

MOBILIZATION OF LONG-TERM CAPITAL FOR ECONOMIC GROWTH IN NIGERIA: THE ROLE OF THE STOCK EXCHANGE MARKET

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Abstract

This paper is an empirical discourse of the impact of stock market activities on economic growth in Nigeria. We thus specified and estimated an empirical model utilizing stock market variables in line with economic theory. The results indicate that market capitalization, total value of traded stocks and gross capital formation vis-à-vis the stock exchange market are all positive policy variables if the objective is to boost economic growth through investment in the capital market. Indeed, the results revealed that a boom in the activities of the stock market has significant impact on the country's growth rate. The empirical findings in the study strongly confirm some earlier results of other researches that the contribution of the stock exchange market to economic growth is positive. This study also reveals a rather troubling empirical finding manifesting as negative point estimate obtained for the total number of listed securities in the market. In line with the empirical findings in this study, we thus recommend amongst other things the need to ease up a bit, the requirements for listing securities in the stock exchange market.

Key Words: Long – term capital, Economic growth, Stock Exchange Market and Nigeria.

I. Introduction

One of the most crucial factors for rapid growth and development is the effective mobilization and allocation of long-term capital and other financial resources within the national economy. Thus, the Nigerian stock exchange market which is the nerve centre of the Nigerian capital market has over the years performed a number of functions and activities in an attempt to increase the volume of investable funds available to the market. Amongst these activities are: facilitating the flow of long-term capital into commerce and industries; maintenance of fair price for securities; supervision associated with dealing in securities; provision of facilities for trading in securities and mobilizing funds and other financial resources needed for development and also offering the government the institutional forum for implementing its policies as regards stabilization, monetary controls and the regulation of the banking system (Obadan and Dimowo, 2000).

From the above, it becomes obvious that in the pursuit of economic growth, the stock exchange market is expected to aid in the mobilization of capital, which is both a necessary and a sufficient ingredient for such economic expansion. In an

under developed country like Nigeria, the absence of a developed stock exchange market is a great obstacle to capital formation and economic growth. However, the major problem facing the Nigeria economy is that the rate of capital formation via savings mobilization and investment that will increase the production capacity of the country is very low. Indeed, output is low and so is national income and as a result, per capital income is low hence the propensity to save is very low and this in turn posed a great hindrance to the rate of capital formation (accumulation). Indeed, the growth rate of the economy as well as the economic well-being of the country is bound to suffer inevitably if capital resources are not provided adequately to productive sectors such as industries where demand is growing and which are capable of boosting the productivity level of the economy. The objective of this paper therefore is to empirically unveil the role of the stock exchange market in the mobilization of long-term capital for economic growth in Nigeria.

ii A Survey of the Literature

Positive or negative, what is the impact of stock exchange market activities on growth in terms national output and productivity? There is however no consensus in economic literature based on empiricism on the effects of stock markets on economic growth and development. Some empirical studies found a positive effect from the nexus between stock market activities and the growth of national output while others established a potential negative impact from the observed relationship between stock market activities and growth in output. According to Jhingan (2004), the second important economic factor in growth is capital accumulation. He further states;

“The process of capital formation is cumulative and self-feeding and includes three inter-related stages: the existence of real savings and rise in them; the existence of credit and financial institutions to mobilize savings and to divert them in desired

channels, and to use these savings for investment in capital goods. Thus, the problem of capital formation becomes two fold, how to increase the propensity to save of the people in the lower income groups, and how to utilize current savings for capital formation.”

The question is what role does the stock exchange market play in boosting the rate of capital accumulation? Dailami and Alkin (1990) had observed that the stock exchange market plays an important role in mobilizing savings and channeling such savings into productive investment for the growth and development of commerce and industry. The market acts as an important link between savers and investors. The savers (lenders of funds) who do not completely exhaust all income are the “surplus unit” while the investors (borrowers of funds) are the “deficit units” Thus, the stock exchange market is therefore the transmission mechanism between surplus funds to deficit units and it is a conduit through which surplus units lend their surplus funds to deficit units. Accordingly, funds flow into the capital market from individuals and other financial intermediaries, which are in no time absorbed by commerce, industry and government. And these indeed facilitate the movement of a stream of capital to be used in productivity and more profitably to increase the national income (see Jhingan, 2001; Dougall and Gummite, 1987). In the view of Mc Kinnon (1990), the stock exchange is expected to mobilize long-term savings to finance long-term investment by providing risk capital in the form of equity or quasi-equity to entrepreneurs. This assertion by Mc Kinnon quiet agrees with those of Ogwu and Omole (1997). According to them, the stock market is extremely crucial in the mobilization of savings and the channeling of such financial savings to profitable self-liquidating investment. No wonder Nyong (1997) sees the stock market as a financial institution which exists to transfer capital from those parties with surplus funds to those sectors of business that need extra funds to carry their

investment or expenditure plans.

Alile and Anao (1986) noted that one of the central functions of the stock exchange market is to assist in the mobilization and allocation of savings among competing users that are critical to the determination of the growth and efficiency of the economy. They explained thus;

the stock exchange seeks to facilitate the efficient allocation of available capital funds to the diverse uses in the economy and through its extremely sensitive mechanism, ensures that so much of the capital available is allocated to each industry as that firm deserves to have.

Indeed, they viewed the stock exchange as a barometer, which can measure and detect the symptoms of economic boom or decline long before the predicted economic prosperity or depression actually occurs. This is in line with Anyanwu's (1988) assertion that the stock market may affect economic activities through the creation of liquidity. He maintained that the stock exchange is a market where large and small investors alike buy and sell through stockbrokers, the shares or stocks of companies and government agencies. The implication here is that the contribution of the stock market necessarily promotes economic growth because it provides a mechanism for mobilizing private and public savings and making such funds available for productive purposes. The stock exchange according to Odife (1997) assists in the allocation of the country's capital resources among numerous competing alternative users, hence serving as an aid in the financial industry.

In the view of Onosode (1998), the stock market is where shares of publicly owned companies are bought and sold. Odife (1993) had opined that the stock market is a market for the buying and selling of stocks, shares and securities. He added that the essence of such a market is to raise money for business expansion and development through

investors who own shares in corporations. A common feature of all the definitions above is that the stock exchange by providing the essential saving into productivity investment on the part of the individuals, companies and government agencies promotes national output. Indeed, the aforementioned institutions which operate in the market give direction to the flow of funds and this in turn brings rational allocation of resources. This they do by converting financial assets into productive physical assets thereby leading to the development of commerce and industry through joint participation of both the private and public sectors. The ultimate objective is including economic growth. The allocative role of the stock exchange market is therefore a critical issue in an attempt to determine the overall growth of the economy. This is the reason why those proponents of a positive impact of stock market activities emphasized that the stock exchange is a crucial part of the economic life of any nation. Indeed, the activities of the exchange are not only a desideratum but also, a sine-qua non for the accumulation of domestic capital which is the main key to economic growth as it provides a dual role: reflecting effective demand and creating productive efficiency for future production. These processes eventually lead to increase in national output. Such an exchange market has the potential of providing a link between savers and investors, thereby leading to capital formation and economic growth (Jhingan, 2001).

According to Beneivenga et al (1996), by facilitating long-term profitable investment, efficient stock markets improve and promote the allocation of capital and thus enhance prospects for long-term economic growth and development. They added that, by making investments less risky and more profitable, a stock market can also lead to more investment and better funds for the needy enterprise.

As mentioned earlier, in spite of all the observed positive effects of the activities of the stock exchange market on the growth of the national economy, the empirical literature is still far less

conclusive. For example, it has been argued that securities markets have generally not contributed positively to the economic development of those countries that created them (Wai and Patrick, 1973). On their part, James and Mary (1973) maintained that, most investors see investment as a kind of game in which the sole purpose is to pick the winner. Thus, such an outlook can lead to a myopic concentration on short-run changes in the prices of stocks and to the neglect of the extremely crucial role, which the capital market plays in the real economy. According to Calamati (1983), securities markets increase economic fluctuations, distort wealth allocation and as such hinder economic growth and development. In the view of Stightz (1989), the role played by stock exchange market as a source of funds is limited due to fundamental problems of enforcement, adverse selection and incentives undermining the protection of investors. The conclusion that the securities market in developed countries do not contribute positively to economic growth and development might have arisen from the malfunctioning of institutions in the markets (Uwubanmwun, 2001).

The devastating effects of the activities of the stock market on economic growth can therefore be adduced to the numerous problems confronting the exchange. Amongst such problems are: death of shares to buy on the market and traded in (low volume of securities); inadequate legal framework; and a buy-and-hold" attitude of the Nigerian investors (Obadan and Dimowo 2000). Other related problems facing the Nigerian stock exchange market (NSEM) are:- unstable macro-economic environment arising from high and rising inflation, exchange rate depreciation, negative real interest rate, doubts of solvency of key financial institutions, high rate of distress amongst Nigerian banks, high rate of corruption amongst company owners (tax avoidance and over-invoicing of taxable balance), inadequate level of financial intermediation, unfavorable requirement for listing on the Nigerian stock exchange and the observed structural distortions that make government stocks relatively

unattractive and unsellable to individuals and private enterprises (Arego, 1990; Akingbokingbe, 1988). According to Uwubanmwun (2001), the reasons for the poor performance of the stock markets, as noted by Killick and Martin (1990), are as follows: insufficient supply of shares and a small number of quoted companies; insufficient demand for securities; and over-dependence of companies on bank finance and other forms of borrowings.

III Theoretical Framework

The transmission mechanism through which activities of the stock exchange market affect economic growth lies on the key indicators of the stock market development. Levine and Zervous (1996) identified these market indicators as: the value of stock market transactions; the value of market capitalization, rate of returns on securities etc. These variables identified by Levine (1996). Demirguc-Lenut and Levine (1996) developed an endogenous model through which stock markets development affect economic growth in countries like Chile, Korea, Malaysia, and Philippines. In their model, stock market developments are measured in terms of stock market transactions and market capitalization. Thus, identifying with Levine and Zervous (1996) and Demirguc-Lenut and Levine (1996), we utilized the following variables (Key indicators) of stock market development in the transmission mechanism through which activities of the stock market could affect the growth of the economy. These include: market capitalization; total value of traded stock; value of new issues; gross capital formation, and total number of listed securities.

A positive relationship is expected between gross domestic product (GDP) a proxy variable for the growth of national output in the economy and market capitalization. Indeed, market capitalization is a key indicator of stock market development hence its growth is a reflection of gross additional capital which if mobilized from the stock market for private and public investment needs could aid inducing economic growth. Also, gross capital formation captures the net addition in

capital growth hence capital accumulation in the form of increases in capital stock is expected to promote economic growth. Thus, increase in gross capital formation is expected to eventually bear positively on the growth of the economy.

It is expected that increase in total value of traded stock will contribute positively to the growth of the economy. A rise in the total value of traded shares is an indication of increases in the rate of funds mobilization from the surplus units to the deficit units and this immensely boost the level of productive investment that is critical to the growth of the economy. Also, the relationship between value of new issues and economic growth is expected to be positive. This is because, an increase in the volume of new issues implies a boom in the activities of the market and this eventually intensifies the link between savers and investors thereby promoting capital formation and economic growth. Lastly a positive nexus is expected between the total number of listed securities in the stock market and the growth of the Nigerian economy. When there is a high range of listed securities to buy and be traded in the stock market then the breadth and depth of the market would be enlarged and this makes it more convenient for both the dealers and brokers in the market to transact business i.e. mobilizing savings and channeling such savings into productive investment for the growth and development of the national economy.

The Model

Our model is thus specified to capture the relational between the aforementioned stock market variables and economic growth (growth of national output) proxied by gross domestic (GDP). The model in its empirical form becomes;

$$\ln \text{GDP} = \alpha_0 + \alpha_1 \ln \text{MCAP} + \alpha_2 \ln \text{TVT} + \alpha_3 \ln \text{NIS} + \alpha_4 \ln \text{GCF} + \alpha_5 \ln \text{LSC} + U \dots (1)$$

Where;

- GDP = gross domestic product
- MCAP = market Capitalization
- TVT = total value of traded stock
- NIS = value of new issues
- GCF = gross capital formation
- LSC = total number of listed securities
- U = stochastic disturbance term
- $\alpha_1 - \alpha_5$ = parameters to be estimated with the following "a priori" signs; $\alpha_1, \alpha_2, \alpha_3, \alpha_4$ and $\alpha_5 > 0$
- ln = natural logarithm of variables

Data Sources and Estimation Technique

Equation (1) above was estimated with MFIT 4.1 economic software package (Pesaran, 1997) using the Ordinary Least Squares estimation technique. Data used in estimation were annual time series data covering the period, 1970-2007 which were obtained from various issues of the Central Bank of Nigeria (CBN) Annual Reports and Statement of Accounts, Economic and Financial Review and Statistical Bulletin. A supplementary data source was the National Bureau of Statistics Annual Abstract of Statistics.

IV. Empirical Analysis

The initial ordinary least squares regression results of the estimation revealed that the Durbin- Watson statistic fell in the grey region which implied the existence of serial correlation. In attempting to correct for the existence of serial-correlation, we experimented with the second order autoregressive schemes, using Cochran-Orcutt, Exact AR (2) Newton-Raphson Iterative and the Maximum likelihood estimation method. The best and satisfactory result was obtained with the maximum likelihood estimation method. The results of the final estimation are reported below in table 1.

Table 1: Results of Stock Market Activities on Economic Growth (GDP) in Nigeria: 1970-2007

Explanatory Variables	Coefficient Estimate
Constant	78577.5 (88.65) *
In MCAP	204.34 (10.23)*
In TVT	396.46 (8.65)*
In NIS	0.98 (9.61)*
In GCF	1.26 (4.23)*
In LSC	-0.76 (-1.90)**
R ²	0.99
R-2	0.91
F(8,12)	362.4*
DW	1.97

Notes: T-values are reported in parenthesis beside each coefficient estimate

* Significant at the 1% level.

* Significant at the 10% level.

An evaluation of the results in table 1 reveals that all the five variables i.e. indicators of stock market activities in the model explain about 99 percent of the total variations in growth of national output proxied by the growth rate of gross domestic product. The F-statistic of 362.4 signifies that the overall model is highly significant at the 1 percent level implying that activities of the Nigerian Stock Exchange market are dependable predictors of the growth of national output. Except for total number of listed securities in the Exchange, all other point estimates of the parameters (coefficient estimates) have the expected signs. As expected, market capitalization index, a measure of the growth of the stock exchange market impacted positively on output growth. This variable is also significant at the 1% level. Total value of traded stocks as expected impacted positively and significantly on growth in Nigeria and so does the value of new issues and gross capital formation. Indeed, except for total number of listed securities, other stock market variables contributed significantly in

boosting economic growth over the study period.

For example, a one percent increase in total market capitalization will engender about 204.34 percent rise in the growth rate of national output. Also, a 1 percent increase in total value of traded stocks results in a 396.46 percent increase in output growth. About 10 percent increase in the value of new issues in the market would lead to about 9.8 percent rise in the growth rate of the economy while a similar increase in gross capital formation will result in 2.6 percent growth. Only the case of the total number of listed securities is different in that a one percent rise in the number of listed securities would lead to a 0.76 percent decline in growth. This might be capturing the debilitating effects of a very small proportion of listed securities being available in the market. This is a restatement of the problem of low volume of securities to be traded and a reflection of the unfavorable listed requirements on the part of the Nigerian Stock Exchange (NSE).

It terms of elasticity, the degree of responsiveness of national growth with respect to changes in total market capitalization, total value of traded stock and gross capital formation all exceed unity. And recognizing the fact that the entire market variables pass the significance test, one may conclude by saying that stock market activities have significant impacts on growth in the country. There is absence of the problem of serial correlation, implying that the estimated results never fluctuated in the wrong direction and above all are devoid of unduly large standard error of estimation. These results can therefore be used for forecasting purposes.

Policy Implications

The implications arising from the above analysis are strictly obvious. As it were, the results provide empirical evidence in support of the fact that activities in the stock exchange market are to a great extent issues of policy in the market if the desire is to mobilize long term capital for the economic growth and development of the country. Indeed, total market capitalization, total value of traded stocks, value of new issues in the exchange, and gross capital formation are all positive policy options for consideration if the desired objective is to boost economic growth through the flow of long-term capital into commerce and industries. The perverse sign of the total number of listed securities in the market is a pointer to the fact that the very small proportion of listed securities to be traded on in the market has some devastating and debilitating effects on growth. It is thus, a reflection of the unfavourable listing requirements on the part of the Nigerian Stock Exchange. As a matter of urgency therefore, it is a clarion call on the part of the authorities to ease up the requirements for listing securities in the Nigerian Stock Exchange.

V Summary and Concluding Remarks

This paper is an empirical discourse of the impact of stock market activities on economic growth in Nigeria. The results indicate that market capitalization, total value of traded stocks and gross capital formation vis-à-vis the stock

exchange market are all positive policy variables if the objective is to boost economic growth through investment in the capital market. Indeed, the results reported that a boom in the activities of the stock market has significant impact on the country's growth rate. The empirical findings in the study vehemently confirm some earlier results of other researches that the contribution of the stock exchange market to economic growth is positive. However, the analysis in this study also contains a rather troubling empirical finding which manifested as negative point estimates obtained for the total number of listed securities in the market. Some policy implications glaring from these empirical findings make us to recommend as follows:

- * That the authorities of the Nigerian Stock Exchange need to ease up a bit, the requirements for listing in the stock exchange.
- * There is need to increase the mobilization of aggregate savings which could help boost capital formation through the exchange needed for productive investment; and
- * There is the felt-need for policy makers to consciously monitor the behaviors of the market variables: market capitalization index, total value of traded stocks, value of new issues and the total number of listed securities in the market.

In conclusion therefore, it is evident that the activities of the stock exchange market have contributed significantly to the growth of the Nigeria economy hence the recommendations above are of utmost importance to policy-makers if the desired objective is to mobilize and generate long-term capital that is sufficient for productive investment required to accelerate economic growth in Nigeria.

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