variable of model 1 (GDP<sub>oil</sub>) and that of model 2 (GDP) are stationary at first difference because their respective ADF statistical value are greater than Mackinnon critical value at 5%. However the independent variables (SKP, MKTCAP, NOD) are not stationary at 1st difference, therefore we proceed to 2nd difference to test their stationary.

**Table V: ADF Unit Root Test at Second Difference**

Variables	ADF test statistic value	Mackinnon at 5% critical values	Order of stationarity	Remark
SKP	-3.772758	-3.0521	1(2)	Stationary
MRTCAP	-2.118995	-3.052	1(2)	Not Stationary
NOD	-2.836922	-3.0521	1(2)	Not stationary

The above shows that SKP is stationary at 2<sup>nd</sup> difference while MRTCAD and NOD are not stationary. The test for stationary is being done at absolute term of the value.

**Table VI: Summary of Stationary**

Variables	Order of stationarity
GDP <sub>(oil)</sub>	1(I)
GDP	1(I)
SKP	1(2)
MRTCAP	-
NOD	-
ECM <sub>(model 1)</sub>	1(0)
ECM <sub>(model 2)</sub>	1(0)

The table above shows that GDP (oil) and GDP are stationary at 1st difference, ECM is stationary at level while SKP is stationary at 2<sup>nd</sup> difference. However, NOD and MRTCAP are not stationary but will be used because of their importance in explaining the Nigerian Stock Market.

### CO-INTEGRATION TEST

The co-integration test is performed using Johansen likelihood estimation equation, which is done to test whether a long-run relationship exist among the variables. If it shows that at least one co-integrating equation exist among variables under investigation, then a long run equilibrium relationship exist among them. The table below shows the summary of Johansen co integration tests conducted on the two models.

#### Model 1

**Table VII: Result of Johansen Co-integration Test**

Eigen value	Likelihood ratio	5% critical value	1% critical value	Hypothesized no of CE 1 <sup>st</sup>
0.811759	69.48779	47.21	54.46	None**
0.687393	37.75716	29.68	35.65	At most 1**
0.534647	15.66379	15.41	20.04	At most 2*
0.057719	1.129577	3.76	6.65	At most 3

The co-integration equation is specified below

$$GDP_{(oil)} = 6.499705 - 0.741436 SKP - 1.741329 MRTCAP + 1.997290 NOD$$

(0.10616)                      (0.242559)                      (0.33466)

The above result shows that there exist a long run relationship among the variables in the model as the likelihood ratio of 69.48779 is greater than the 5% critical value of 47.21 at the None hypothesized (None\*\*). The co-integration equations shows that there exist a positive relationship between the constant parameter, NOD and GDP (oil), while a negative relationship exist between SKP, MRTCAP and GDP<sub>(oil)</sub>

#### Model 2

**Table VIII: Result of Johansen Co-integration Test**

Eigen value	Likelihood ratio	5% critical value	1% critical value	Hypothesized no of CE (s)
0.788262	60.84838	47.21	54.46	None**
0.636259	31.35271	29.68	35.65	At most 1*
0.429507	12.13778	15.41	20.04	At most 2
0.074643	1.473946	3.76	6.65	At most 3

The co integration equation is

$$GDP = 6.185605 - 0.148026 SKP - 1.948884 MRTCAP + 2.041826 NOD$$

(0.16114)                      (0.48690)                      (0.62841)

This shows that there exist a long-run equilibrium relationship among the variables in the model because the likelihood ratio of 60.84838 is greater than the 5% critical value of 47.21 at none hypothesis (None\*\*). The co integration equation shows that there exist positive relationships between the constant parameter; NOD and GDP while a negative relationship exist between SKP, MRTCAP and GDP.

### ERROR CORRECTION MODEL

The table below shows the over parameterized and parsimonious ECM for model 1 and 2

#### Model 1

**Table IX: Overparameterised ECM**

Variable	Co-efficient	Standard Error	T-statistics	Probability
D(GDP (-1),2)	-0.506561	0.137642	-3.680283	0.0042
D(SKP,2)	0.402089	0.239541	1.678583	0.1242
D(SKP(-1), 2)	0.108638	0.223768	0.485492	0.6378
D(MRTCAP, 2)	-0.392128	0.762336	-0.514377	0.6182
D(MRT.CAP(-1),2)	0.258521	0.453328	0.570274	0.5811
D(NOD , 2)	0.388149	0.480070	0.808525	0.4376
D(NOD(-1),2)	0.205328	0.415713	0.493919	0.6320
ECM(-1)	-1.116356	0.232369	-4.804233	0.0007

$R^2 = 0.865637$   
Adjusted R = 0.771582  
Durbin Watson stat. = 2.2954

**Table X: Parsimonious ECM**

Variable	Co-efficient	Standard	T-statistics	Probability
D(SKP, 2)	0.062664	0.548688	0.114207	0.9107
D(MRTCAP(-1), 2)	-0.751005	0.930960	-0.806699	0.4333
D(NOD, 2)	0.126827	0.453964	0.279376	0.7840
ECM(-1)	0.681760	0.519725	1.311771	0.2107

$R^2 = 0.146389$   
Adjusted R = -0.036528  
Durbin-Watson stat. = 2.592435

The negativity of the ECM in the over parameterized ECM is in conformity with our apriori expectation. This implies that the present value of  $GDP_{oil}$  adjusts rapidly to changes in SKP, MRTCAP and NOD. The large values of ECM given as 111.6% show a feedback of that value from the previous period disequilibrium of the present level of  $GDP_{oil}$  in the determination of the causality between the past level of  $GDP_{oil}$  and the present and past level of SKP, MRTCAP and NOD. The coefficient of determination ( $R^2$ ) shows that about 86.56% variation in the dependent variable ( $GDP_{oil}$ ) can be explained by the explanatory variable (SKP, MRTCAD, NOD) while the remaining 13.44% is handled by the stochastic error term.

The coefficient of SKP and NOD in the parsimonious ECM is also in confirmedly with that of the over parameterized ECM as they are positively related to  $GDP_{oil}$ . While MRTCAP in the parsimonious model is also conformity with that of the over parameterized model as it is negatively related to  $GDP_{oil}$

**Model 2**

**Table XI: Overparameterised ECM**

Variable	Co-efficient	Standard Error	T-statistics	Probability
D(GDP (-1,2)	-0.595508	0.162618	-3.662002	0.0044
D(SKP,2)	0.182248	0.175562	1.038084	0.3237
D(SKP(-1), 2)	0.058999	0.143188	0.412039	0.6890
D(MRTCAP, 2)	0.036420	0.481457	0.075646	0.9412
D(MRT.CAP(-1),2)	0.156351	0.314060	0.497838	0.6294
D(NOD , 2)	0.102104	0.316790	0.322308	0.7539
D(NOD(-1),2)	0.056150	0.267861	0.209623	0.8382
ECM(-1)	-0.933259	0.297798	-3.133867	0.0106

$R^2 = 0.793857$   
Adjusted R = 0.649556  
Durbin-Watson stat = 1.852616.

**Table XII. Parsimonious ECM**

Variable	Co-efficient	Standard	T-statistics	Probability
D(SKP, 2)	-0.261087	0.246212	-1.060416	0.3069
D(MRTCAP(-1), 2)	-0.087867	0.295422	-0.297417	0.7705
D(NOD, 2)	-0.081239	0.203139	-0.399919	0.6953
ECM(-1)	0.570433	0.504981	1.129612	0.2776

$R^2 = 0.108645$   
Adjusted R = -0.082359  
Durbin-Watson stat = 3.059611

The negative sign of ECM in over parameterized ECM is in conformity with our apriority expectation. This implies that the present value of GDP adjust rapidly to changes in SKP, MRTCAP, NOD. The large value of ECM given as 93.32% shows a feedback of that value from the previous period disequilibrium of the present level from the previous period disequilibrium of the present level of GDP in the determination of the causality between the

past level of GDP and the present and past level of SKP, MRTCAP and NOD. The coefficient of determination ( $R^2$ ) shows that about 79.4% variation in the dependent variable (GDP) can be explained by the explanatory variable (SKP, MRTCAP and NOD) while the remaining 20.6% is left to the stochastic error term to handle.

The coefficient of SKP, MRTCAP and NOD in the parsimonious ECM is negatively related to GDP.

### Model 1

**Table XIII: Standard error test result**

Variable	Co-efficient	$\frac{\text{Co-efficient}}{2}$	Standard Error	H <sub>0</sub>	H <sub>1</sub>	Remark
SKP	0.402089	0.2010445	0.239541	Accept	Reject	Insignificant
MRTCAP	-0.392128	-0.196064	0.762336	Accept	Reject	Insignificant
NOD	0.388149	0.1940745	0.480070	Accept	Reject	Insignificant

### Model 2

**Table XIV: Standard error test result**

variable	Co-efficient	$\frac{\text{Co-efficient}}{2}$	Standard Error	H <sub>0</sub>	H <sub>1</sub>	Remark
SKP	-0.261087	-0.1305435	0.246212	Accept	Reject	Insignificant
MRTCAP	-0.087867	-0.0439335	0.295433	Accept	Reject	Insignificant
NOD	-0.081239	-0.0406195	0.203139	Accept	Reject	Insignificant

Decision Rule

If  $\frac{\text{Coefficient}}{2} > \text{standard Error}$  – Significant (Reject H<sub>0</sub> and Accept H<sub>1</sub>)

If  $\frac{\text{Coefficient}}{2} < \text{standard Error}$  – Insignificant (Accept H<sub>0</sub> and Reject H<sub>1</sub>)

The standard error test above shows that the parameters are insignificant in the explanation of the long-run as the standard error statistics are greater than the coefficients of the parameter divided by 2 in both models.

However, the F-test shows that the models are significant in the short and long run as they have F-statistics of 128.2757 in model 1 and 76.20794 in model 2, which is greater than the f-calculated 3.20

## VI. SUMMARY OF FINDINGS

Having run the OLS and the co integration techniques to test for the short and long-run relationship in both models, it was revealed that the main sector that drives the Nigeria economy in terms of revenue is the oil and gas sector. This was revealed in the short run as an increase in stock prices of oil firms in Nigeria contributes immensely to the share of oil and gas sector to GDP. The long run test revealed that there exists a long run equilibrium relationship among the variable in the models as the counteraction in both model is in deviation from the short run equation but it also justifies the fact that the oil and gas sector contributes majorly to the economic growth of Nigeria.

The short run relationship reveals that stock price and market capitalisation contributes positively to the share of oil and gas to GDP and the GDP as a whole, while the long run equation move in opposite direction that stock price and market capitalization negatively affect GDP oil and GDP as a whole.

## VII. CONCLUSIONS

This study was carried out to examine the effect of capital market on economic oil and gas sector in Nigeria. It has examine how the stock market operation has affected the activities the oil and gas sector and the economy as a whole both in the short run and in the long run

using times series data for Nigeria for the period of 1999 to 2009. However, from the results of the analysis, it shows that there exist a positive relationship between stock market and the oil and gas sector and the economy as a whole it was revealed that the market capitalization and the stock prices have positive influence on the share of oil and gas sector to GDP and the GDP as a whole in the short run and has a negative influence in the long run. Also, the number of deals has a negative influence on the share of oil and gas sector of GDP and GDP as a whole in the short run, while in the long run their relationship is positive.

Also, the test for the significance of the overall model (F-test) shows that both models are significant in the short and long run.

## VIII. RECOMMENDATIONS

The following recommendation are made base on the findings from the study:

- The removal of the double taxation effects on the returns of the investors in the stock market must be effected if the market is to develop as envisaged.
- A purposeful enlightenment should be carried far and wide to arouse the interest of potential investing public.
- The determination of stock prices should be deregulated
- There should be a review downward on the cost of raising funds in the market, so to enhance its competitiveness and improve attractiveness to the major.
- The market should be operated in a transparent manner.

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