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Articles

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Stock Market Development in Nigeria: Implications on Economic Growth and Vision 2020

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Abstract

This study uses time series estimates in analyzing the Nigerian economy for 18 years (1986 -2003). It is observed that there is a positive relationship between real gross domestic investment and the real GDP. This relationship is not only positive but also statistically significant at 5 per cent level. A positive and significant relationship also exists between capital market activities (proxy by stock market capitalization) and the real gross domestic product. This implies there is a link between capital market and economic growth. The paper therefore suggests that great effort is required to improve upon the efficiency of the Nigerian capital market. This will culminate in speedy economic growth thereby achieving Nigeria's target of becoming one of the twenty leading economies in the world by the year 2020.

Key words: Stock market, Economic growth, Vision 2020

SECTION ONE: INTRODUCTION

A Stock market constitutes a significant aspect of the financial systems in any economy and accounts for the level of economic growth and development. Effective stock markets channel funds that bring about proper allocation of resources. It acts as a financial intermediary between surplus funds and deficit funds institutions. Also, it serves as a source of fresh external capital for both companies and government which facilitates the broadening of industrial ownership and enables the government to maximize its tax revenue.

Basically, a stock market is a financial market that provides facilities for mobilizing long term funds. The world's stock markets have increased tremendously over the years. In line with this global trend, the Nigerian stock market has grown immensely over time. This fact is underscored by the phenomenal growth of market capitalization and value of shares traded on the exchange by 11150.37% and 12068.65% respectively between 1986 and 2002 (Oke and Mokuolu, 2005:56). This development has fueled the arguments over the role of stock market in economic growth. While some proponents affirm that the stock market contributes to economic growth; some researchers argue that development in the stock market is not significant to the level of economic growth.

In Nigeria, the need for economic growth is increasing with the demands of vision

2020. This demand entails that by the year 2020, Nigeria should be one of the first twenty economies in the world. The study intends to provide empirical evidence with respect to the relationship between the stock market and economic growth in Nigeria in line with the objective of vision 2020. In particular, the paper will attempt to measure the level of the stock market development on the Nigerian economy between 1986 and 2003. The rest of the paper is divided into five sections. Section two briefly reviews relevant and related literature on Nigerian stock market and economic growth. In section three the research methodology is employed. Section four presents the data analyses, results and discussion; while the last section contains a summary of research findings and the concluding part of the paper.

SECTION TWO: REVIEW OF RELATED LITERATURE

The Nigerian capital market can be divided into two broad categories namely the stock and commodity market. In the stock market bonds, shares, and derivatives are traded while commodity goods are traded on the commodity market. The stock market is further divided into two segments- primary and secondary markets. The Nigerian Stock Exchange (NSE) is the core of the capital market as it provides opportunities for individual and institutional participants to trade or liquidate their investments. History shows that the growth and development of modern economies were achieved and sustained through the stock market. Before the NSE was established, almost all formal savings and deposits went through the banking system.

The establishment of the NSE 47 years ago marketed a watershed in the nation's economic management as it laid the foundation on which the present investment profiles are rooted. The Exchange commenced operation in Lagos on 5th June 1961. Trading on the Lagos Stock Exchange during the early years was generally poor due to low rate of capital formation, poor communication and lack of responsiveness to the mechanics of stock exchange dealings. In 1977, the Lagos Stock Exchange was renamed and reconstituted into the Nigerian Stock Exchange (NSE). At present, there are eight branches/ trading floors with head office in Lagos. The trading floors are located in Lagos, Kano, Ibadan, Abuja, Onitsha, Port Harcourt, Kaduna, Adamawa and Benin.

2.1 Stock Market Development and Vision 2020

The role of a well developed stock market cannot be overemphasized if vision 2020 is to be realized. The year 2020 is only twelve years away. It is therefore crucial that adequate effort be put in place to ensure that the stock market is better equipped to meet the demands of this goal. The vision 2020 agenda was an after math of the former president Olusegun Obasanjo's regime. The New York based Investment banking group Goldman Sachs painted a picture of Nigeria as a country that was expected to be a member of the league of world class economies by the year 2025 if it took the necessary action. However, the deadline was back dated to 2020 (Daily Independent 2007).

The inauguration of President Musa Yar'Adua in 2007 witnessed the creation of a development plan that would take into consideration the inefficiencies in the Nigerian economic system. Even though the strategy for the actualization for vision 2020 is yet to be made known, the President has enumerated some seven point agenda that will be the concern of his administration. The expectation that vision 2020 will be a reality means that by the year 2020, Nigeria should be in the same economic class with top world economies like Canada, Austria, Belgium, France, Switzerland, Greece, Italy and Russia just to mention a few (Daily Independent 2007).

Economic growth, generally referred to as Gross Domestic Product (GDP) can be defined as the increase in the value of goods and services produced by the economy (Okiti, 2007: 56). A country's stock market reveals the state of health or buoyancy of the economy. The most important aspect of a capital market is in its provision of opportunity for trading on equities and long-term debt. Intermediation between the needs of firms and investors signifies the core function of capital markets. This enables the functioning of capital markets in obtaining information about the companies, corporate regulation and investment risk diversification. Well functioning stock markets ensure that both the corporation and investors get fair prices for their securities. It also ensures that valuable projects are financed and negative value projects are rejected (Bekaert, Garcia and Harvey, 1995).

Levine (1997) noted that stock markets in developing countries account for disproportionately large share of the boom in global stock market activity. Stock market development is positively correlated with long run economic growth (Oke and Mokuolu, 2005:58). Atje and Jovanovic (1993) as cited in Oke and Mokuolu (2005:58) found significant correlations between economic growth and the value of stock market for 40 countries over the period 1980-1988. The capital market is the most credible source of medium and long term financing and a base for sustainable development.

Okeke (2004:32) and Adedipe (2004:24) noted some of the roles of the capital market. They range from mobilization of domestic savings and investment in one central place, provision of efficient mechanisms for mobilizing medium and long- term funds for financing long term economic activities, facilitation of healthy and transparent channel for transfer of enterprises from the public sector to the private sector, encouragement of marketability of new issues by providing access to finance new and smaller companies. Elakama (2004:14) concurred that an efficient capital market mobilizes and allocates greater proportion to those companies with the highest prospective rates of returns after giving due allowance for risk.

Capital markets also promote the control of the economy by constituting itself into a stabilization agent of the government (Gbede, 2000:9). It also protects the investors. Ologunde et al (2006) examines the relationships between stock market capitalization rate and interest rate using regression. Results showed that the prevailing interest rate exerts positive influence on stock market capitalization rate. Indeed the stock market is a tool for the actualization of vision 2020 in Nigeria because it influences economic growth.

SECTION THREE: METHODOLOGY

3.1 Specification of the Model

The Gross Domestic Product (GDP) is a measure of economic activity. This study adopts a Cobb-Douglas production function to establish that the level of Real GDP is a function of real Gross Domestic Investment (GDI) and other activities in the capital market. This relationship is stated thus:

RealGDP= f (RealGI, SMC)........(1)

where
RealGDP = real gross domestic product,
RealGI = real gross domestic investment
f = functional relationship;
SMC = Stock market capitalization.

The functional form of equation (1) above is:

$$RealGDP = A[RealGI]^{\beta_1}[SMC^{\beta_2}]e \quad \ldots(2)$$

The variables in the equation above are as previously defined
A = efficiency parameter
e = error term

Consequently, a log-linear specification is represented thus:

$$Log(RealGDP) = Log(A) + \beta_1 Log(RealGI) + \beta_2 Log(SMC) + Log\ e \quad \ldots(3)$$

Given that $Log(A) = \beta_0$, and $Loge = u$, equation (3) becomes

$$Log(RealGDP) = \beta_0 + \beta_1 Log(RealGI) + \beta_2 Log(SMC) + u \quad \ldots(4)$$

For the purpose of this study, the model represented by equation (4) above will be estimated. Moreover, the expected signs of the coefficients of explanatory variables are:

$$\beta_1 > 0\ ;\ \beta_2 > 0$$

3.2 Data analysis Techniques

Econometric software MICROFIT 4.1 was used in running the regression. In an attempt to estimate the model above, the Ordinary Least Squares Estimation technique is used. The regression covers the period after Structural Adjustment Program (SAP) from 1986-2003.

3.3 Sources of Data and Measurement of Variables

Some of the secondary sources of data employed in this study were derived form the IMF's International Financial Statistics, online, the World Bank database as reported in Iyoha (2002) and Central Bank of Nigeria-Statistical Bulletin (2003). These data are as highlighted in appendix one (Table 3,1).

The real gross domestic product is measured as the nominal GDP deflated by the consumer price index (1986=100). The real gross domestic investment is measured as gross fixed capital formation deflated by the consumer price index (1986=100) and capital market activities are measured by stock market capitalization.

SECTION FOUR: DATA ANALYSIS

The result is as reported in Table 4.1 below where equation 4 above was estimated. It could be observed that the parameters of the estimated regression conform to their 'a priori' expectations. Moreover, the R-squared and adjusted R-squared using the sample period 1986-2003 are quite high. The R-squared (which is a coefficient of multiple determinations) is approximately in the neighborhood of 67% in the regression. The adjusted R-Squared, which is the R-squared corrected for degree of free is also in the neighborhood of approximately 63%. This implies that the regression has good fits and indicates that more than 60% variation in real gross domestic product is explained by real gross domestic investment and capital market activities.

From the regression results, it is also apparent that the D.W statistic, which is a measure of autocorrelation and the extent to which the regression results can be relied upon are approximately 2. This means that these results are free from the problem of autocorrelation. The values of D.W statistics also indicates that the t-ratios of estimated parameters can be relied upon in making valid inference about the vibrancy of the Nigerian capital market.

Table 4.1 Ordinary Least Squares Estimation(1986-2003)

Dependent variable is LRGDP
18 observations used for estimation from 1986 to 2003

Regressor	Coefficient	Standard Error	T-Ratio[Prob]
C	8.1717	1.0480	7.7978[.000]
GI	.25193	.11106	2.2684[.039]
LSMC	.093735	.017349	5.4030[.000]

R-Squared	.67275	R-Bar-Squared	.62912
S.E. of Regression	.12209	F-stat. F(2, 15)	15.4185[.000]
Mean of Dependent Variable	11.4900	S.D. of Dependent Variable	.20048
Residual Sum of Squares	.22360	Equation Log-likelihood	13.9536
Akaike Info. Criterion	10.9536	Schwarz Bayesian Criterion	9.6180
DW-statistic	1.7379		

The regression results are as reported in Table 4.1 above using the 1986-2003 samples. This period is a reflection of the deregulation of financial markets in the Nigerian economy. This result shows that there is a positive but insignificant relationship between real gross domestic product and real gross domestic investment. A positive and significant relationship also exists between stock market activities and the real gross domestic product in this period.

With respect to the contribution of the stock market to the real gross domestic product during the financial deregulation period, Table 4.1 indicates that the coefficient of SMC in the regression equation for the sample period 1986-2003 is 0.0937. This means that a =N=1m increase in stock market activity led to =N=0.0937m increase in real output measured by the real gross domestic product. The intercept of the regression is 8.172 which imply that the economy productive efficiency remains at this level. The main inference that could be drawn from the above results is that Nigerian stock market has become more vibrant since the introduction of financial sector reform measures in the economy.

SECTION FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION

The study adopts a Cobb-Douglas production function to investigate the relationship between the level of real gross domestic product, which is a measure of economic activity, and real gross domestic investment as well as the other activities in the capital market. The study finds that there is a positive relationship between real gross domestic investment and the real gross domestic product. This relationship is not only positive but also statistically significant at 5 per cent level. A positive and significant relationship also exists between stock market activities (proxied by stock market capitalization) and the real gross domestic product.

In conclusion, the stock market is the pivot of any financial system since it aids economic growth and development. As an emerging market, the Nigerian stock market faces numerous challenges as enumerated in the study. To overcome these challenges the policy makers must work out strategies to address the challenge. In this regard, we hereby make the following recommendations:

1. It is imperative that non-financial sectors listed on the Nigerian Stock Exchange should recapitalize. This could be achieved through merger and acquisition. The synergy effects will lead to increase in market capitalization and will also give the listed companies a competitive edge locally and internationally.
2. The market capitalization, a proxy for capital market activity can also be improved upon if Nigerian Stock Exchange is opened up to enhance foreign investment inflow to Nigeria by offering securities, projects, marketplaces, investor safeguards that compete with those offered in the developed markets.
3. The Nigerian Stock Market should encourage more activities in the Second tier Securities market by allowing SMEs to seek public quotations at minimal efforts. The listing requirements for the second-tier securities market could be relaxed to accommodate more companies.

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Appendix 1

Table 3.1 Data used for the regression

Year	RGDP	SMC	RGI
1986	68432.8	6794.8	7337.8
1987	92061.3	8297.6	8273.0
1988	78740.8	10020.7	5183.2
1989	81575.9	12848.8	6756.1
1990	87951.2	16348.4	10616.3
1991	96780.7	23124.9	10765.8
1992	113781.5	31270.0	12320.2
1993	91980.3	47440.0	10825.6
1994	77163.5	66370.0	7225.7
1995	96093.4	180310.0	5627.7
1996	102982.2	285820.0	6482.0
1997	99015.1	281960.0	7194.7
1998	87821.4	262520.0	6144.4
1999	96080.2	294105.0	5302.3
2000	134861.0	466058.7	5329.9
2001	128584.7	648449.5	9206.4
2002	113208.4	747599.8	8477.3
2003	146527.5	1324898.0	8795.6

Sources

(I) Central Bank of Nigeria, Statistical Bulletin(2003)
(ii) The World Bank, See Iyoha (2002) p. 264.
(iii) IMF's International Financial Statistics
(iv) Nigerian Securities and Exchange Commission.

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