NIGERIAN JOURNAL OF COOPERATIVE ECONOMICS AND MANAGEMENT

VOL.1. NO.1 DECEMBER, 2007

ISSN 079-943X

PUBLISHED BY

THE DEPARTMENT OF COOPERATIVE ECONOMICS AND MANAGEMENT
FACULTY OF MANAGEMENT SCIENCES
NNAMDI AZIKIWE UNIVERSITY, AWKA,
ANAMBRA STATE.
Cemjournal@yahoo.com

OYERINDE, DORCAS T.

NIGERIAN JOURNAL OF COOPERATIVE ECONOMICS AND MANAGEMENT (NJCEM)

VOL.1. NO.1 DECEMBER, 2007 ISSN 079-943X

PUBLISHED BY
**THE DEPARTMENT OF COOPERATIVE ECONOMICS AND MANAGEMENT
FACULTY OF MANAGEMENT SCIENCES
NNAMDI AZIKIWE UNIVERSITY, AWKA,
ANAMBRA STATE.**
cemjournal@yahoo.com

Published Dec; 2007.

ISSN: 079-943x

Published by:
Department of Cooperative Economics and Management Faculty of Management Sciences, Nnamdi Azikiwe University, Awka, Anambra State.

Printed by

Rex Charles & Patrick Ltd. Nimo. 08023182425, 08080608127

IN THIS ISSUE

Stock Market, Financial Reforms and Economic Growth in Nigeria: An Empirical Analysis

D. T. Oyerinde [1]
A. O. Umoren [2]

Abstract

The paper investigates the relationship between stock market and economic growth. It also examines the contribution of the Nigerian Stock market to the real activity before and after the introduction of financial reforms. This paper empirically shows the link between stock market and economic growth. The study covers a period of 32years (1970-2001) using two different regressions. The first regression covers the period 1970-1985: a period before Structural Adjustment Progrmme (SAP), and the second regression covers the period 1986-2001: a period after SAP. The SAP period corresponds with the period when the deregulation of the financial market was in vogue in the Nigerian economy. Ordinary Least Squares Estimation technique is used in analyzing the data. In our study we observe that stock market development significantly correlates with real gross domestic product. This finding suggests that, policy measures that improve efficiency of the Nigerian stock market would promote economic growth.

Introduction

Stock market is an important institution that contributes to economic growth of emerging economies. Recent evidence shows that stock markets have positive impact on economic growth (Charles,2008). Economic growth in turn causes an improvement in the economic welfare of the people and accomplishes the distribution of the national product in favour of the poor. This explains why many governments across the world are taking bold steps to develop their capital markets.

The stock market is an essential part of an efficient financial system. The market plays a key role in the development of a nation (Okereke, 2004:1). Many governments across the world have come to acknowledge the important role of capital markets in the growth and development of their economies; as a result they undertake bold steps to develop the market. This is so since capital market is a fundamental economic sector which must not be neglected or toyed with due to the various attendant benefits. For instance, through its functions, the capital market enables both the government and industries to raise long-term capital for the financing of new projects, expansion and modernization of industrial concerns. The private sector tends to dominate the market in some sense. It is really expected that the Organized Private Sector (OPS) should be better in bringing about robust economic growth and development where active capital market exists especially in channeling funds that bring about efficient allocation of resources.

The total value of stocks listed in all of the world's stock markets has increased stupendously from $4.7 trillion in 1985 to $15.2 trillion in 1995, while the share of total world capitalization represented by the emerging markets jumped from less than 4 percent to almost 13 percent during the same period (Levine,1996:1). Akin to this global trend, the Nigerian stock exchange has grown greatly with time. According to Babatunde

[1] Department of Accounting and Taxation, College of Business and Social Sciences, Covenant University, Ota, Ogun State.
[2] Department of Accounting and Taxation, College of Business and Social Sciences, Covenant University, Ota, Ogun State.

and Mokuolu (2005:56), this fact is emphasized by the exceptional growth of market capitalization and value of shares traded on the exchange by 11150.37% and 12068.65% respectively between 1986 and 2002. The main reason for this phenomenal growth is that both developed and developing economies are promoting capital markets with the expectation that these efforts will engender faster economic growth.

The link between capital market performance and economic growth has often generated strong controversy among researchers (Babatunde and Mokuolu, 2005:56). Some proponents assert that the capital market contributes to economic growth(Owolabi,2007; while critics argue that capital market is an insignificant source of economic growth. Pearce(1983) argues that the stock market has previously given "false signals" about the economy, and therefore, should not be relied on as an economic pointer.

The study intends to provide empirical evidence regarding the relationship between capital market and economic growth in Nigeria to validate or invalidate previous studies. In particular, the paper will attempt to measure the impact of financial reforms on the Nigerian economy via the capital market between 1970 -1985 pre SAP era and 1986 – 2003 post SAP era. The rest of the paper is divided into five sections. Section two briefly reviews relevant and related literature on Nigerian capital market and economic growth, while section three addresses the research methodology employed. Section four presents the data analyses, results and discussion; while the last part is the summary of research findings and the concluding part of the paper.

REVIEW OF RELATED LITERATURE

Nigerian Capital Market

The financial market composes of the money and capital markets. The money market is where short term money is sourced, while the capital market is the forum for trading and sourcing medium and long term funds. The Nigerian capital market is an emerging capital market that has prospect of growth (Gbede, 2000:10). The capital market is divided into two broad sub-markets, viz: the stock market and the commodity market. The stock market is where shares, bonds, and derivatives are traded while the commodity market is where commodities such as cocoa, gold, and oil etc are traded. The Stock market is divided into two segments- primary and secondary markets. Nigerian Stock Exchange (NSE) is the very centre point of the Nigerian Capital Market; it is the pivot around which every activity of the capital market revolves. It gives both individual and Institutional participants the chance to trade or liquidate their investments.

The origin of the Nigerian Stock Market is dated back to 1960 when it was incorporated as Lagos Stock Exchange. It commenced operation in Lagos on 5th June 1961. Trading on the Lagos Stock Exchange during the early years was generally poor due to low rate of capital formation, poor communication and lack of responsiveness to the mechanics of stock exchange dealings. In 1977, the Lagos Stock Exchange was renamed and reconstituted into the Nigerian Stock Exchange (NSE).

At present, there are eight branches of the Stock Exchange with Lagos branch as its head office. Each branch has a trading floor, and some of the floors are computerized. Following the commencement of Lagos Stock Exchange, Kaduna was opened in 1978; Port Harcourt, 1980; Kano, 1989; Onitsha, 1990; Ibadan, 1990; Abuja, 1999; Yola, 2002; and Benin in 2005. The NSE commenced operation with only 19 securities worth

N80million in 1961, in March 2004, the number of listed securities had increased to 270 with a total market capitalization of N1.82 trillion (Elakama, 2004:16). The NSE is a medium of channeling of intermediate and long term funds to promote economic activities. It provides a mechanism for mobilizing private and public savings for productive purposes. The regulatory organ of the stock market in Nigeria is the Securities and Exchange Commission (SEC). It was originally named the Capital Issue Committee at inception in 1961 and later changed to Capital Issue Commission in 1973. SEC's function among others is to determine the amount of, and time at which securities of a company are to be sold to the public and to maintain surveillance over securities market to ensure orderly, fair and equitable dealing in securities.

Financing Instruments in the Nigerian Capital Market

The Nigerian capital market offers an array of financial instruments to meet long term financing needs of the public and private sectors. These instruments comprise equity, debts and financial derivatives. The equity market trades on ordinary and preference shares. It is the cheapest and most flexible source of finance. In Nigeria, the equity market is the largest; it has grown significantly in the recent times because of privatization, new issues of listed companies and price appreciation. As at December 2004, out of the 270 securities at the NSE, 201 were equities (Elakama, 2004:18).

The debt market trades on government bonds, industrial loans, debenture stocks and corporate bonds. Unlike the equity market, the patronage of the debt market has been quite low, principally because of uncomplimentary policy, environment and a preference of fund users for other forms of financing among other reasons (Okereke, 2001:5). As at December 2004, there were 13 Federal Government Development Stocks, 5 State Government Bonds, 49 Industrial Loans Stocks and 2 Preference Stocks (Elakama, 2004:18).

Financial derivative is a financial instrument which derives its value from the value of some other financial instrument or variable. Three broad types exist; they are option, future and swap. The derivative market is however new in Nigeria. Certain financial derivative products, like traded options, are standardized and issued by the Nigerian Stock Exchange to sophisticated investors. Others are traded over – the – counter (OTC), (Herbert, 2005 : 11).

Capital market and Economic Growth

Economic growth is the increase in the value of goods and services produced by the economy, generally referred to as Gross Domestic Product (GDP)(Okiti,2007: 56).

A virile capital market influences economic growth because of interrelationship between macro-economic stability and the soundness of the financial system. The stability of a nation's economy is measured by the condition of its stock market because:

i. It shows the state of health of the national economy.

ii. It provides a measure of the buoyancy of the economy by the extent to which economic activities rely on it.

The most important aspect of a capital market is in its provision of opportunity for trading on long-term debt and equities. Intermediation between the needs of firms and investors signifies the core function of capital markets, which by extension, enables the functioning of capital markets to facilitate:

- obtaining of information about the companies;
- corporate regulation; and
- investment risk diversification.

Atje and Jovanovic (1993) as cited in Babatunde and Mokuolu (2005:58), found significant correlations between economic growth and the value of stock market for 40 countries over the period 1980-1988. Stock market development is positively correlated with long run economic growth (Babatunde and Mokuolu, 2005:58). The stock market is the most credible source of medium and long term financing and a base for sustainable development. The roles of the stock market as summarized by Okeke, (2004:32) and Adedipe (2004:24) include the following:

i. Engagement and mobilization of domestic savings and investment in one central place and thereafter providing a very efficient distribution of these resources. They represent an alternative to bank deposits and real estate investments;
ii. Provision of efficient mechanisms for mobilizing medium and long- term funds for financing long term economic activities. To facilitate the setting up of Nigeria's domestic funds, foreign funds and venture capital funds;
iii. Facilitation of healthy and transparent channel for transfer of enterprises from the public sector to the private sector;
iv. Encouragement of marketability of new issues by providing access to finance new and smaller companies. These encourage institutional development in facilitating the setting up of Nigeria's domestic funds, foreign funds and venture capital funds;
v. Provision of better protection against inflation and currency depreciation for investors ;
vi. Promotion of growth of institutional investors and various forms of institutional savings such as pension funds and insurance;
vii. Facilitation of good corporate governance;
viii. Stimulation of industrial as well as economic growth and development of the Nigerian economy;
ix. Provision of market measure for returns on capital and a market mechanism for management changes as compared with the administrative or political mechanism of public sector corporations.

The role of an efficient market cannot be over-emphasized. According to Olawale (2004: 7), it creates an enabling environment for a faster, sustainable and socially equitable economic growth. Elakama (2004:14), claims that an efficient stock market mobilizes and allocates greater proportion to those companies with the highest prospective rates of returns after giving due allowance for risk. The allocating function is critical in determining the overall growth of the economy. It is also a conduit for channeling long term funds to productive sectors. Gbede(2000:9), narrated that an efficient stock market promotes the control of the economy by constituting itself into a stabilization agent of the government. It also performs the role of a protector to the investors. Ologunde et al (2006), examined the relationships between stock market capitalization rate and interest rate using regression. Results showed that the prevailing interest rate exerted positive influence on stock market capitalization rate.

Financial Reforms

Nigeria commenced economic reforms in 1985 known as Structural Adjustment Programme(SAP). SAP was intended to deal with the underlying imbalances in the economy and consequently pave way for stable growth and development (CBN, 1993). The development of an efficient financial sector was considered fundamental to SAP. Hence, it focused on market reforms which entailed a movement away from regulation and controls. This financial liberation policy has helped the growth of stock market. Balogun(2007:3), claimed that financial markets were considered very helpful to the success of the programme.

METHODOLOGY

Model Specification

This study adopts a Cobb-Douglas production function because it explains relationship better and specifies that the level of real gross domestic product, which is a measure of economic activity, is a function of real gross domestic investment as well as the activities in the capital market. This mathematical statement can be written explicitly as:

$$RGDP = f(RGI, SMC) \text{ ....(1)}$$

where

RGDP = real gross domestic product,
RGI = real gross domestic investment
f = functional relationship;
SMC = Stock market capitalization.

The functional form of equation (1) above is:

$$RGDP = A[RGI]^{\beta_1}[SMC^{\beta_2}]e \text{ ....(3)}$$

Where all variables are as previously defined and A is the efficiency parameter while e is the error term. Adopting a log-linear specification gives

$$Log(rgdp) = Log(A) + \beta_1 Log(RGI) + \beta_2 Log(SMC) + \log e \text{ ....(4)}$$

Given that L(A) = β_0, and loge = u, equation (4) becomes

$$Log(rgdp) = \beta_0 + \beta_1 \log(RGI) + \beta_2 \log(SMC) + u \text{ ....(5)}$$

For the purpose of this study, the model represented by equation (5) above will be estimated. Moreover, since RGI and SM are non-negative the expected signs of the coefficients of explanatory variables are:

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

Technique of Analysis

In an attempt to estimate the model above, the Ordinary Least Squares Estimation technique is used. Moreover, two different regressions are performed. The first regression covers the period 1970-1985: a period before SAP, and 1986-2001: a period after SAP. In running the regression, MICROFIT 4.1- an econometric software, is used.

Measurement of Variables and Sources of Data

In this study, the real gross domestic investment is measured as gross fixed capital formation deflated by the consumer price index (1984=100) while capital market activities are proxied by stock market capitalization. The real gross domestic product is measured as the nominal GDP deflated by the consumer price index (1984=100).

The main sources of data for this study are:

(i) Central Bank of Nigeria-Statistical Bulletin (2003);
(ii) IMF's International Financial Statistics, online;
(iii) The World Bank database as reported in Iyoha (2002).

These data can be found in appendix 1.

DATA ANALYSIS

Table 4.1 and 4.2 below reports the result obtained when equation 5 above was estimated. It could be observed that the parameters of the estimated regression conform to their a priori expectations. Moreover, the R-squared and adjusted R-squared using the sample period 1970-1985 and 1986-2003 are quite high. The R-squared (which is a coefficient of multiple determinations) is approximately in the neighborhood of 67-87% in both regressions. The adjusted R-Squared, which is the R-squared corrected for degree of freedom is also in the neighborhood of approximately 62-78%. This implies that both regressions have good fits and indicate that more than 60% variation in real gross domestic product is explained by real gross domestic investment and capital market activities.

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

Table 4.1 Ordinary Least Squares Estimation(1970-1985)

Dependent variable is LRGDP
16 observations used for estimation from 1970 to 1985

Regressor	Coefficient	Standard Error	T-Ratio[Prob]
C	7.6502	.82560	9.2663[.000]
GI	.33308	.073092	4.5569[.001]
LSMC	.071823	.032494	2.2103[.046]

R-Squared	.82909	R-Bar-Squared	.78248
S.E. of Regression	.12089	F-stat. F(3, 11)	17.7869[.000]
Mean of Dependent Variable	11.3479	S.D. of Dependent Variable	.29223
Residual Sum of Squares	.16075	Equation Log-likelihood	12.7354
Akaike Info. Criterion	8.7354	Schwarz Bayesian Criterion	7.1903
DW-statistic	1.8088		

Table 4.2 Ordinary Least Squares Estimation(1986-2003

****

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

****

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

****

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

****

Table 4.1 shows the regression result using 1970-1985 sample. It could be seen that there is a positive relationship between real gross domestic investment and the real GDP. This relationship is not only positive but also statistically significant at 5 per cent level. A positive and significant relationship also exists between capital market activities (proxied by stock market capitalization) and the real gross domestic product.

To examine the contribution of the Nigerian capital market to the real activity before the introduction of financial reforms, we examine the coefficient of SMC as well as the intercept of the regression. In Table 4.1, coefficient of SMC is approximately 0.071 and implies a =N=1m increase in stock market activity leads to =N=0.071m increase in real output measured by the real gross domestic product. The intercept of the regression using the 1970-85 series is also 7.65 which implies that the economy's productive efficiency remains at this level.

Table 4.2 also reports the regression results using the 1987-2003 sample. This period corresponds with the period when the deregulation of the financial market was in vogue in the Nigerian economy. This result also shows that there is a positive but insignificant relationship between real gross domestic product and real gross domestic investment. A positive and significant relationship also exists between stock market activities and the real gross domestic product in this period.

With respect to the contribution of the capital market to the real gross domestic product during the financial deregulation period, table 4.2 indicates that the coefficient of SMC in the regression equation for the sample period 1986-2003 is 0.0937. This means that a =N=1m increase in stock market activity led to =N=0.0937m increase in real output measured by the real gross domestic product. The efficiency parameter in this period increased by 6.82% relative to the period before the reforms and remained at 8.172.

The main inference that could be drawn from the above results is that capital market has become more vibrant since the introduction of reform measures in the economy.

Summary of findings

This study has revealed that stock market is crucial to the Nigerian economy. This market has been a source of finance for the industrial sector as well as the public sector. With the introduction of financial deregulation, this study investigated the impact of this reform on real activity in Nigeria. The study found that real activity measured by the real gross domestic product has increased tremendously with the introduction of the reform. This means that the market has become more vibrant since 1986. This finding, however, does not imply that the Nigerian capital market is without some challenges. Great efforts are still needed to improve upon the depth and breadth of the market.

Conclusion and Policy Measure Recommendations

The Nigerian stock exchange has contributed enormously to the growth and development of Nigeria. As an emerging market, the Nigerian capital market faces numerous challenges as enumerated in the literature review section. To overcome these challenges the policy makers must work out strategies to address the challenge. In this light, we hereby recommend the following policy measures to improve efficiency of the Nigerian stock market for accelerated economic growth:

i. The Nigerian Stock Exchange should open up for internationalization by offering securities, projects, marketplaces, investor safeguards that compete with those offered in the developed markets. This will enhance foreign investment inflow to Nigeria.

ii. Market participants and the regulatory agencies should work as one to protect the integrity of the market. All fraudulent practices should be exposed and dwelt with appropriately, thereby boosting market reputation and stimulating international acceptance. This will cause an increase in the number of foreign portfolio investors and prompt rapid growth of the market.

iii. Currently there is short supply of finance and support services for Nigerian small and medium sized enterprises (SMEs) and thus making them to suffer from low productivity and competitiveness. The Nigerian Capital Market should encourage more activities in the Second –tier Securities market by allowing SMEs to seek public quotations at minimal efforts. This will engender rapid economic growth and development.

iv. The participants of the Nigerian capital market should promote sound corporate governance standards in order to assure the investors of the safety of the system.

References

Adedipe, B.(2004),"Mainstreaming the Capital Market in National Policy Formulation" The Nigerian Stock Market Annual, pp.24.

Babatunde, O.O.and J.O. Mokuolu (2005), "Stock Market Development and Economic Growth in Nigeria: An Empirical Analysis", Nigerian Journal of Banking and Financial Issues, Vol. 6. pp.56-58.

Balogun, E. D.(2007), "A Review of Soludo's Perspective of Financial Sector Reforms in Nigeria", Being Paper Presented at First Annual Conference of Department of Finance, University of Lagos, April.

Central Bank of Nigeria, Lagos(1993), "Perspective Economic Policy Reforms in Nigeria".

Charles, U.(2008),"Strengthening the Landscape of Nigerian Capital Market Against

Financial Fraud", The Nigerian Stockbroker, Vol.9, No.1, p.1, January-March.

Central Bank of Nigeria (2003), Statistical Bulletin, Vol 14 , p. 249.

Ekelund, R.B. and R. D. Tollison (1994), Economics, HarperCollins :College Publisher, New York, pp. 788.

Elakama, L.M.(2004), " Overview of the Nigerian Stock Exchange: Operations and The Nigerian Financial System", The Nigerian Stockbroker, Vol 5, No 4. pp.14-18

Gbede, G.O.(2000), "Anatomy of a Capital Market", Products and Markets, Vol. 2 No.7. pp. 9-10.

Herbert W.E. (2005), "The Relevance of Financial Derivatives to Nigerian Capital Market" The Nigerian Stockbroker, Vol 6 No 1 , January – March, pp.11.

Iyoha, M.A.(2002), Macroeconomics: Theory and Policy, Mareh Publishers, Benin City, pp. 264.

Levine, R.(1996), " Stock Markets: A Spur to Economic Growth" Finance & Development, 33(1) March, pp. 1-10.

Olawale A. (2004), " NEEDS, NEPAD and the Capital Market" The Nigerian Stockbroker, Vol 5, No 1, pp.7.

Ologunde, A.O , D.O. Elumilade and T.O. Asaolu (2006), "Stock Market Capitalization and Interest Rate in Nigeria: A Time Series Analysis, International Research Journal of Finance and Economics, Issue 4

Oke, B. (2005), "Shareholder's List to Boost Capital Market", The Punch, July 11, pp.30.

Okeke F.(2004), Fiscal Sustainability And The Challenges of a Responsive Capital Market in Global Perspective, Nigerian Stock Market Annual, pp. 1.

Okereke N (2001), "Money and Capital Markets: Opportunities for Industrial Development", being a paper presented at the 1st Ondo State Economic Summit on Harnessing the Full Potentials of Ondo State for Economic Development, Akure, April, pp. 5.

Okereke N (2004), "Significance of Capital Market in Economic Development: The Global Trends", being a paper delivered at the NSE's 2004 Bi-annual Conference, Abuja , pp.30,31

Okiti, O.(2007), " Economic Growth or Economic Development?", Business Day, Vol. 6 No. 209, 18 October.

Pearce, D. K.(1983), "Stock Prices and the Economy." Federal Reserve Bank of Kansas City Economic Review, November 7-22, pp.2-5.

Appendix 1
Table 3.1 Data used for the regression

Year	RGDP	SMC	RGI
1970	48195.4	30.2	8175.9
1971	52565.6	40.7	10264.0
1972	55878.3	169.3	10860.5
1973	80814.0	194.8	19227.9
1974	118820.1	272.6	20564.9
1975	101241.5	313.9	26632.9
1976	104126.2	458.3	33503.9
1977	106487.6	618.5	33520.3
1978	100116.2	1071.5	28655.1
1979	108955.1	2631.6	24919.5
1980	117334.0	4464.2	27023.6
1981	98548.0	4970.8	22644.5
1982	93594.0	4025.7	17666.1
1983	83519.6	5268.0	11014.7
1984	66462.2	5514.9	4490.5
1985	71368.1	6670.7	5126.0
1986	68432.8	6794.8	7337.8
1987	92061.3	8297.6	8273.0
1988	78740.8	10020.7	5183.2
1989	81575.9	12848.8	6756.1
1990	87951.2	16348.4	10616.3
1991	96780.7	23124.9	10765.8
1992	113781.5	31270.0	12320.2
1993	91980.3	47440.0	10825.6
1994	77163.5	66370.0	7225.7
1995	96093.4	180310.0	5627.7
1996	102982.2	285820.0	6482.0
1997	99015.1	281960.0	7194.7
1998	87821.4	262520.0	6144.4
1999	96080.2	294105.0	5302.3
2000	134861.0	466058.7	5329.9
2001	128584.7	648449.5	9206.4
2002	113208.4	747599.8	8477.3
2003	146527.5	1324898.0	8795.6

Sources

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