DOES STOCK MARKET DEVELOPMENT RAISE ECONOMIC GROWTH? EVIDENCE FROM NIGERIA

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ABSTRACT. This paper investigates whether stock market development raises economic growth in Nigeria, by employing the error correction approach. The econometric results indicate that stock market development (market capitalization-GDP ratio) increases economic growth. The recommendations therein include: removal of impediments to stock market development which include tax, legal, and regulatory barriers; development of the nation's infrastructure to create an enabling environment for where business can strive; employment of policies that will increase the productivity and efficiency of firms as well encourage them to access capital on the stock market; enhancement of the capacity of the Nigeria Security and Exchange Commission to facilitate the growth of the stock market, restore the confidence of stock market participants and safeguard the interest of shareholders by checking sharp practices of market operators (particularly speculators).

1. INTRODUCTION

The role of the financial system in promoting economic growth (and development) cannot be over emphasized. The financial system comprises of the central bank, commercial banks, mutual funds, brokerage firms, discount houses, and stock exchange, to mention just few. These institutions trade in financial instruments such as domestic currency, foreign currency, stocks, bonds, derivatives and so on, and in the process mobilize funds from surplus unit (savers) to deficit unit (investors). This helps business corporations to increase investment and expand production, and ultimately accelerate economic growth.

The controversies surrounding the role of financial system in the economy started with Schumpeter (1912) who argued that in a well functioning financial system, banks help to facilitate economic growth by enhancing technological innovation through identification and funding of entrepreneurs with the best chance of successfully implementing innovative products as well as production process. Supporting this view, Bagehot (1873) and Hicks (1969) asserted that the development of the financial sector helped to trigger industrialization in England by increasing the access of the people to funds, which in turn they used to finance and execute capital projects. Recently, Levine (1991) argued that developed stock market reduces both liquidity shock and productivity shock of businesses. Similarly, Levine and Zervos (1998), and Khan and Senhadji (2000) stressed that the establishment of stock market has played a significant role in the development of banking institutions, particularly in emerging market economies. Thus, the authors believe that the development of the financial sector (and stock market) contribute meaningfully to economic growth.

Contrary to the views of Bagehot, Schumpeter and Hicks, some scholars argue that financial system does not really matter in the growth of the economy. For instance, Nobel laureates

like Gerald Meier and Dudley Seers (1984) and Stern (1989) did not accord any role to finance (or financial system) in their discussion of development. Moreover, Stiglitz (1993) argued that stock market liquidity does not provide incentives for acquiring information concerning firms or improving corporate governance. Besides, Shliefer and Summers (1988) asserted that stock market development may hinder economic growth by promoting counter-productive corporate takeovers. Furthermore, Singh (1997) argued that stock market may not be important in attaining higher economic growth.

Given these conflicting views, it is left to empirical investigation to determine whether or not stock market (financial system) development accelerates economic growth, particularly in Nigeria. The remaining part of this paper is organized as follows. Section two consists of theoretical and empirical literature, while section three contains methodology and data analysis. Policy implication of findings and recommendations are taken up in section four. Section five summarizes and concludes the paper.

2. A Brief Introduction of the Nigerian Stock Exchange

Following the recommendations of the Barback committee in 1959, the Nigerian Stock Exchange (NSE) was established in 1961. The NSE provides an avenue for buying and selling shares, stocks, government development bonds and other approved securities, so that private sector (companies) and government can raise funds for the purpose of business expansion and development of projects (or programmes) that will increase the welfare of the society (Anyanwu et al, 1997). The main functions of the Nigerian Stock (Exchange) market include among others-providing opportunities for the offerings of shares and stocks to the public; assisting both public and private sectors of the economy to raise capital for expansion of businesses and development projects; encouraging and promoting the buying and selling of shares and stocks and other securities, so as to ensure adequate liquidity within the stock exchange; promoting the indigenization decree by encouraging Nigerians to buy into the shares of foreign companies; encouraging the saving and investment behaviour of Nigerians; making the Nigerian stock market attractive to foreign investors; and protecting shareholders and other participants from sharp practices that may arise during transactions on the stock exchange.

The Nigerian stock market consists of the primary market, secondary market, and the second-tier security market. The primary market is where new shares or securities are offered. The market also provides machinery for quoted or listed companies to raise more (or fresh) funds via issuing of new shares. In the secondary market, only existing securities are traded. The market facilitates the transfer of wealth from one individual to another, and guarantees liquidity within the stock (exchange) market. The second-tier security market was created in 1985 to assist indigenous small and medium-scale enterprises that can not access or raise capital from the first-tier security market due to its stringent requirements for listing.

Available statistics shows that prior to 2008-2009, the Nigerian stock market fared well, as market indicators (market capitalization, market turnover and the all-share index) grew from low to historically high levels. For instance, market capitalization increased from N0.014billion in 1970 to N4.5billion in 1980 and further to N16.36billion in 1990. Market capitalization was put at N466.17billion and N13,295billion in 2000 and 2007, respectively (see appendix 2). In the same manner, market turnover increased from 0.014Nbillion in 1970 to N0.52billion in 1980 but declined to N0.31billion in 1990. Market turnover resumed a rising trend, jumping to N28.15billion and N2,100billion in 2000 and 2007, respectively (see appendix 2). The all-share index also did well, increasing from 100 points in 1984 to 513.8 points in 1990 and further to 8,111.00 points in 2000. The all-share index reached its peak in 2007, standing at 57,990.2 points (see appendix 2).

Unfortunately, the boom experienced in the market has been reversed, as market indicators have declined very rapidly. For example, market capitalization now stands at approximately at N5,000billion, while the all-share index is put at approximately 25,000 points (NSE, 2008).

3. Theoretical and Empirical Literature

In this section an attempt is made to review both theoretical and empirical literature on stock market development and economic growth. Earlier, scholars such as Schumpeter (1912), Goldsmith (1969), Shaw (1973) and McKinnon (1973), emphasized the importance of the financial system in economic growth. Hicks (1969) argued that the industrialization process in England was promoted by the development of the financial sector which increased the access of the government and people to funds that were used to finance capital projects which led to the development of the economy. Levine (1991) argued that developed stock market reduces both liquidity shock and productivity shock of businesses. This in turn increases the access of businessmen to investment funds as well as enhancing the production capacity of the economy, thereby leading to higher economic growth. This view was supported by King and Levine (1993) that financial development fosters economic growth. Moreover, Bensivenga et al (1995) concluded that well developed financial market (stock market) induces long run economic growth. Pedro S. Amaral and Erwan Quintin (2007) asserted that financial market development raises output by increasing the capital used in production and by ensuring that capital is put into best uses. Ogwumike and Omole (1996), Ojo (1998), Abdullahi (2005) and Adam and Sanni (2005) also stressed the importance of capital market in economic development in Nigeria. Agarwal (2001) argued that financial sector development facilitates capital market development, and in turn raises real growth of the economy. Thornton (1995), Rousseau and Sylla (2001), and Calderon and Liu (2002) supported the claim that financial system development promotes economic growth. In the same vein, Beckaert et al (2005) demonstrated that capital market development increases economic growth. Similarly, Bolbo et al (2005) indicated that capital market development has contributed to the economic growth of Egypt. Aysan (2006) argued that lack of well developed financial markets and high degree of capital market imperfections increase growth volatility. Tharavanji (2007) observed that countries with deeper capital market face less severe business cycle output contraction and lower chances of an economic downturn compared to those with less developed capital market. On their part, Ben Naceur and Ghazouani (2007) reported that financial system development could have adverse effect on economic growth in a sample of 11 countries they studied, and therefore advocated for a vibrant financial sector.

The World Bank (1995) opined that stock market development does not merely follow economic development, but provides the means to predict future rates of growth in capital, productivity and per capita GDP. The conclusion of the Bank is that increases in banking and stock market development lead to increases in real per capita growth. Levine and Zervos (1998) observed a significant positive effect of stock market development on economic growth. Hamid Mohtadi and Sumit Agarwal (1998) examined the relationship between stock market development and economic growth for 21 emerging markets over 21 years, using a dynamic panel method. Their results indicate a positive relationship between several indicators of the stock market performance and economic growth both directly and indirectly by boosting private investment behaviour. In Belgium, Nieuwerburgh et al (2006) investigated the long-term relationship between financial market development and economic development. The authors used a new data set of stock market development indicators to argue that financial market development substantially affects economic growth. They found strong evidence that stock market development leads to economic growth in Belgium, especially in the period between 1873 and 1935. In Nepal, Surya Bahadur and Suman Neupane (2006) confirmed that the Nepalese stock market plays a significant role in determining economic growth. Chee Keong Choong et al (2003) 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 Muhammed Shahbaz et al (2008) suggested that there is a long run relationship between stock market development and economic growth for Pakistan. Stock market development was found to be an important factor that enhances economic growth.

Moreover, the authors discovered a feedback relationship between stock market development and economic growth in the long run. However, in the short run, the causality runs only from stock market development to economic growth. Minier (2003) showed that developed stock market has a positive influence on economic growth, while underdeveloped stock market has a negative effect on economic growth. Liu and Hsu (2006) reported a positive impact on growth of stock market development in Taiwan, Korea and Japan. The work of Francis Xavier et al (2007) showed that shareholder protection causes stock market development and eventually economic growth.

In Nigeria, some authors have also attempted to examine the relationship between stock market development and economic growth. For instance, Adam and Sanni (2005) examined the role of stock market in 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 growth turnover ratio. The authors advised that government should encourage the development of the capital market since it has a positive relationship with economic growth. Obamiro (2005) investigated the role of the Nigerian stock market in the light of economic growth. The author reported that a significant positive effect of stock market on economic growth. He suggested that government should create more enabling environment so as to increase the efficiency of the stock market, and to attain higher economic growth. Osinubi and Amaghionyeodiwe (2003) also examined the relationship between the Nigerian stock market and economic growth during the period 1980-2000. Unfortunately, their results did not support the claim that stock market development promotes economic growth. Earlier, Nyong (1997) analyzed the relationship between capital market development and economic growth. The author used various indicators of stock market development (like market capitalization-GDP ratio, total value of transaction-GDP ratio, value of transaction-GDP and listings) to capture capital market development. He also included the degree of financial market depth in the growth model. The results revealed a negative effect on economic growth of capital market development. Ezeoha et al (2009) investigated the nature of the relationship that exists between stock market development and the level of investment (domestic private investment and foreign private investment) flows in Nigeria. The authors discovered that stock market development promotes domestic private investment flows, thus suggesting the enhancement of the economy's production capacity as well as promotion of the growth of national output. However, the results show that stock development has not been able to encourage the flow of foreign private investment in Nigeria. For other studies that confirmed the positive effect of stock market development on growth see, Atje and Jovanovic (1993), Demirguc-Kunt (1994), Khan and Senhadji (2000), Arestis et al (2000), Mauro (2000), Rousseau and Wachtel (2000), Adjasi and Biekpe (2005), and Siliverstovs and Doung (2006).

Some authors focus on the causal relationship between stock market development and economic growth. For example, Gursoy and Muslumov (1998) confirmed the existence of a bi-directional causal relationship between stock market development and economic growth. Their study also revealed a stronger association between stock market development and economic growth in developing countries. Following Gursoy and Muslumov, authors like Luintel and Khan (1999) and Hondroyiannis et al (2005) reported a bi-directional between stock market development and economic growth.

Other researchers investigate the correlation between stock market development and economic growth. For instance, Ted Arzarmi et al (2005) examined the empirical association between stock market development and economic growth in India. The authors found no evidence of association between the Indian stock market development and economic growth in the entire period they studied. Whereas the authors found support for the relevance of stock market development in economic development during pre-liberalization, they discovered a negative relationship between stock market development and economic development for the post liberalization period. Laura Obreja Brasoveanu et al (2008) examined the correlation between

capital market development and economic growth in Romania using a regression function and VAR. It was shown that capital market is positively correlated with economic growth, with feedback effect. Moreover, they revealed that the strongest link is from economic growth to capital market. Scholars such as Calin and Mayer (2003), Garretsen et al (2004), Bose (2005), and Beck et al (2006) also indicated the existence of correlation between capital development and economic growth.

This study is very important because the Nigerian stock market which witnessed a boom in the last few years is now experiencing a meltdown, as market capitalization has declined from over N13 trillion in 2007 to N5 trillion in 2009. The all-share index has also fallen from 57,990.22 points to approximately 25,000 points in the same period. Moreover, the confidence of shareholders and investors seems to be eroding. Thus, it is expected that this study would complement the efforts of government and policy makers in reviving the Nigerian stock market and restoring the confidence of shareholders and other participants in the market. In addition, is the belief that a vibrant and well developed stock market would attract foreign investors and enhance the attainment of higher economic growth. Besides, recent empirical work in Nigeria, by Adam and Sanni (2005) and Obamiro (2005) employed the ordinary least squares to analyze the relationship between economic development and stock market development. This paper employs a more robust and superior approach (the error-correction method) to examine economic growth-stock market development relationship, and includes the all-share index as an important indicator and explanatory variable in the growth model. Furthermore, unlike Adam and Sanni (2005) and Obamiro (2005), the control variables used in this study are openness and discount rate.

4. Methodology and Data Analysis

This study uses the error-correction method to analyze the quantitative effects of stock market development on economic growth. This paper adopts the model of Chee Keong Choong et al (2003) with slight modifications. In their model, the authors expressed economic growth as a function of stock market development (measured by the size of and liquidity of level of the stock market). They also included two control variables namely openness (captured by total imports and exports to nominal GDP ratio) and discount rate. The authors argued that government intervention (through the use of discount rate) affects the relationship between financial development and economic development. Moreover, the central bank can adjust the liquidity level in the equity market and influence the ability of banking institutions in the supply of funds. It is believed that openness of the economy helps to attract foreign investment. This in turn increases the activities on the stock market as firms would attempt to raise investment funds (capital) from the stock market. The only addition to the original model is the inclusion of the all-share index. Thus, our econometric model is specified as:

$$
\begin{aligned}
\ln\left(GDP\right) \;=\; & \alpha_0 + \alpha_1 \ln\left(CAPGDP\right) + \alpha_2 \ln\left(TNOVGDP\right) + \alpha_3 \ln\left(ALLSHARE\right) + \\
& \alpha_4 \ln\left(OPENGDP\right) + \alpha_5 \ln\left(DRR\right) + U
\end{aligned} \tag{4.1}
$$

Aprior expectation requires that α_1, α_2, α_3 and $\alpha_4 > 0$, while $\alpha_5 < 0$. The variables in the model above are defined has follows: GDP refers to economic growth, and it is measured as the logarithm of the real GDP. The variable was used by Arestis et al (2001) in their empirical work. CAPGDP refers to market capitalization. It is obtained by dividing the total market capitalization by GDP. TNOVGDP refers to market turnover. It is derived by dividing the market turnover by GDP. OPENGDP refers to openness of the economy. It is measured as total imports and exports divided by GDP. DRR refers to the minimum rediscount rate. Chee Keong Choong et al (2003) considered market capitalization, market turnover, openness and the discount rate as important determinants (of economic growth) in their study. ALLSHARE refers to the all-share index of the Nigerian stock market. Finally, U refers to the error or disturbance term. In addition to the GDP, all the variables are expressed in their natural

logarithm form (Ln). This study covers the period 1981-2007. The period is chosen because the information on the all-share index (an important variable considered in our analysis) is only available from 1984. The E-view 4 software was used to analyze the data.

Before we estimate the relationship between economic growth and stock market development (including the control variables), there was need to perform a causality test. This is to ascertain whether a uni-directional or bi-directional (feedback) relationship exists between economic growth and stock market development. To achieve this purpose, the author employed the granger-causality statistic. Two lags of the variables were considered in the causality test. The result of the causality test is presented below:

Table I. The results of the Granger-causality test

Null hypothesis	Estimates	Causal inference
LnALLSHARE does not Granger Cause LnGDP	F= 1.63497 (0.22590)	No causality
LnGDP does not Granger Cause LnALLSHARE	F= 0.12953 (0.87942)	No causality
LnCAPGDP does not Granger Cause LnGDP	F= 0.60583 (0.55767)	No causality
LnGDP does not Granger Cause LnCAPGDP	F= 0.34284 (0.71484)	No causality
LnTNOVGDP does not Granger Cause LnGDP	F= 1.30026 (0.29975)	No causality
LnGDP does not Granger Cause LnTNOVGDP	F= 3.45414 (0.05663)	Causality
LnOPENGDP does not Granger Cause LnGDP	F= 1.72863 (0.20908)	No causality
LnGDP does not Granger Cause LnOPENGDP	F= 1.66526 (0.22030)	No causality
LnDRR does not Granger Cause LnGDP	F= 0.86172 (0.44114)	No causality
LnGDP does not Granger Cause LnDRR	F= 2.80144 (0.09055)	Causality

Note: The decision rule of the causality test states that if the probability value of the estimate is higher than the 5 percent (or 0.05) level of significance, we accept the null hypothesis, and vice versa.

The next step is to conduct the stationarity (unit root) test on the variables. This is achieved by employing the Augmented Dicker-Fuller (ADF) statistic. The result of the stationarity test is shown in the table below:

Table II. The results of the stationarity (unit root) test

Variables	ADF-statistic	Critical values	Order of integration
LnGDP	-4.472136 (0.0001)	1%=-2.679735; 5%=-1.958088; 10%=-1.607830	Stationary at first difference
LnALLSHARE	-4.796003 (0.0001)	1%=-2.692358; 5%=-1.960171; 10%=-1.607051	Stationary at second difference
LnCAPGDP	-5.528914 (0.0000)	1%=-2.685718; 5%=-1.959071; 10%=-1.607456	Stationary at second difference
LnTNOVGDP	-8.375785 (0.0000)	1%=-2.692358; 5%=-1.960171; 10%=-1.607051	Stationary at second difference
LnOPENGDP	-4.358632 (0.0002)	1%=-2.679735; 5%=-1.958088; 10%=-1.607830	Stationary at first difference
LnDRR	-4.553086 (0.0001)	1%=-2.685718; 5%=-1.959071; 10%=-1.607456	Stationary at first difference

The results of the unit root test indicate that three variables- LnGDP, LnOPENGDP and LnDRR are stationary at first difference, while LnALLSHARE, LnCAPGDP and LnTNOVGDP are stationary at second difference.

Finally we estimate the relationship between the economic growth and its potential determinants. The result of the estimation is presented in the table below:

Table III. The results of the estimation

Dependent Variable: LnGDP				
Method: Least Squares				
Date: 11/11/09 Time: 12:45				
Sample(adjusted): 1985 2006				
Included observations: 22 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.384129	1.039652	7.102498	0.0000
LnALLSHARE(-1)	0.255780	0.154356	1.657077	0.1183
LnCAPGDP	0.652445	0.247560	2.635502	0.0187
LnTNOVGDP	-0.260294	0.082670	-3.148596	0.0066
LnOPENGDP	-0.403458	0.153696	-2.625034	0.0191
LnDRR	0.784264	0.259471	3.022552	0.0086
ECM(-1)	0.906009	0.205864	4.401005	0.0005
R-squared	0.920808	Mean dependent var		11.63636
Adjusted R-squared	0.889131	S.D. dependent var		0.492366
S.E. of regression	0.163943	Akaike info criterion		-0.525225
Sum squared resid	0.403159	Schwarz criterion		-0.178075
Log likelihood	12.77748	F-statistic		29.06884
Durbin-Watson stat	1.977183	Prob(F-statistic)		0.000000

The results of the estimation show that the explanatory variables account for approximately 92.08 percent variation in economic growth. The F-Statistic (29.07) indicates that the explanatory variables are jointly significant and are capable of explaining changes in economic growth. The Durbin Watson statistic (1.98) illustrates the absence of auto (serial) correlation. The econometric results also reveal that the all-share index has an insignificant positive effect on economic growth at 5 percent level of significance. Another discovery from the estimation is that market capitalization-GDP ratio has a significant positive influence on economic growth at 5 percent level of significance. A 1 percentage increase in the market capitalization-GDP ratio raises economic growth by approximately 0.65 percentage. However, market turnover-GDP ratio has a significant negative impact on economic growth at 5 percent level of significance. A 1 percentage increase in the turnover-GDP ratio reduces economic growth by approximately 0.26 percentage. The regression results also reveal that openness-GDP ratio has a significant negative impact on economic growth at 5 percent level of significance. A 1 percentage increase in openness-GDP ratio leads to 0.40 percentage reduction in economic growth. Moreover, the estimation shows that discount rate has a significant positive effect on economic growth at 5 percent level of significance. A 1 percentage increase in the discount rate leads to approximately 0.78 percentage increase in economic growth. Our finding that the stock market development (measured by market capitalization-GDP ratio) raises economic growth is consistent with Abdullahi (2005), Adam and Sanni (2005), Obamiro (2005) in Nigeria. It also in line with Levine and Zervos (1998), Hamid Mohtadi and Sumit Agarwal (1998), Minier (2003), Chee Keong Choong et al (2003), Nieuwerburgh et al (2006), Liu Hsu (2006), Surya Bahadur and Suman Neupane (2006), and Muhammed Shahbaz et al (2008), who reported that stock market development facilitates economic growth.

The partial adjustment parameter has been shown to have a positive sign and significant, thus indicating the divergence between the actual and desired level of growth within a particular period. Lastly, it is shown that the variables are co-integrated and a long run equilibrium or relationship exists between the variables.

5. Policy Implication of Findings and Recommendations

Given the empirical results reported above, many policy implications can be drawn. Firstly, since stock market development (captured by market capitalization-GDP ratio) has statistical positive influence on economic growth, it implies that higher stock market capitalization increases the ability of firms to raise capital. Thus, they (firms) will be able increase investment spending and expand production of goods and services which translate to higher growth rate overtime. Secondly, the negative effect of openness on economic growth may be attributed to the fact that Nigeria is yet to put appropriate and effective policies in place in order to reap the benefits of international trade as well attract foreign investment. It is believed that openness facilitates not only the inflow of foreign investment but also enhance the production capacity of firms that do business in the country as well as increase their access to capital on the stock market. This in turn increases output of goods and services, and raise economic growth. Moreover, given that rising discount rate is shown to have positive impact on economic growth, raising the productivity and efficiency of firms would increase their rate of returns. If the rate of returns of firms is higher than the rate at which they borrow (discount rate) from the banks, it would induce them to increase production and accelerate economic growth. Furthermore, the negative impact of market turnover-GDP ratio (a measure of market liquidity) on economic growth may be due to the difficulties involved in trading shares such as high transaction costs, delay in the issuance of shares certificate to mention just few. These sometimes contribute to production and liquidity shocks, as well as contraction of output and increase in economic downturn.

In order to develop the Nigerian stock market, we recommend that government should remove impediments to stock market development in the form of tax, legal and regulatory barriers because they are sometimes disincentives to investment. Secondly, the Nigerian security and exchange commission (SEC) should improve the trading system in order to increase the ease with which investors can purchase and sell shares, thus guaranteeing liquidity on the stock market. Thirdly, government should invest more and develop the nation's infrastructure (such as roads, power, telecommunications, etc.) in order to create an enabling environment for businesses to grow, increase the productivity and efficiency, and the rate of returns of firms. Fourthly, government should employ appropriate trade policies that promote the inflow of international capital and foreign investment, so as to enhance the production capacity of the nation. Moreover, government should strengthen the capacity of the Nigerian security and exchange commission so as to check and prevent sharp practices by market operators (particularly speculators) in order to safeguard the interest of shareholders. Recent experience has shown that the confidence of many shareholders is waning due to the declining fortune of the stock market and many are reluctant to invest in shares and other securities. Besides, it has been argued by some analysts that most activities on the stock market are manipulated by some operators (speculators). This tends to undermine the growth potential of the stock market with its negative consequences on the economy. To this end, government should take a bold step in arresting the meltdown and restoring the confidence of operators and shareholders, and the possibility of a bail-out of the stock market should not be ruled out.

6. Summary and Conclusion

An attempt has been made to examine the relationship between stock market development and economic growth in Nigeria, by employing the error-correction method. It was shown that stock market development (market capitalization) contributes positively to economic growth. The recommendations therein include among others- removal of impediments to stock market development in the form of tax, legal and regulatory barriers; improvement of the trading system in order to increase the ease with which investors can purchase and sell shares; development of the nation's infrastructure so as to encourage firms to grow and increase the ease with which they raise capital or funds on the stock market; and strengthening the capacity of the Nigeria's security and exchange commission to check the activities of stock market speculators.

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APPENDIX

Table IV. Transactions on the Nigerian stock exchange market

Year	No of government bonds	Value of government deals (Nm)	No of industrial loans	Value of industrial loans (Nm)	No of equities	Value of equities (Nm)	No of deals	Value (Nm)
1970	303.0	16.4	331.0	0.2	-	-	634	16.6
1971	204.0	32.7	748.0	3.5	-	-	952	36.2
1972	258.0	26.2	640.0	1.0	-	-	898	27.2
1973	285.0	91.9	537.0	0.5	-	-	822	92.4
1974	256.0	49.4	2,807.0	1.3	-	-	3,063	50.7
1975	203.0	62.8	501.0	0.9	-	-	704	63.7
1976	321.0	111.3	696.0	0.6	-	-	1,017	111.9
1977	337.0	178.8	1,314.0	1.2	-	-	1,651	180.0
1978	243.0	187.2	2,230.0	2.5	-	-	2,473	189.7
1979	124.0	249.7	3,099.0	4.7	-	-	3,223	254.4
1980	220.0	380.8	6,918.0	7.9	-	-	7,138	388.7
1981	118.0	298.7	10,081.0	6.1	-	-	10,199	304.8
1982	184.0	207.0	9,830.0	8.0	-	-	10,014	215.0
1983	292.0	384.4	11,633.0	13.1	-	-	11,925	397.9
1984	194.0	240.9	17,250.0	15.6	-	-	17,444	256.5
1985	340.0	295.3	23,231.0	21.3	-	-	23,571	316.6
1986	270.0	477.6	27,448.0	20.3	-	-	27,718	497.9
1987	294.0	340.0	42.0	42.4	20,189.0	-	20,525	382.4
1988	100.0	215.8	-	9.7	21,460.0	624.8	21,560	850.3
1989	171.0	582.4	-	0.0	33,273.0	27.9	33,444	610.3
1990	118.0	124.3	49.0	34.2	39,103.0	66.9	39,270	225.4
1991	45.0	92.7	9.0	6.0	41,716.0	143.4	41,770	242.1
1992	71.0	85.0	14.0	6.7	48,944.0	400.0	49,029	491.7
1993	39.0	84.7	28.0	263.5	40,331.0	456.2	40,398	804.4
1994	16.0	15.2	48.0	177.1	42,010.0	793.6	42,074	985.9
1995	0.0	0.0	15.0	50.8	49,549.0	1,788.0	49,564	1,838.8
1996	11.0	12.0	15.0	50.8	49,515.0	6,916.8	49,515	6,979.6
1997	6.0	72.6	5.0	35.3	78,089.0	10,222.6	78,089	10,330.5
1998	1.0	15.6	3.0	0.2	84,935.0	13,555.3	84,935	13,571.1
1999	4.0	0.8	0.0	0.0	123,509.0	14,071.2	1.23×10^5	14,072.0
2000	8.0	8.1	0.0	0.0	256,523.0	28,145.0	2.56×10^5	28,153.1
2001	14.0	35.6	0.0	0.0	426,163.0	57,648.2	4.26×10^5	57,683.8
2002	3.0	2.3	0.0	0.3	451,850.0	59,404.1	4.51×10^5	59,406.7
2003	1.0	3.0	19.0	6,517.1	621,717.0	113,882.5	6.21×10^5	120,402.6
2004	3.0	317.5	13.0	1,730.0	973,526.0	223,772.5	9.73×10^5	225,820.0
2005	4.4	7,319.9	19.2	932.8	1.02×10^6	254,683.1	1.02×10^6	262,935.8
2006	383.4	2.2×10^6	1.0	4.5×10^5	4.02×10^6	4.51×10^8	4.02×10^6	454.26×10^6
2007	0.0	0.0	37.0	1,136.5	2.61×10^6	1.07×10^6	2.61×10^6	1.07×10^6

Source: Central Bank of Nigeria (2006, 2007).

Table V. Nigerian Stock market indicators

Year	Market capital-ization (Nb)	Market Turnover (Nb)	Discount rate (%)	All-share index 1984	GDP (Nm)	Imports (Nm)	Exports (Nm)
1970	0.014	0.014	4.5	N.A	54,200	756.4	885.4
1971	0.11	0.018	4.5	N.A	65,700	1,078.90	1,293.40
1972	0.17	0.028	4.5	N.A	69,300	990.1	1,434.20
1973	0.19	0.046	4.5	N.A	73,800	1,224.80	2,278.40
1974	0.27	0.057	4.5	N.A	82,400	1,737.30	5,794.80
1975	0.31	0.06	4.5	N.A	80,000	3,721.50	4,925.50
1976	0.46	0.08	3.5	N.A	88,900	5,148.50	6,751.10
1977	0.62	0.16	4	N.A	96,100	7,093.70	7,630.70
1978	1.07	0.23	5	N.A	89,000	8,211.70	6,064.40
1979	2.63	0.15	5	N.A	91,200	7,242.50	10,836.80
1980	4.5	0.52	6	N.A	96,200	8,868.20	14,186.70
1981	5	0.33	6	N.A	70,400	12,719.80	11,023.30
1982	4.03	0.22	8	N.A	70,200	10,545.00	8,206.40
1983	5.3	0.4	8	N.A	66,400	8,732.10	7,502.50
1984	5.51	0.25	10	100.00	63,000	6,895.90	9,088.00
1985	6.67	0.31	10	127.30	68,900	7,010.80	11,720.80
1986	6.79	0.49	10	163.80	71,100	5,069.70	8,920.60
1987	8.3	0.29	12.75	190.00	70,700	14,691.60	30,360.60
1988	10.02	0.25	12.75	233.60	77,800	17,642.60	31,192.80
1989	12.85	0.65	18.5	325.30	83,500	26,188.60	57,971.20
1990	16.36	0.31	18.5	513.80	90,300	39,644.80	109,886.10
1991	23.13	0.23	14.5	783.00	96,600	81,716.00	121,535.40
1992	31.27	0.49	17.5	1,107.60	97,000	123,589.70	205,611.70
1993	47.44	0.66	26	1,543.80	100,000	124,493.30	218,770.10
1994	63.37	0.9	13.5	2,205.00	101,300	120,439.20	206,059.20
1995	180.31	1.84	13.5	5,092.00	103,500	599,301.80	950,661.40
1996	285.82	7.06	13.5	6,992.10	107,000	400,447.90	1,309,543.40
1997	281.96	11.07	13.5	6,440.50	110,400	678,814.10	1,241,662.70
1998	262.5	13.5	14.31	5,672.70	113,000	661,564.50	751,856.70
1999	294.1	14.1	18	5,266.40	117,000	650,853.90	1,188,969.80
2000	466.17	28.15	13.5	8,111.00	121,000	764,204.70	1,945,723.30
2001	648.52	57.68	14.31	10,965.00	126,000	1,121,073.50	1,867,953.90
2002	747.6	59.41	19	12,137.70	131,000	1,150,985.30	1,744,177.70
2003	1,324.80	120.4	15.75	21,222.60	136,000	1,681,313.00	3,087,886.40
2004	2,112	225.8	15	23,844.45	145,400	1,668,930.00	4,602,781.50
2005	2,900	262.94	13	24,085.76	156,970	2,296,567.70	6,372,052.40
2006	5,120	470.25	10	33,189.30	169,304	2,306,999.60	5,752,747.70
2007	13,295	2,100	8.75	57,990.22	N.A	5,289,824.40	8,126,000.50

Source: (i) Adam and Sanni (2005); (ii) Nigerian stock exchange factbook (various issues);
(iii) Central Bank of Nigeria (various issues).