

CAPITAL MARKET DEVELOPMENT AND ECONOMIC GROWTH IN NIGERIA: AN EMPIRICAL ANALYSIS

Ologunwa, O. P. and O. V. Sadibo

Department of Economics,

The Federal University of Technology, Akure, Nigeria

opologunwa@futa.edu.ng; ovsadibo@futa.edu.ng

Abstract

In the recent times, the literature appears to emphasize a sound capital market as an important driver of economic growth due to its ability to provide liquid asset for investment. The issue raised in this paper is about the effect of capital markets on economic growth. If a strong capital market is a panacea to economic growth, why do least developed economies not embrace it? To what extent can economic growth be affected by capital markets? These issues were theoretically explained in the methodology and the data analysis was subjected to empirical test. Using aggregate data for growth indicators and capital market indicators, we adopted a structural dynamic model to investigate the issue. It was found that capital market ratio and turnover ratio are both significant and positive drivers of economic growth in Nigeria and that stock markets affect economic growth through savings mobilization. It is asserted that large, liquid and efficient stocks markets can ease savings mobilization. The paper recommends that stock market should be made attractive to foreign economies, although it can also spell doom during a burst. However, if the funds had been carefully utilized, , the economy may not be significantly affected during a burst..

Keywords: capital market, market capitalization, turnover ratio; economic growth

Doi: 1.1/fjmt.2016/v1n1p5

1. Introduction

Economic growth is perceived as continuous increase in the economic activities of a nation, measured by its Gross Domestic Product (GDP). A growing economy is said to experience development when factors that cause economic growth are recognized. One of such economic factors is the availability of funds for private investment. Though the money sector and, specifically commercial banks are expected to provide required funds for private investors, they do so only for short tenures and investors need an institution that will provide funds for longer periods, for which banks are not suited. The implication of this is that private investment, an important component of GDP, will be hampered and this, in turn, may reduce growth.

Capital market, according to the literature, always complements the effort of the banking sector by mobilizing financial resources for long-term private investment. According to Demirguc-Kunt and Levine (1996), many profitable investments require a long-term commitment of capital, and investors are reluctant to relinquish control of their savings for long periods. If economic growth partly and importantly rests on capital market activities, then, capital market development should precede economic growth. In fact, Hicks (1969) argues that innovation will be reflected in the economy when financial capital is made accessible, that is, financial capital makes it easy to develop projects that require large financial outlays for long periods before the projects ultimately yield profits. To this end,

Bencivenga, et al (1996) argue that economic growth rests on the well behaved, well-functioning financial market. However, the capital market does not, on its own, automatically guarantee growth. Ahmed and Ansari (1998) point out that capital markets work well and hence contribute to economic growth when the government policy is directed toward efficient allocation of financial resources. Inanga (1978) had earlier suggested that capital markets appear to be growth-enhancing if there exist well developed accounting, auditing and financial disclosure standards, together with enforced legal and regulatory framework for investor protection. In the process of meeting these conditions, Levine (1991) concludes, the channels through which or extent to which capital market enhances growth can be explained by how well that market functions. In 2003, Electronic Business was commissioned in Nigeria so as to give investors access to the Central Securities Clearing System (CSCS) database online for the purpose of monitoring movements in their stock accounts. These reforms and others were put forward so as to continuously ensure an environment conducive for the effective functioning of the capital market.

From the foregoing, it is clear that the capital market and its operations are not new in Nigeria. Recently, the sector underwent series of reforms in order to strengthen its performance. Given the fact that the capital market is capable of mobilizing investment fund for the promotion of private enterprise, it must be the case that the inception of such market will help Nigerian economy to grow. However, the existence of capital market may not guarantee private investment and hence economic growth. In fact, it may be the case that capital market works through private investment to impact on growth. If this is the case, then the growth effect of capital market may be absorbed by investment. Therefore, it is important to assess the extent to which capital market affects the growth performance of the economy.

This paper focuses on the assessment of capital market development as it affects economic growth, and specifically on the stock market segment. What informs this choice is that not only are there available data for stock market performance (measured by its activities), all other intermediaries participate in the stock market and therefore the stock market seems to encompass other sectors.

The paper is made up of five sections. Section one is essentially an introduction, providing a broad perspective of the paper as well as its motivation. The next section provides a survey of existing literature on the channels of capital market for influencing economic growth. In section three, issues regarding methodology and models for estimation are discussed. Section four presents data, results and a discussion of their interpretations. The final section of the paper provides a summary of findings, conclusions as well as policy implications arising from the empirical findings.

2. Literature Review

2.1 Theoretical Review

There are two lines of arguments in the analysis of the importance of financial system to economic growth. One line of argument is that the financial system is not important for economic growth; another line of argument stresses the importance of the financial system in mobilizing savings, allocating capital, exerting corporate control and easing risk management. More importantly, and in relation to this study, Levine and Zervos (1996) indicated that some theories provided a conceptual basis for the belief that larger, more

efficient stock markets boost economic growth. Bencivenga, Smith and Starr, (1996) and Levine (1991) argue that stock market liquidity, i.e., the ability to trade equity easily, is important for growth.

However, Conte and darrat (1988) argues that stock market liquidity, no matter how large, is an unimportant source of corporate finance. Similarly, Spears (1991) says that stock market liquidity will not enhance incentives for acquiring information about firms or exerting corporate governance because of the agency problem involved between stockholders and management of firms. In fact, in contrast to the position of Robison (1952), Devereux and Smith (1994) emphasize that greater risk sharing through internationally integrated stock market can actually reduce savings rates and slow economic growth. The suggestions that stock market development can limit economic growth by making it easy and counterproductive have also been asserted by researchers Levine Rose (1996).

The channels through which capital market development affects economic growth have been classified into four. The first is through stock market liquidity. Levine (1991) and Bencivenga, Smith and Starr (1996) argue that stock market may provide liquidity in the economy because savers have liquid assets, while firms have permanent use of capital, raised by issuing equities. Liquid stock markets reduce the downside risk and cost of investing in projects that do not pay off for a long time. According to Levine and Zervos (1996), a liquid stock market ensures that initial investors do not lose access to their savings for the duration of the investment project because they can quickly, cheaply and confidentially sell their stake in the company. They thus conclude that more liquid stock markets facilitate investment in long-term, potentially more profitable projects, thereby improving the allocation of capital and enhancing the prospect for long-term growth.

The second way by which stock markets affect economic growth is through risk diversification, which the market provides through international integration. Galinger George (1994), and spears (1991) show how stock markets provide a vehicle for diversifying risks. Their models demonstrate that greater risk diversification can influence growth by shifting investment into higher-return projects. However, other research suggests that, in some circumstances, lower risk can slow growth. They particularly show that reduced risk through international diversification can reduce saving rates, slow growth and more importantly reduce economic welfare.

The third channel is in the area of information acquisition. Stock market, according to spears (1991) and (1995) Kiviet, can spur economic growth through acquisition of information. Larger and more liquid stock market will make it easier for investors who have gotten information to trade at posted prices (Levine and Zervos, 1996). The investors are able to make money before the information become widespread and prices change. This ability to profit from information about firms will stimulate investors to research and monitor firms. Jensen and Murphy (1988) show that efficient stock markets help mitigate the principal-agent problem. It makes it easier to tie managerial compensation to stock performance. In addition, takeover threats induce managers to maximize a firm's equity price.

The last channel through which the stock market affects economic growth is through savings mobilization. It has been suggested that large, liquid and efficient stocks markets can cause savings mobilization. By agglomeration of savings, stock markets enlarge the set of feasible investment projects (Levine and Zervos, 1996). Since some worthy projects require large

capital investment, and some enjoy economies of scale, stock markets facilitate resource mobilization and can boost economic efficiency and accelerate long-run growth. From another perspective, however, it has been argued that new equity issues account for very small frontiers of corporate investment (Mayer, 1988). This casts doubt on the potency of stock markets for amassing capital.

2.2 Empirical Evidence

Levine and Zervos (1996), using a cross-country pooled time series regression to evaluate the relationship between stock market development and economic growth for over forty one countries over 1976-1993, found that stock market development is positively correlated with measures of financial intermediary development. On the whole, the data suggests that stock market development is positively associated with economic growth.

Moreover, they found that the instrumental variable procedures indicate a strong connection between predetermined component of stock market development and long-run growth. Levine and Zervos (1996) findings agree with Dermirgue-Kunt and Levine (1996) findings that individual indicators of stock market development are positively correlated with individual indicators of financial intermediary development for forty one countries. They found that stock market size measured by market capitalization and liquidity measured by total value traded/GDP ratio are positively correlated with all indicators of financial intermediary development in these countries. The financial intermediary development indicators used were the ratio of liquid liabilities to GDP and the ratio of credit to private sector to GDP.

3.0 Research Methodology

The theoretical framework used for this paper is an endogenous growth model without financial markets by the Dow and Gary (1997) called structure of preferences. This creates liquidity risk and also productivity shocks that create production risk. It is assumed that an economy consists of an infinite sequence of three-period-lived; agents and a countable infinity of agents are born each period. There is no population growth.

$$C(c_1, c_2, c_3) = -[c_2 + \theta c_3]^{-\gamma/\gamma} \dots\dots\dots 1$$

Where $\gamma > 0$, $-\gamma + 1$ is the coefficient of relative risk aversion, and c_1, c_2, c_3 are age 1, 2 and 3 consumption. Since there is no utility from age one consumption, all income is saved. Thus, the financial system and policy cannot alter the savings rate. θ is an individual-specific random variable realized at the beginning of age 2. There are two production opportunities. The first is a liquid "storage" technology. Investment of one good at t yields $n > 0$ goods at $t + 1$ or $t + 2$, where t is the time indexed by $t=0, 1, 2, \dots$. The second production technology involves the risky and illiquid activity of forming and investing in "firms" that have a higher expected return than the liquid technology. In a two-stage, two-period process, consumption goods are produced using capital, labour, and human capital. Human capital is non-tradable and represents the knowledge and skills embodied in individuals. In the first stage of firm production, individuals augment human capital.

This takes period $t + 1$ and some of period $t + 2$, so that only age three agents have human capital. Each individual's accumulation of human capital depends positively first, on his interactions with others Rajan and Luigi (1998), then, the amount of resources invested by the individual, and finally, on the average amount of capital invested and maintained in the

firm for two periods. Letting q equal the fraction of age one income w_t invested in the firm by an agent born in t , his human capital H is

$$H_{t+2} = H\hat{W}_{t+2}(qw_t)^\sigma \dots\dots\dots 2$$

where H is a constant, qw_t is the resources invested by the agent, and \hat{W}_{t+2} , so that type 0 agents prematurely withdrew capital from firms to the detriment of the firm's remaining members. With a "stock market", however, agents can conduct mutually and socially beneficial transactions.

Equation 4 from 3 shows that stock markets increase firm efficiency. Even if the investment decisions q are equal, the stock market economy will grow faster than the non-stock market economy because stock markets eliminate the premature liquidation of firm capital. As shown in the equations below, the higher the proportion of the economy's resources invested in firms, the faster will be the steady state growth rate. If agents are sufficiently risk averse, the proportion of resources devoted to firms is higher with a stock market. So in this case, no firm resources are prematurely liquidated and all stored goods are consumed by initial spending agents. Given this proposition, the agents will consume their stored goods plus the stock value claims to period $t+2$ firm produced goods, i.e. the value of their firm stock. Assuming that agents hold diversified portfolios, agents solve

$$\begin{aligned} \max_{q^s} & - \left(\frac{1-\pi}{\gamma} \right) \left[(1-q^s)nw_t + P\pi\theta\psi H \left(\overline{W}_{t+2}^s \right)^\delta (q^s w_t)^\sigma \right]^{-\gamma} \\ & - \left(\frac{\pi}{\gamma} \right) \left[\pi\theta\psi H \left(\overline{W}_{t+2}^s \right)^\delta (q^s w_t)^\sigma + \frac{(1-q^s)nw_t}{P} \right]^{-\gamma} \dots\dots\dots 3 \end{aligned}$$

This equation says that no firm capital is liquidated. The two period's equilibrium growth then becomes

$$g_y^s = H\pi^{-b} = H\rho q^s = H\pi^{-\delta} \rho \frac{\sigma\pi}{1-\pi+\sigma\pi} \dots\dots\dots 4$$

These two equations demonstrate that the higher the proportion of the economy's resources invested in firms, the faster will be the steady state growth rate. If agents are sufficiently risk averse, the proportion of resources devoted to firms is higher with a stock market ($q^s > q$).

Following equation 4, the economic functional specification is given by the following equation

$$\text{GROWTH} = aX + f(\text{STOCK}) + u \dots\dots\dots 5$$

Where X is a set of control variables, a is a vector of coefficients on the variables in X , f is the estimated coefficient on STOCK , and u is an error term.

One of the goals of this research work is to assess the independent partial correlation between stock market development and economic growth. Therefore, the Augmented Dickey Fuller (ADF) test was used to examine the stationarity of variables. ADF test is a test for unit root. However, this test is not reliable for small sample data set due to its size and

power properties Harris, Richard (1997). Two new tests, i.e., Dicky-Fuller Generalized Least Square could solve the problems of data size and power properties. The Augmented ARDL ($p, q1, q2, \dots, qk$) is given by the following equation Granger (1969)

$$\alpha(L,P)y_t + \beta_1(L,q)x_{it} + \lambda w_t + \varepsilon_t$$

$$\text{where } \alpha(L,P) = 1 - \alpha_1L - \alpha_2L^2 - \dots - \alpha_pL^p$$

$$\beta_1(L,q1) = \beta_{10}L + \beta_{12}L^2 + \dots + \beta_{1q1}L^{q1}$$

y_t is an independent variable, λ is the constant term, L is the lag operator such that $Ly_t = y_{t-1}$, w_t is a vector of deterministic variables such as intercept term, time trends, or exogenous variables with fixed lags.

After the discussion of theoretical model regarding the ARDL technique, we investigate the existence of a long-run relationship in the form of the unrestricted error correction model for each variable as follows regarding our issues:

$$\Delta \text{GRGDP} = \alpha_0 + \alpha_1 t + \alpha_2 \Delta \text{GRGDP}_{t-1} + \alpha_3 \Delta \text{MCR}_{t-1} + \alpha_4 \text{GRPCI}_{t-1} + \alpha_5 \text{MCR}_{t-2} + \alpha_6 \Delta \text{FDI}_{t-1} + \alpha_7 \text{FDI}_{t-2} + \alpha_8 \Delta \text{SE}_{t-1} + \alpha_9 \text{SE}_{t-2} + \eta_t \dots \dots \dots 6$$

$$\Delta \text{GRGDP} = \beta_0 + \beta_1 t + \beta_2 \Delta \text{GRGDP}_{t-1} + \beta_3 \text{GRPCI}_{t-1} + \beta_4 \Delta \text{STR}_{t-1} + \beta_5 \text{STR}_{t-2} + \beta_6 \Delta \text{FDI}_{t-1} + \beta_7 \text{FDI}_{t-2} + \beta_8 \Delta \text{SE}_{t-1} + \beta_9 \text{SE}_{t-1} \mu_t \dots \dots \dots 7$$

$$\Delta \text{GRGDP} = \beta_0 + \beta_1 t + \beta_2 \Delta \text{GRGDP}_{t-1} + \beta_3 \text{GRPCI}_{t-1} + \beta_4 \Delta \text{TOR}_{t-1} + \beta_5 \text{TOR}_{t-2} + \beta_6 \Delta \text{FDI}_{t-1} + \beta_7 \text{FDI}_{t-2} + \beta_8 \Delta \text{SE}_{t-1} + \beta_9 \text{SE}_{t-1} \mu_t \dots \dots \dots 8$$

Where GRGDP is the growth rate of real gross domestic product, GRPCI is the real growth rate of GDP per capita, MCR is the market capitalization as share of GDP, STR is the share of traded ratio, TOR is the turnover ratio, FDI is the share of foreign direct investment in GDP, SE is the secondary school enrolment used to proxy for human capital, t is time trend variable, while η & μ are error terms in the models. The first part and the rest of the equations with the parameters α_2, α_3 , and β_2, β_3 , and so on, represent the short-run dynamics of the models and the long-run phenomenon.

4.0 Results and Discussion

The paper presents the result of pair-wise correlation that shows the relationship between the variables: the essence of presenting this is to achieve our objectives. Table 1 shows that the growth rate of real gross domestic product (RGDP) was around 4% while the average real growth rate of GDP per capita was 1%.

The real growth rate of foreign direct investment (GDFDI) declined at the rate the stock market; turnover ratio appears to be the most performing indicator. The Table shows that the highest real growth rate of GDP in the period was 19 percent, while the lowest real growth rate of GDP was -7%. In the same vein, the maximum real growth rate of GDP per capita occurred in 1% on average. Out of the three indicators of capital market performance, only the turnover ratio (TOR) grew significantly (average growth rate was 3.2% per year), while that of market capitalization ratio (MCR) and share of traded ratio (STR) grew at less than 1 percent. The maximum growth rate of real foreign direct investment was around 58% while the minimum growth rate was around -41%. In the case of the capital market indicators, the maximum growth rate of market capitalization ratio was 0.06% and the minimum was 0.01%. Also, the maximum growth rate of share of traded ratio was 5.21%

while the minimum was 0.08%. Turnover ratio had the highest growth of approximately 10% while the minimum growth rate is 0.94%.

Table 1: Descriptive Statistics of the variables

	GRGDP	GRPCI	GRFDI	MCR	STR	TOR
Mean	0.04	0.01	-0.02	0.01	0.83	3.22
Median	0.04	0.00	-0.05	0.01	0.47	2.10
Maximum	0.19	0.08	0.58	0.06	5.21	9.81
Minimum	-0.07	-0.08	-0.41	0.01	0.08	0.94
Std. Dev.	0.05	0.04	0.23	0.01	1.07	2.68
Skewness	0.51	-0.22	0.67	2.92	2.79	1.26
Kurtosis	4.00	3.02	3.26	11.47	11.42	3.30
Jarque-Bera	2.30	0.21	2.11	118.98	114.96	7.22
Probability	0.32	0.90	0.35	0.00	0.00	0.03
Sum	1.17	0.15	-0.49	0.37	22.36	86.97
SumSq. Dev.	0.07	0.04	1.37	0.00	30.04	186.52
Observations	27	27	27	27	27	27

Authors' Computation, 2015

This is an indication that the capital market development, appears to be improving, at least in terms of performance.

The result of correlation exercise presented in Table 2, shows the correlation coefficient of the variables. Two out of three indicators of capital market are positively correlated with GDP growth rate. However, such association is very weak, due to the low coefficient of the variables. In particular, turnover ratio (TOR) tends to be negatively related to GDP while share traded ratio and market capitalization ratio relate with GDP positively.

Table 2: Pair wise correlation matrix of the variables

	GRFDI	GRPCI	MCR	STR	TOR	GRGDP
GRFDI	1.00	-0.14	0.07	0.11	-0.14	-0.01
GRPCI	-0.14	1.00	0.02	0.12	-0.05	0.65
MCR	0.07	0.02	1.00	0.87	-0.22	0.15
STR	0.11	0.12	0.87	1.00	-0.46	0.27
TOR	-0.14	-0.05	-0.22	-0.46	1.00	-0.24
GRGDP	-0.01	0.65	0.15	0.27	-0.24	1.00

Source: Authors Computation 2015

The Table shows a positive and strong relationship between GDP per capita growth and real GDP growth rate. This type of association is consistent with what was found in the literature and it is an indication that growth of GDP tends to improve the welfare of the populace if GDP per capita were to be used for such a measure.

The variations explained by our regressors are not up to one percent in any of the three models. It appears that the effect of capital market indicators on economic growth is not immediate. That is, any shock in the capital market tends not to have an immediate effect on economic growth. Perhaps the reason may be that some of the variables are likely to be non-stationary and hence tend to have a unit root. The result of the unit root test shown in table 3, suggests that out of seven variables, five were stationary at levels, two stationary at first difference. It must be noted that the decision for I (0) or (1) was taken at 1% critical value. The implication of this is that some variables are non-stationary and hence violated the assumptions of OLS. That is, there appears to be a systematic association between a

particular variable and its time trend. Thus long run information will be lost if we revert to the use of OLS.

The next level is to examine whether the variables co-integrate, whether they have long-run convergence. The result of co-integration test is presented in Tables 4, 5, and 6 respectively. There are four co-integrating equations in the model for market capitalization ratio model (MCR), four co-integrating equations in the model for share of traded ratio (STR) and four co-integrating equations in the model for turnover ratio (TOR).

Table 3: Augmented Dikey-Fuller Unit Root Test

VARIABLES	LEVELS				FIRST DIFFERENCE				REMARK
	ADF	1% CRITICAL	5% CRITICAL	10% CRITICAL	ADF	1% CRITICAL	5% CRITICAL	10% CRITICAL	
ECMMCR	-5.65	-3.72	-2.99	-2.63					I(0)
ECMTOR	-6.00	-3.72	-2.99	-2.63					I(0)
ECMSTR	-5.74	-3.72	-2.99	-2.63					I(0)
GRFDI	-7.47	-3.71	-2.98	-2.63					I(0)
GRGDP	-3.18	-3.71	-2.98	-2.63	-6.55	-3.72	-2.99	-2.63	I(1)
MCR	2.43	-3.79	-3.01	-2.65	2.09	-3.81	-3.02	-2.65	I(1)
GRPCI	-4.01	-3.71	-2.98	-2.63					I(0)
STR	0.45	-3.77	-3.00	-2.64	1.30	-3.77	-3.00	-2.64	I(1)
TOR	-1.97	-3.71	-2.98	-2.63	-4.25	-3.72	-2.99	-2.63	I(1)

Source: Authors Computation 2015

Table 4: Johansen Co integration Test result for Market Capitalization Ratio

Hypothesized		Trace	5 Percent	1 Percent
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Critical Value
None **	0.66571	63.33537	47.21	54.46
At most 1 **	0.514643	35.94171	29.68	35.65
At most 2 *	0.387855	17.86993	15.41	20.04
At most 3 *	0.200694	5.600274	3.76	6.65

*(**) denotes rejection of the hypothesis at the 5%(1%) level

Source: Authors Computation 2015

Table 5: Johansen cointegration Test result for Share of Traded Ratio

Hypothesized		Trace	5 Percent	1 Percent
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Critical Value
None **	0.630265	59.88285	47.21	54.46
At most 1 *	0.5463	35.00864	29.68	35.65
At most 2	0.41845	15.25067	15.41	20.04
At most 3	0.065711	1.699226	3.76	6.65

*(**) denotes rejection of the hypothesis at the 5%(1%) level

Source: Authors Computation 2015

Table 6: Johansen Co integration Test result for Turnover Ratio

Hypothesized		Trace	5 Percent	1 Percent
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Critical Value
None **	0.647152	62.77608	47.21	54.46
At most 1 **	0.51337	36.73315	29.68	35.65
At most 2 *	0.413862	18.72689	15.41	20.04
At most 3 *	0.193358	5.371895	3.76	6.65

*(**) denotes rejection of the hypothesis at the 5%(1%) level

Source: Authors Computation 2015

Table 7 Error Correction Model

Independent Variables	1	2	3
C			
GRGDP(-1)	1.18	1.13	
	-	[0.28]	[0.30]
GRGDP(-2)	0.23	-	-
	[0.15]	-	-
GRGDP(-3)	-0.36	-	-0.24
	[0.01]	-	[0.19]
GRFDI	0.025	0.02	0.019
	[0.00]	[0.01]	[0.01]
GRFDI(-1)	0.02	0.02	0.01
	[0.01]	[0.01]	[0.01]
GRFDI(-2)	-0.02	-0.01	-0.02
	[0.01]	[0.01]	[0.01]
GRPCI	0.21	1.08	1.22
	[0.08]	[0.28]	[0.32]
GRPCI(-1)	1.82	-1.11	-0.97
	[0.36]	[0.32]	[0.35]
GRPCI(-2)	-	-	-
	-	-	-
GRPCI(-3)	0.14	-	0.25
	[0.23]	-	[0.25]
MCR	-	-	-
MCR(-1)	-	-	-
MCR(-2)	3.12	-	-
	[0.84]	-	-
TOR	-	-	0.09
	-	-	[0.04]
TOR(-1)	-	-	-0.04
	-	-	[0.01]
TOR(-2)	-	-	-
	-	-	[6.39]
STR	-	-	-
STR(-1)	-	-0.01	-
	-	[0.00]	-
STR(-2)	-	-	-
ECMMCR(-1)	-0.47	[0.11]	-
ECMTOR(-1)	-	-	-1.50
	-	-	[0.35]
ECMSTR(-1)	-	-1.35	[0.40]
R-SQRD	.72	0.62	0.72
F-STATISTIC			
DW	1.66	1.63	1.75

Source: Authors Computation 2015

Since the models in the Table 6 shows long run relationship among the variables, error correction model was specified and the result is presented in table 7. The table analyze the market capitalization ratio model, the share of traded ratio and the turnover ratio model.

The value in the parenthesis is the standard error of the coefficient while the one above the parenthesis is the coefficient value. Our findings indicate that not all capital market indicators are significant for economic growth, although they are all necessary. The structural dynamic version of our model implies that market capitalization ratio that is the share of market capitalization in GDP is very important to economic growth. Continuous increase in the share of market capitalization in GDP implies availability of fund for investment and as investment increases, GDP rises considerably. This result is consistent with the proposition of Levine (1991) where it was individually established that increase in market capitalization leads to easy access to fund for investment and hence increase in economic growth. . Meanwhile, it must be noted that an increase in market capitalization does not immediately result in economic growth. Rather, lagged market capitalization leads to economic growth. What this implies is that there appears to be a delay of one or two years before market capitalization can effect on economic growth. Perhaps the reason for this is that the immediate effect could be reflected in the level of output (GDP) and this positive effect on output level could then lead to economic growth.

In the same vein, our findings show that turnover ratio, the share of market capitalization in value traded, positively affect economic growth. As is the case of market capitalization ratio, lagged value of turnover ratio significantly affect economic growth. Levine (1991) and Bencivenga et al (1996) argue that if the share of market capitalization in the value of stock traded continues to increase, more liquidity will be supplied to the economy savers will have liquid assets, while firms will have permanent use of capital raised by issuing equities. Liquid stock markets reduce the downside risk and cost of investing in projects that do not pay off for a long time. According to Levine and Zervos (1996), a liquid stock market ensures that initial investors do not lose access to their savings for the duration of the investment project because they can quickly, cheaply and confidentially sell their stake in the company. They thus conclude that more liquid stock markets ease investment in long-term, potentially more profitable projects, thereby improving the allocation of capital and enhancing the prospect for long-term growth.

5.0 Conclusion

In the recent time, the literature appears to emphasize sound capital market as an important driver of economic growth due to its ability to provide liquid asset for investment. This implies that what hinders the economic growth of some economies, particularly countries in the developing world, is low financial development. This research work assessed how the Nigerian stock market has since its inception in the 1960s, been effective in driving economic activities. The issue raised in this paper is about the potency of capital market in generating economic growth. To what extent can economic growth be affected by capital markets? These issues were theoretically explained in the methodology and the data analysis was subjected to empirical test.

Using aggregate data for growth indicators and capital market indicators, we adopted structural dynamic model to investigate the issue. It was found that capital market ratio and turnover ratio are both significant and positive drivers of economic growth in Nigeria. If the market capitalization ratio increases by 10 percent, the economy will grow by 31 percent, if it is reduced by 10 per cent, the economy will shrink by 31 per cent. According to Spears (1991), capital market spurs economic growth through acquisition of information.

Also, the stock market affects economic growth through savings mobilization. It is asserted that large, liquid and efficient stocks markets can ease savings mobilization. By

agglomeration of savings, stock markets enlarge the set of feasible investment projects (Levine and Zervos, 1996). Since some worthy projects require large capital investment, and some enjoy economies of scale, stock markets that ease resources mobilization can boost economic efficiency and accelerate long-run growth. Our results support these propositions and so, we conclude that capital market development positively affects the growth of the economy. This serves as contribution to the existing literature. As has been found in some developing economies like Columbia (Levine, 1996); Chile and Indonesia (Dermurgue-Kunt and Levine (1996) Nigeria is also an economy where the capital market plays an important role.

Many recommendations have been made for the improvement of the economy. Thus the set of recommendations submitted here will be an addition to the existing recommendations. Government still needs to do more, particularly in the area of investment in uncertainty with its concomitant corruption. The authorities in the stock market should extend company listing and dealings to some medium scale enterprises. Awareness about how the stock market operates in Nigeria is very low. Another important thing to focus on is to make the stock market attractive to the foreign economies. Although, it might be argued that external attraction can also spell doom during burst, if the funds are carefully utilized during the boom, when it bursts, the economy may not likely be significantly affected.

Biographical note. Messrs Ologunwa, O. P. and O. V. Sadibo are lecturers in the Department of Economics in the Federal University of Technology, Akure, Nigeria.

References

- Ahmed, S. N. and M. I. Ansari. (1998). "Financial Sector Development and Economic Growth: The South-Asian Experience," *Journal of Asian Economics*. 9: 503-17.
- Bencivenga, V. , B. Smith, and R. Starr. (1996). "Equity Markets, Transaction Costs, and Capital Accumulation: An Illustration." *World Bank Economic Review*. 10(2): 241-265.
- Conte, Michael, and Ali Darrat. (1988). "Economic Growth and the Expanding Public Sector: A Re-examination," *Review of Economics and Statistics*. 70(2): 322-30.
- Darrat, Ali, and F. Lopez. (1989). "Has Inflation Uncertainty Hampered Economic Growth in Latin America?" *International Economic Journal*. 3(2): 1-15.
- Dermurgue-kunt and Levine (1996) "Stock Market Development and the Financing Choices of Firms," *World Bank Economic Review*. 10: 341-369.
- Dow, James and Gary Gorton. (1997). "Stock Market Efficiency and Economic Efficiency: Is There a Connection?" *Journal of Finance*. 52: 1087-129.
- Gallinger, George. (1994). "Causality Tests of the Real Stock Return-Real Activity Hypothesis," *The Journal of Financial Research*. 17: 271-288
- Granger, C. J. (1969). "Investigating Causal Relationships by Econometrics Models and Cross Spectral Methods," *Econometrica*. 37: 425-35.
- Harris, Richard. (1997). "Stock Markets and Development: A Re-assessment," *European Economic Review*. 41: 139-46.
- Hicks, John. (1969). *A Theory of Economic History*. Oxford, U.K.: Clarendon Press.

- Kiviet, Jan F. (1995). "On Bias, Inconsistency, and Efficiency of Various Estimators in Dynamic Panel Data Models," *Journal of Econometrics*. 68: 53-78.
- Levine, Ross, and Sara Zervos. (1996). "Stock Market Development and Long-run Growth," *World Bank Economic Review*. 10(2): 323-339.
- Rajan, Raghuram and Luigi Zingales. (1998). "Financial Dependence and Growth," *American Economic Review*. 88: 559-586.
- Robinson, Joan. (1952). *The Rate of Interest, and Other Essays*. London: Macmillan.
- Spears, Annie. (1991). "Financial Development and Economic Growth Causality Tests," *Atlantic Economic Journal*. 19: 66.
- Thornton, John. (1995). "Financial Deepening and Economic Growth in Developing Countries," *Economia Internazionale*. 48(3): 423-30.
- World Bank. (1999). *World Development Report 1998/99: Knowledge for Development*. Washington, D.C.: Oxford University Press.