

An Assessment of Nigerian Stock Exchange Market Development to Economic Growth

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Abstract

This research investigates the effect of Nigerian stock exchange market development on economic growth using a 20 year time series data from 1990-2010. The method of analysis is ordinary least square techniques. The study measures the relationship between stock market development indices and economic growth. The stock market capitalization ratio was adopted as a proxy for market size while value traded ratio and turnover ratio were used as proxy for market liquidity. The study revealed that market capitalization and value traded ratio have a negative correlation with economic growth while turnover ratio has a strong positive correlation with economic growth. The policy makers and other institution relevant should put effort towards tuning market capitalization and value trade ratio into significant positive in the near future, so as to encourage economic growth in line with stock market development.

Keywords: Nigerian Stock Exchange, Stock Market Development, Economic Growth

1.0 Introduction

Globally, the state of the capital market gives an insight of the state of health of a nation's economy as it measures the stability of the nation's economy to the extents to which economic stability can rely upon it. The level of National Economic Development and the degree to which most of economic activities can effectively rely on the safety of the capital market are major indicators of a healthy balance between a sound financial system and macro-economic stability. In the light of this assumption that Nigerian stock exchange was established. The growth and development of the capital market in Nigeria can be traced to 1949 with floating of N600, 000 (more than 300,000 pounds sterling) worth of government stock. However an organized market for secondary trading of issued stock was lacking.

In the year 1958, the federal government sets up a committee headed by R.H Barback to examine the viability of fostering a share market in Nigeria. In their report, the committee (1959) recommended among other that:

- a. Facilities for dealings in shares be created
- b. Establishment of share transfer mechanism
- c. To put in place measures that will encourage savings and issues of securities of government and private organizations.

In the same year of this report (1959) the nearly established central Bank of Nigeria in an attempt to evolve a capital market floated the first FGN development loan of N4 million on behalf of the federal government and manage the stock since there was no capital market. The recommendations of the Barback report coupled with the need to ensure sustainability and efficient management of the FGN development loan stock. Nigerian stock exchange through the promulgation of Lagos stock exchange Act of 1961, it was the first stock exchange in West Africa and the sixth in Africa. The exchange open its doors for business on June 5, 1961, with an authorized share capital of N10,000 divided into 500 shares of N20 each with 19 securities listed for trading in line with this, the Lagos stock exchange was constituted into the Nigerian stock exchange in 1977 and was to have branches in major cities to meet the aspiration of the users of its service.

The harsh operating environment hampered the performance of most companies as shown in the quarterly results of quoted companies, and this raises unemployment, security instability and pressure on the stock market. The impact of the global economic meltdown worsened the scenario as foreign investors shunned assets considered risky while local investors sought refuge in short-time securities.

In a developing economy like Nigeria, the development and growth of stock market have been spread in recent times. Despite the size and illiquid nature of stock market, its existence and development could have important implications for economic activities. For example, some writers have noted that even in less developed countries capital markets are able to mobilize domestic savings and able to allocate funds more efficiently. As such, stock market can play a vital role in inducing economic activities in less developed country like Nigeria by linking investment where it is needed from public mobilization of such resources to various sectors certainly helps in achieving economic development and growth.

Many studies in Nigeria revealed that the role of stock market has a positive impact on economic development and growths.

Most of the studies noted that Nigerian stock exchange market encourage economic growth (Olofin and Afangideh, 2008), these studies in Nigeria found positive impact from stock market development to economic growth. A very recent study by Ake and Ognaliqui (2010) posited that Dovala stock exchange does – not affect Cameroonian economic growth.

On the strength of the above, therefore, the aim of this research is to dig out the empirical evidence in the context of Nigeria regarding the role of stock market development on economic growth. Specifically, this research investigated the role of stock market size and liquidity on economic growth.

The objectives are tested with following hypothesis.

1. Ho. There is no significant relationship between stock market and economic growth.
2. Ho: There is no significant relation between stock market liquidity and economic growth.

The remaining part of this paper is organized as follows: Section 2 comprises of literature review, section 3 describes the research methodology, and section 4 presents the result and discussion, while section 5 is about the conclusion and recommendation of the paper.

2.0 Literature Review

2.1 Concept of Capital Market

Capital market is defined as the market where medium and long term finance can be raised (Akingbohugo, 1996). Capital market offers varieties of financial instrument that enable economic agents to pool, price and exchange risk. Through assets with attractive yields, liquidity and risk characteristics, it encourages saving in financial form. This is very essential for government and other institutions in need of long term funds (Nwankwo, 1999). According to Al-Faki, (2006), the stock market is a network of specialized financial institutions, series of mechanism, which to facilitate the bringing together of suppliers and users of medium to long term capital for investment in economic development projects.

Many attempts have been made by previous writers to relate growth of capital market with the stock market that reduces both liquidity shock and productivity shock of businessmen to investment fund as well as enhancing the production capacity of the nations thereby leading to higher economic growth.

2.2 Review of Related Empirical Literature

Tuncer and Alovast (2010) examined stock market growth and found that a positive correlation between stock market development and economic activities. According to Agarwal (2001) the study of stock market development and economic growth in African countries revealed a positive relationship between different indicators of the stock market performance and economic activities.

In Nigeria, several authors have attempted to investigate the relationship between stock market development and economic growths.

Similarly Abu (2009) examined whether stock market development encourage economic growth in Nigeria, he employed the error correlation approach. The economic growth result reveled that stock market development raises economic growth. However, he recommended the removal of impediment to stock market development which comprises of legal and regulatory barriers, tax, creating enabling environment where business based, employment policies that will increase the productivity and efficiency of firms as well as encouraging of the Nigerian securities exchange commission to facilitate the growth of the market. Beck (2003), Adam and Sanni (2005) examined the roles of stock market on Nigeria's economic growth using Granger-causality test and regression analysis. The authors discovered a one-way causality between GDP growth and market capitalization and a two-way causality between GDP growth and market turnover. They also observed a positive and significant relationship between GDP and turnover ratios.

Similarly, Chee et al (2003), Bahdu (2006) indicated that stock market development has a significant positive impact on economic growth in Malaysia. The authors also reported that stock market development Granger-causes economic growth. The study by Muhammad et al (2008) suggested that there is a long-run relationship between stock market development and economic growth. Liu and Hsu (2006) reported a positive impact on economic growth of stock market development in Taiwan, Korea and Japan. The works of Francia et al (2007), Barasory (2008), showed that shareholder protection causes stock market development and eventually economic growth.

In the same vein, Osinubi (2003) ventured into assessing whether "stock market promotes economic growth". The study used the least square regression using data from 1980-2000. The result indicates positive link between economic growth and stock market development. The result furthered suggested that, the pursuit of policies geared towards rapid development of the stock market.

Ted et al (2005) examine the empirical linkage between stock market development and economic growth in India. The authors found support for the revenue of stock market development and economic development for the post liberalization period. Yartey ,and Agarwal (2007) examined critical issues and challenges of stock market development in sub-Saharan Africa and found that stock markets have contributed to the financing of the growth of large cooperation's in certain African countries.

This study concluded inconclusive evidence on the impact of stock market on economic growth in African countries, but agreed that the stock market value traded assumed to be positively and significantly associated with growth.

Mishkin (2001) and Coparale, Azarmi, and Ghen (2004) provided the evidence that organized and manage stock market stimulate investment opportunities by recognizing the financing productive projects that lead to economic activity, mobilizing internal savings (domestic) help to diversity risks, and facilitate exchange of goods and services. Capasso (2003) assessed the Linkages between stock market development and economic growth within the context of a dynamic general equilibrium framework of information asymmetries, endogenous contract choice and capital accumulation. The findings indicate that stock market activity is closely related to show activity, with firms having greater evidence toward issuing equity (rather than debt) as capital accumulation proceed.

Luntel and Khan (1999) and Hondroyianms et al (2005) reported a bidirectional between stock market development and economic growth. This research is very import because the Nigerian stock market capitalization has declined from over N13 trillion in 2007 to N9.918 trillion in 2010. The all share index has also fallen from 57,990.22 points to approximately 24,770.52 points in the same period. Furthermore, the confidence of shareholders and investors assumed to be eroding.

3.0 Research Methodology

This study employed secondary data obtained from Nigerian stock exchange fact book, various years, Securities and Exchange Commission annual reports and accounts, and from the relevant literatures (books, journals, previous research papers and electronic sites). The time series data cover the period 1990-2010, using correlation and linear regression.

3.1 Model Specification

The research is based on the null hypothesis that there is no significant relationship between stock market development and economic growth in Nigeria. And the model was adopted from the work of Demirgüç – Kunt and Levine (1996) and Ewhale et al (2009) which states that $GDP = a + b(MCR) + b(VTR) + b(TOR) + e$

Where:

GDP = Gross Domestic Product at 1990 facto cost over the time period.

MCR = stock market capitalization ratio over the time period.

VTR = value traded ratio is domestic stock over the time period

TOR = turnover ratio over the time period O and B are unknown parameters to be estimated while U_t is the error term.

In view of the above equations, thus, stock market development can be measured by three basic. This includes stock market size which measured by stock market capitalization and stock market liquidity measured by total valued traded ratio and turnover ratio.

4.0 Result and Discussion

In this section, the results are presented and major findings are discussed. The section started with correlation nature table as shown below:

Table 1: Correlation Matrix

	GDP	MCR	VTR
GDP	1		
MCR	- .334(.112)	1	
VTR	- .126(.328)	.966** (.000)	1
TOR	.908** (.000)	-.214 (.223)	- .032(.456)

** Correlation is significant of the 0.01 level (1-tailed)

Source: Generated by the researcher from the Annual Reports and Accounts of Nigerian Stock Market. Using Quantitative Micro Software E view 5.1

From the table 1 above the correlations are as follows: GDP and stock market capitalization ratio -0.334; GDP and value trade ratio -0.126; and GDP and turnover ratio 0.907.

This indicates that stock market capitalization and value of share traded in the Nigerian stock exchange has a significant negative relationship with the Gross Domestic Product of factor cost in Nigeria. This study chooses a correlation coefficient ± 0.50 as a benchmark for the relationship between variables. We can conclude that stock market capitalization and values traded are significantly and negatively correlated with GDP.

Table 2: Measure of Individual Contribution and co Linearity

Model	Unstandardized coefficients		Standardized coefficients			Collinearity statistics	
	B	Std Error	Beta	T	Sig	Tolerances	Vif
(constant)	426126.3	34179.755		12.567	.000		
Stock market capitalization ratio	-1983.119	726.160	-1.437	-2.731	.020	.034	30.532
Value traded ratio	19865.498	7962.938	1.283	2.495	.030	.034	29.178
Turnover ratio	11463.873	2146.902	.642	4.743	.001	.496	2.020

Source: Generated by the researcher from the Annual Reports and Accounts of Nigerian Stock Market. Using Quantitative Micro Software E view 5.1

From table 2, to determine the individual contribution of the stock market shows to GDP growth, Beta indicates (1.44) followed by value traded (1.28) and the least is turnover (0.642). The column labeled sig. test the statistical significance of the individual contribution of the variable. The stock market capitalization is significant at 2% level of significance. Value traded at 3%. This shows that the contribution of stock market capitalization and value traded ratios are not statistically significant in this research. As such the significant value for turnover is 0.1% which is below the 5% bench mark for this research. This research therefore, concludes that, stock market indices tested, only the stock market turnover statistically significantly contributes to the growth of the GDP in Nigeria.

The derived equation $GDP = 426126.3 - 1983 MCR + 19866 VTR + 11464 TOR$, indicates that there is positive relationship between GDP liquidity (VTR and TOR).

Discussion of the Result

One of the aims of this study to explore the nature of relationship (if any) between the GDP and stock market development indexes, and between stock market development indices themselves. From Table 2, the correlations are as follows: GDP and stock market capitalization ratio = -0.334; GDP and Value Traded ratio = -0.126; and GDP and Turnover ratio = 0.907. This shows that stock market capitalization and value of shares traded in the Nigerian stock exchange has negative relationship with the Gross Domestic product at factor cost in Nigeria. This negative correlation is a very weak one. This means that increased GDP is expected to cause a decreased in market capitalization and value traded of shares on the Nigeria stock exchange. Since the significant (1-tailed) value is above the 0.05 significant levels (see Table 3), we can conclude that the suggestion that stock market capitalization and value traded are negatively correlated with GDP is not statistically significant and should not be taken serious.

On the other hand, the value of 0.907 shown for turnover ratio means that there is a very strong relationship between GDP and turnover ratio. This value is statistically significant at 0.01 level of significance which is below 0.05 level bench marked for the test, (See Sig. 1-tailed)

Likewise, the correlation between stock market development indices shows: stock market capitalization and value traded = 0.966; stock market capitalization and turnover ratio = -0.214; and value traded and turnover ratio = -0.032. This shows that stock market capitalization and value traded have a very strong correlation which is statistically significant at 0.01 below the bench market of 0.05 levels. On the country, the negative correlation shown below stock market capitalization and turnover ratio, and turnover and value traded are not statistically significant and should not be taken serious.

In a nutshell, this study establishes who statistically significant relationships: a strong positive relation between GDP and turnover ratio, and a strong positive relationship between stock market capitalization ratio and value traded ratio.

From Table 1, we form the equation of the relationship thus:

$$GPD = 426126 - 1983MCR + 19866VTR + 11464TOR$$

(34180)(726) (7963) (2417)

Adjusted R-Squared (Adj R²) = .873

F-test_{0.5} = 33.115 (.0001) < F_{tab} = 27.2

Durbin – Watson (DW) = 1.607

5.0 Conclusions and Recommendation

The study assess the Nigerian stock exchange market development on economic growth using time series data from 1990 – 2010. The ordinary least square technique was used to assess the correlation between stock market development and economic growth and between stock market indexes. The result indicates that stock market capitalization ratio gives very weak negative correlation.

The study recommended that policy makers and other institutions relevant should put effort towards tuning market capitalization values, trade ratios into significant positive in the near future, so as to encourage economic growth in line with stock market development. Therefore, encouraging more private limited liability companies and informal sectors to access market for fresh capital

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Appendix Table**Number of Deals, Market Capitalization Ratio, and Value Traded Ratio, Number of Deals and Turnover Ratio (1990 – 2010)**

year	All-Share Value Index (1984=100)	Number of Deals	Market Capitalisation (MC)	Gross Domestic Product (GDP) at 1990 Constant Basic Prices	GDP Growth Rate	MC Ratio	Total value of Shares Traded (TVST)	TVST Ratio= Stock Market Liquidity	Turnover Ratio			
			N' Billion	N' Billion	%	%	N' Billion	%	%			
	(1)	(2)	(3)	(4)	(5)	(6)=(3)÷(4)	(7)	(8)=(7)÷(4)	(9)=(7)÷(3)			
1990	513.3	39,270	16.3	267.37	13.02	6.09	0.23	0.09	1.41			
1991	783.0	41,770	23.1	265.38	-0.81	8.70	0.24	0.09	1.04			
1992	1,107.6	49,029	31.2	271.37	2.26	11.50	0.49	0.18	1.57			
1993	1,543.8	40,398	47.5	274.83	1.28	17.28	0.80	0.29	1.68			
1994	2,205.0	42,074	66.3	275.45	0.23	24.07	0.99	0.36	1.49			
1995	5,092.0	49,564	180.4	281.41	2.16	64.11	1.84	0.65	1.02			
1996	6,992.0	49,515	285.8	293.75	4.39	97.29	6.98	2.38	2.44			
1997	6,440.5	78,089	281.9	302.02	2.82	93.34	10.33	3.42	3.66			
1998	5,672.7	84,935	262.6	310.89	2.94	84.47	13.57	4.36	5.17			
1999	5,66.4	123,509	300.0	312.18	0.41	96.10	14.07	4.51	4.69			
2000	8,111.0	256,523	472.3	329.18	5.45	143.48	28.15	8.55	5.96			
2001	10,963.1	426,163	662.5	356.99	8.45	185.58	57.68	16.16	8.71			
2002	12,137.70	451,850	764.9	433.20	21.35	176.57	59.41	13.71	7.77			
2003	20,128.90	621,717	1,359.3	477.53	10.23	284.65	120.40	25.21	8.86			
2004	23,884.50	973,526	1,925.9	527.58	10.48	365.04	225.82	42.80	11.73			
2005	24,085.80	1,021,967	2,900.1	561.93	6.51	561.10	262.94	46.79	9.07			
2006	33,358.30	4,021,780	5,120.9	595.82	6.03	859.47	470.31	78.93	9.18			
2007	57,990.22	2,615,020	13,294.6	634.25	6.45	2,096.11	2,100.00	331.10	15.80			
2008	31,450.78	3,535,631	9,563.0	672.2	5.98	1,423.07	1,679.14	249.80	17.56			
2009	20,827.17	1,739,365	7,030.8	716.9	6.66	980.72	685.72	95.65	9.75			
2010	24,770.52	1,984,235	11,200.0	789.5	7.20	1418.63	797.551	101.02				

Sources: Nigerian Stock Exchange Annual Report and Accounts (various years), Central Bank of Nigeria (CBN) Statistical Bulletin, Golden Jubilee Edition, December, 2008 and CBN Annual Reports and Statement of Accounts (various years).