Evaluation of Effect of Interest Rate on Capital Market Growth in Nigeria (1985-2009)

AJAGBE, F. A
Department of Entrepreneurial Studies
Federal University of Agriculture Abeokuta, P. M. B. 2240, Ogun State, Nigeria.

Abstract

The market is an economic institution which encourages efficiency in capital accumulation and allocation. It makes it possible for citizens to buy securities of companies, participate in the running of the private sector of the economy and without this market, the Indigenization Decree of Nigeria would not have had any effect. Specifically, this study examines the effect of interest rate on capital market growth in Nigeria over the last decades (1985 - 2009) using analytical statistical technique with Ordinary Least Square (OLS) method. The results established that consumer price index (4.551453) is positively significant with capital market which increases the growth of the economy. The R^2 (0.8268824) explains the goodness fit of model, the precision and reliability of the model. Interest rate reduces all share price index and globally, stock markets are regarded as financial institutions where funds can be raised in order to finance investments so as to achieve high economic growth and development. Based on this, it was recommended that, for capital market to take full advantage of the various opportunities and cope with challenges, interest rate must be properly put at check in order to enable capital market to function properly.

Keywords; Interest rate, capital market, economy growth, Ordinary Least Square (OLS) method, Nigeria

1. INTRODUCTION

The capital market is a market for long-term funds investments and it is reputed to play significant roles that promotes the growth and development of the economy. The market is an economic institution which encourages efficiency in capital accumulation and allocation. It makes it possible for citizens to buy securities of companies, participate in the running of the private sector of the economy and without this market, the Indigenization Decree of Nigeria would not have had any effect. The performance of capital market cannot be over-emphasized, in that it gives the government the opportunity to borrow long-term capital which it requires for development, the dealers in the market promote manpower development by training their staff in financial management. The stock exchange, which is the main institution of the market, helps to buy and sell securities. This way it reduces the problem of risk which accompanies investment. This eventually promotes the participation of the public in the market.

The introduction of Structural Adjustment Programme (SAP) in Nigeria, has assisted the country stock market to grow tremendously (Alile, 1996, Soyode, 1990). This is attributed to the deregulation of the financial sector and the privatization exercise, which has exposed investors and companies to the benefits of the stock market. The programme was proposed as an economic package to rapidly and effectively transformed the Nigerian economy within two years (Yesuf, 1996). The dealers in the Nigerian Stock Exchange include, Discount Houses, Development banks, investment banks, Building societies, stock Broking firms, insurance and pension organizations, quoted firms, the government and individuals. Hence, capital market played significant roles in national economic in that it mobilizes the saving of a country for development.

The relationship which exist between capital market and interest rate has become an issue of interest among the scholars based on their study of developed and emerging markets (Ologunde, et. al; 2006). Interest rate can be referred to as the reward for parting with liquidity for a specific period of time. It is also the rental payment for the use of credit by borrowers and return for parting with liquidity by lenders. Hence interest rate can be seen to having a negative effect between a sum of money and what can be obtained for parting with control over the money in exchange for a debt for a given period of time. In Nigeria, interest rate has been fluctuation over the period of time as a result of changing economic events such as government policies and reforms, crises in financial markets, inflation, and changes in anticipation for long-term economic growth (Maku and Atanda, 2009). If for instance, the interest rate paid by banks to their customers is increased investors will patronize the banks the more and investment on capital market will fall. This eventually reduced capital investment in the economy. Consequently, the economic growth and development will be reduced which shows the impact of interest rate on resource allocation, production, levels, prices and profitability. Based on the fact that, capital market is an engine that provides some services that promote economic growth, the current interest changes and the capital market sensitiveness has affected the performance of the economy. Hence the study tends to examine the impact of interest rate on capital market growth for 1985-2009 in Nigeria. Also, limit itself to macroeconomic variables such as, interest rate, inflation, stock exchange rate and its effect on capital market.

2. LITERATURE

Mckinnon-Shaw (1973) disagreed with the views of neo-classical momentary theories and the Keynes that high positive interest rate have a direct impact in saving and investment.

Agenor (2000) remarked that interest rate, high inflation, large fiscal deficit and real exchange rate are key symbol of macroeconomic instability which deprives private sector investment and savings and thereby causing inefficient allocation of resources which invariably affect its effective performance. Kaul (1990) argued that monetary authority will apply interest rate policy when is pursing counter or pro-cyclical policy in the economy.

Financial repression arises mostly when a country imposes ceiling in deposit and lending norminal interest at a low level relative to inflation. This effect is that low or negative interest rate discourages saving mobilization and channeling of the mobilized savings through the financial system. This eventually has a negative impact on the quantity and quality of investment and economic growth (Mckinon, 1973, Shaw, 1973).

Goswami and Jung (1997), in their research on Korean economy discovered that stock prices are negatively correlated to short-term interest rate. Chandra (2004), reported that a rise in interest rate reduce industries and companies profitability. Moreso, it increases the discount rate applied to equity investors; both of which have negative effect on stock prices, and vice-visa. This eventually revealed that a rise in interest rate is expected to affect the performance of an organization adversely.

3. MATERIALS AND METHODS

The data requirements for this study include secondary information on key Nigerian macro-economic variables such as: interest rate, consumer price index, net exchange rate and net domestic credit. This paper used time series data for a period from 1985 to 2009. The data were generated from the statistical Bulletin of Central Bank of Nigeria. For the analysis multivariate model couple with its simple version was employed and Ordinary Least Square (OLS) techniques was used in the single equation models.

The model for this study is specified as:

$$Y_t = C_0 + \beta_1 RM + \beta_2 CPI + \beta_3 NER + \beta_4 NDC + E_t$$

Where;

Y_t	=	All Shares Index (ASI)
C_0	=	Intercept
$\beta_1 - \beta_4$ =		Slopes of the parameters
RM	=	Lending Rate as a proxy to interest rate
CPI	=	Consumer Price Index
NER	=	Net Exchange Rate
NDC	=	Net Domestic Credit
Et	=	Error Term

4. RESULTS AND DISCUSSION

The results of regression analysis is shown in Table 1. The result revealed that interest rate has (-69.44) which is negatively significant with the capital market. This shows that an increase in the rate of interest leads to a decrease in capital market which invariably has adverse effect on the economy.

The consumer price index (4.55) is positively significant with capital market. This implies that 1percent increase in consumer price index will ensure a 4.55 percent increase in capital market, which consequently increase the growth of the economy. For the net exchange rate (-18.38), there is an inverse relationship with capital market. Meaning that, an increase in net exchange rate will reduce the capital market growth.

Net domestic credit has a negative impact on the Nigerian capital market growth. This revealed that as net domestic credit increases, the capital market growth is reducing. The interest rate, consumer price index, net exchange rate and net domestic credit are statistically significant at both 5 percent and 10 percent level of significant. The $R^2 = (0.83)$ explains the goodness fit of model, the precision and reliability of the model. The F – statistics and the probability of the F – statistics as well as the Durbin Watson statistics (0.295284) showed a statistically significant positive serial correlation.

5. CONCLUSION

It was concluded from the regression analysis that an increase in interest rate reduces all share price index and globally, stock markets are regarded as financial institutions where funds can be raised in order to finance investments so as to achieve high economic growth and development. Based on this, it was recommended that, for capital market to take full advantage of the various opportunities and cope with challenges, interest rate must be properly put at check in order to enable capital market to function properly. Also, the stability of macroeconomic should be ensured for appropriate monetary policies to function properly and for the country to derive maximum benefits from its capital market.

REFERENCES

Agenor, P.R. (2000); *The Economics of Adjustment and Growth,* Academic Press, New York, NY.

Alile, H. (1996); "Dismantling Barrier of Foreign Capital Inflows*" the Business Time of Nigeria* 14th April, page 5.

Chandra, P. (2004): Investment Analysis and Portfolio Management. New Delhii McGraw-Hill. Chen N 1991. *Financial Investment Opportunities and the Macroeconomy, J. of Finance,* (2004), 46(2); 529-554.

Gaswami G., Jung S.C. (1997); Stock Market and Economic Forces; Evidence from Korea. IMF Working Paper. From http://papers.ssrn.com /50/3/Devery. clm?abstradid=1937914

Kaul, G. (1990); "Monetary Regimes and the Relation Between Stocks Returns and Inflation Expectation" Journal of *Financial and Quantitative Analysis;* No 25, pp. 301-321.

Maku, E. O. and Atanda, A. A. (2009) Does Macroeconomic Indicators Exert Shock on the Nigerian Capital Market? Paper No. 17917, Munish Publication, University of Demark.

Mckinnon, R.I. (1973): Money and Capital in Economic *Development, Brookings Institutions, Washington, D.C.*

Ologunde, A.O. Elumilade, D.O., Aw Asaolu, T.O., (2006); Stock Market Capitalization and Interest Rate in Nigeria. A Time Series Analysis *International Revenue Journal of Finance and Economics Euro Journals Publishing,* Inc. 2006.

Soyode, A (1990): "The Role of Capital in Economic Development*" Security. Market* Journal Nigeria Vol. 6.

Shaw, E. (1973*): Financial Deepening in Economic Development*, New York, Oxford University Press, 1973.

Yesufu, T.M. (1996*); The Nigerian Economy; Growth without Development*. Benin Social Sciences Series for Africa, University of Benin, Pp. 89-110.

The results is shown below:
Dependent Variable: ASI
Method: Least Square
Sample: 1100
Included Observations: 100

VARIABLE	COEFFICIENT	STD. ERROR	t-STATISTIC	PROB.
C	765.0403	645.3552	1.185456	0.2388
RM	-69.44167	29.29789	-2.370194	0.0198
CPI	4.551453	0.451368	10.08368	0.0000
NER	-18.37804	7.033934	-2.612769	0.0104
NDC	-0.000982	0.000192	-5.106786	0.0000
R-SQUARED	0.826824	MEAN DEPENDENT VAR.		2543.542
ADJUSTED R- SQUARED	0.819533	S.D DEPENDENT VAR.		3326.975
S.E. OF REGRESSION	1413.346	AKAIKE INFO CRITERION		17.39401
SUM SQUARED RESIDUAL	1.90E + 08	SCHWARZ CRITERION		17.54427
LOG LIKELIHOOD	-864.7007	HANNAN-QUINN CRITER		17.44673
F-STATISTIC	113.3941	DURBIN-WATSON STAT.		0.295284
PROB (F-STATISTIC)	0.000000			

SOURCE; Extracted from E - view 7.0 Output

NOTE: In the analysis, the E. views, version 7.0 was adopted. The ordinary least square (OLS) estimation technique was used in the single equation models.

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:
http://www.iiste.org

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: http://www.iiste.org/journals/ All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: http://www.iiste.org/book/

Academic conference: http://www.iiste.org/conference/upcoming-conferences-call-for-paper/

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library , NewJour, Google Scholar