

## *Original Paper*

# Impact of Capital Market on Domestic Resource Mobilization for Economic Development in Nigeria (2000-2015)

Nwankwo, S. N. P.

Department of Accounting & Finance, Godfrey Okoye University, Enugu State, Nigeria

### **Abstract**

*The study investigated the impact of Nigerian capital market on domestic resource mobilization for economic development, using time series data from 2000 to 2015. The study employed secondary data obtained from the Central Bank of Nigeria Statistical Bulletin, the Nigerian Stock Exchange Fact Book and Securities and Exchange Commission database. To evaluate the impact of the independent variables on the dependent, the Ordinary Least Square (OLS) method of estimation was employed. Augmented Dickey Fuller (ADF) test was used to identify the order of integration. Economic growth was proxied by Gross Domestic Product (GDP) while the capital market variables considered include: Market Capitalization (MCAP), Total New Issues (TNI) and Value of Transactions (VLT). Applying Johansen and Juselius co-integration test, the result showed that there was at most one co-integrating equation in the model, implying that there is a long run relationship between the variables in the model. The causality test results suggest bidirectional causation between the GDP and the Value of Transactions (VLT) and to the GDP but not vice-versa. Using two-tailed test, the F-statistics is significant at 5 percent level of significance. Furthermore, there was no evidence of reverse causation from GDP to market capitalization and there was no evidence of independence causation between the GDP and Total New Issues (TNI). The study showed that the major problem with domestic resource mobilization in Nigeria have been that not enough savings are being generated to facilitate the required investment. Also, the type of savings available does not easily make financial intermediation possible. The Nigerian stock market has been constrained by policies that tend to make the exchange look like a mechanism by which government raise loan finance rather than an instrument for mobilizing industrial finance. It is recommended therefore that the regulatory authority should appraise and modify the restrictive policies that constrained resource mobilization capacity of the Nigerian capital market.*

### **Keywords**

*Nigerian stock exchange, capital market, mobilization, domestic resources, economic development*

## 1. Introduction

Domestic resource mobilization for economic development purposes is becoming more important as access to foreign resources have become increasingly difficult to get. The global financial crisis and the subsequent recession have made access to foreign resources more difficult. It has also affected the mobilization of domestic resources. Mobilization of domestic resources for economic development has long been the central focus of development economics (Mohtadi & Agawal, 2004; Silvertos & Duog, 2005; Agawal, 2010; Barro & Sala-Martins, 2012). For sustainable growth and development, funds must be effectively mobilized and allocated to enable businesses and the economy harness their human, material and management resources for optimal output. The stock market is an economic institution which promotes efficiency in capital formation and allocation (Balaban, 2005). The stock market enables government and industry to raise long-term capital for financing new projects, expanding and modernizing industrial/commercial concerns (Yartey, 2007b).

The stock exchange, as an important component of the capital market, plays a significant role in capital formation process because of the tremendous opportunities that ensue from its activities. The stock exchange is expected to mobilize long-term savings to finance long-term investments by providing capital in the form of equity or quasi-equity to entrepreneurs (Yartey & Adjasi, 2007). Indeed, the stock exchange is really not just a financial institution, but the very hub of the capital market, the pivot around which every activity of the capital market revolves. Hence, the exchange is expected to encourage broader ownership of productive assets and enhance the efficiency of the capital market through a competitive pricing mechanism (Baier, Dwyer, & Tamura, 2003). There is an argument that the capital markets in developing countries in general have not lived up to expectation in terms of the extent and degree of capital mobilization for economic development (Arestis & Demetriades, 2007; Yartey, 2007b; Yartey & Adjasi, 2007; Arestis & Demetriades, 2010). In spite of policies instituted by the government at various times, the performance of the Nigerian stock exchange over nearly 30 years of its existence has been relatively poor compared to other stock exchanges of similar age in some developed countries (Modebe, Ugwuegbe, & Ugwuoke, 2014).

A comparison of the Nigeria capital market with, for example, those of Korea, Malaysia and India based on such indicators as market capitalization as a proportion of GDP and value of stock traded, shows the dismal condition of the Nigerian capital market. Market capitalization as a percentage of GDP increased remarkably in all the countries except Nigeria. Only in Nigeria did this variable increased by less than a percentage point (Modebe, Ugwuegbe, & Ugwuoke, 2014). To this end, the aim of this study was to appraise the impact of capital market in mobilizing domestic resources for economic development in Nigeria.

## 2. Literature Review

### 2.1 Evolution and Structure of the Nigerian Stock Exchange

The Nigerian stock Exchange began as the Lagos stock Exchange incorporated in 1960. The Lagos stock exchange was later transformed into the Nigeria Stock Exchange in 1977. This Exchange is the key player in the Nigerian Capital Market. Although the Securities and Exchange Commission regulates the activities of the exchange, it is privately owned. The exchange has three categories of membership namely; the foundation members, the ordinary members, and the dealing members. The foundation members are the seven members that signed the memorandum of association on inception. The ordinary members are the shareholders of the register of members. This category of members is those who share any profit or loss made by the exchange. The dealing members are those ordinary members who are licensed by the council to trade in the floor of the exchange. They act as intermediaries between buyers and sellers of securities (Agu, 2010).

The functions as set out in the memorandum of association of the exchange include:

- a) Creating an appropriate mechanism for capital formation and efficient allocation of savings among competing productive investment projects.
- b) Maintaining discipline and confidence in the capital market.
- c) Mobilizing long-term financial resources for industrial project with long-term gestation periods; and
- d) Broadening the share ownership base of enterprises.

The Nigerian capital market comprises several markets—the market for new issues (primary market) and a market for existing securities (secondary market). There are also a market for debt securities and a market for equities (Ogwumike & Omole, 1997). The primary market is concerned with the offering of new shares or the initial issue of securities in the exchange. In the primary market two types of securities are issued, debt and equity. Debt instruments include the federal government development stocks and the industrial loans and preference stock/bonds.

The secondary market provides the mechanism for converting illiquid assets to liquid cash. This market provides the means whereby investors monitor the values of their shares and liquidate them when they so desire.

To facilitate its smooth operations, the stock exchange function under rules and regulations to which its members are expected strictly to adhere. Some of the rules are:

- a) Restriction from public advertisement or canvassing.
- b) Restriction from charging exorbitant fees.
- c) Restriction from marrying deals between two of its client without giving other brokers a chance to offer or bid.

The Nigerian Stock Exchange (NSE) is governed by a Council (Board) of the stock Exchange, which is the highest policy making body of the exchange. The council is presided over by a president and the administration of the stock exchange is vested in the Director-General. The powers and functions of the council are:

- a) Enforcing the articles as well as the rules and regulations of the exchange.

- b) Taking disciplinary measures against erring members and policing the market.
- c) Granting quotations to companies and decisions to delist, suspend or withdraw quotation from any quoted company as it may deem fit.
- d) Protecting the interest of the investing public (Alile & Anao, 1986).

The council facilitates its functions through the use of committees drawn from its members to deal with specific matters. The Securities and Exchange Commission (SEC) is the top regulatory body for the NSE. It was established under the Securities and Exchange Commission Decree of 1979 (re-enacted as Decree No.29 of 1988). The SEC's functions can be grouped into two broad areas, regulatory and developmental. Among other things, it determines the price, amount and time at which securities of a company are to be sold either through offer for or by subscription in the primary market. It also creates the necessary atmosphere for order, growth and development of the capital market (Ogwumike & Omole, 2011, p. 32).

At present the stock exchange has nine branches and trading floors viz Lagos (1961), Kaduna (1978), Port Harcourt (1980), Kano (1989), Onitsha (1990), Ibadan (1990), Abuja (1999), Yola (2002) and Benin (2005). Lagos is the head office of the exchange and two new branches are proposed for Uyo and Bauchi. The NSE started with 19 securities (1961) listed for trading hitting 19.2 billion (2004) and 26.7 billion (2005). The total market capitalization is over N4 trillion (Eshiobo, 2010).

The NSE market has in place a network of staffed stock brokerage firms, issuing houses (merchant banks), corporate law firms and firms of auditors and accountants who subscribed to the code of conduct "our word is our bond". There are over three million individual investors and hundreds of institutional investors including foreigner/foreign companies who owned about 47% of the quoted companies (Eshiobo, 2010).

Trading is carried out through Automated Trading System (ATS) involving a network of computers through which stock brokers match bids and offers on the different trading floors of the stock exchange. To make the NSE more efficient and investor friendly, a Central Securities Clearing System (CSCS) limited or clearing house was introduced in 1992 to electronically clear, settle and deliver transactions on the exchange. The CSCS has an integrated central depository for all share certificates electronic/book-entry of transfer of shares from sellers to buyers, record of settlement of payment for purchased securities, a register of members, custodian services for safe keeping of certificates of foreign investors, provides quarterly information on individual stock account, provide opportunity of using stock as collateral for borrowing money, reduce investor's risk of loss of certificate, reduce operational cost of stock broking firms.

The NSE also has inter and intra-net services (NSE CAPNET) and a web site (<http://www.ingerianstockexchange.com>). The NSE has undergone internationalization in 1995 as a result of the deregulation of the capital market in 1993. There are now local and international participants/investors in the market for instance Oando Plc was granted listing status on the Johannesburg Stock Exchange (JSE) in 2005 (Eshiobo, 2010).

Transaction in foreign portfolio was in excess of N10 billion less investments under banks recapitalization programme. Trade alert service was launched in March, 2005 to further secure the market against unethical practice, especially unauthorized sale of client's shares. The service keeps the investor informed or alerted about the statement of his stock account regularly or communicated market related information to subscribers.

## 2.2 Operators of the Nigeria Stock Exchange (NSE) Market

The operators or participants of the Nigerian Stock Exchange are dealers/brokers, jobbers, issuing houses, registrars, underwriters, trustees, portfolio or fund managers who provide services to investors and borrower's in the capital market.

- **Stockbrokers and dealers.** They are the licensed members of the stock exchange who maintain a fair and orderly succession of price for a specific security traded on the stock exchange. They act as agent to both buyers and sellers of stocks receiving to buy or sell order instruction from them. They provide professional advisory services on choice and management of investment. Their business is mainly in the second tier Securities Market (SSM) established in 1985 to provide local indigenous investors opportunity to raise capital. They mobilize investor's stock to be lodged with CSCS for transaction on the floor of each exchange and also Liaise with stock transactions settlement banks using the ATM and Transnet facilities. The broker or brokerage firm receives commission or brokerage fee as its remuneration for services rendered to customers or clients.
- **Jobbers:** They are members of the stock exchange who specialized in particular group of securities such as mining, food, oil, etc. They are the actual dealers in securities but transact business only with brokers who act on behalf of investors. Jobbers deal on homogenous securities while brokers deal on heterogeneous securities.
- **Issuing Houses:** An issuing house is a financial institution and a non-dealing member of the NSE. The house prepares prospectus for the sale of new securities to the public issued by companies and governments. They handle mainly primary securities covering offer for subscription, rights issues (bonus shares to existing shareholders), offer for sale, private placement, financial advisers on mergers, acquisitions and takeovers. An issuing house requires N40 million paid up capital to register.
- **Registrars:** These are transfer agents for the opening of registers and maintaining the list of shareholders of the companies on the conclusion of subscriptions and allotment. They are in two categories, in-house and the general registrars. The in-house registrar maintains its own register of members of listed companies. The general registrar is a distinct corporate body that specifically opens a register for all members of the stock exchange. They also accept lodgments of documents in respect concluded transactions, collation of returns on public offer such as interest, dividends or return money for over subscription.
- **The Nigerian Stock Exchange (NSE):** This is a self regulatory organization that supervises the operation of the formal capital market in addition to other investment guide/services (Agu, 2010).

- **Underwriters:** These are institutions just like insurance companies that facilitate and induce success of securities on offer and at the time hedge them against failure. E.g., a stand-by underwriter of a security can make a promise to money available in the event of under-subscription of the security. A firm-underwriter on the other hand can negotiate the price of subscription and pay the issuer off while adding his own margin to market the offer. There is a third group of underwriters that promised only best effort to market a security without financial commitment.
- **Trustees:** A trustee is a firm that holds and manages assets like trust or pension funds, debt securities on behalf of individuals or institutional investors. These operators are assuming greater role with the introduction of the new pension scheme by the federal government of Nigeria in 2005.

### *2.3 Operation of the Nigerian Stock Exchange*

The Nigerian Stock Exchange opens for trading in bids and offers between 11am and 1.30pm on the average on every business day. It used the Automated Trading System (ATS) to facilitate business between sellers and buyers of securities via their agents-jobbers, dealers, issuing houses and other operators of the market.

The price of new issues for subscription is determined by the issuing house/stockbrokers while the secondary market prices are determined by the stockbrokers only. A round of transaction (T) is processed and concluded within four days, i.e., (T+3 days) in electronic book entry form. The transaction update is sent to the relevant registrars by the CSCS Ltd to constantly update the register of members of listed companies. Over 400,000 shareholders are on the CSCS system register and only 2,200 requests for certificate to date.

The stock position of an investor is obtainable from the CSCS 4 days after transaction (T+4 days). Investors statement of stock position are issued every quarter free of charge and when on request paid a token charge of #100. Armed with information, investors can speculate more and take useful capital investment decision.

The All-share index (real index) of the exchange was formulated in January 3/1984 as the base year (1984=100). When an investor subscribed to equities and is allotted after full payment he is entitled to attend the Annual General Meeting (AGM) of shareholders and can vote to elect the management of the company. The return on equities to the investor is by way of dividend or price appreciation or scrip issues. The returns on government stock or bond or debenture and other industrial loans is the interest rate yield.

### *2.4 Challenges Associated with Domestic Resource Mobilization*

There are several challenges that inhibit effective domestic resource mobilization especially in developing countries like Nigeria. These include:

- Low Savings:** The main problem with mobilization of resource in Nigeria is that not enough savings are generated to facilitate the required investments. In Nigeria savings rates are low and do not compare with that of other countries. The gross domestic saving in other African countries amounted to 17.6% of GDP in 2006 compared to 26% in South Asia and about 43% East Asia and Pacific countries

(World Bank, 2007). The low saving rate in sub Sahara Africa explains the low level of economic activity in the region and the slow pace of growth (Yartey & Adjasi, 2007). Other factors include the very low levels of financial intermediation and credit on the continent and the fact that over 40% of Nigerian savings are invested outside Nigeria (Eshiobo, 2010).

**b. Capital flight:** Capital flight remains the single most impactful stumbling blocks to domestic revenue mobilization. Tax flight from developing countries is estimated to be several times higher than aggregate inflows from development assistance (Atje & Jovanovic, 2013). Capital flight severely weakens domestic revenue mobilization in Nigeria. It undermines social contracts and damages good governance. In the context of Africa the United Nations Conference on Trade and Development (UNCTAD) estimated in 2007 that capital flight caused considerable damage because Africa investments world-wide were worth 400 billion US dollars which was double the entire African debt worth 215 billion US dollars (cited in Barro & Sala-Martins, 2012).

**c. Tax Incentives and Exemptions:** Fleischer (2002, p. 3) defined tax incentives as “any tax provision granted to a qualified investment project that represents a favorable deviation from the provisions applicable to investment projects in general”. The economic theory is that it acts as a tool for promoting investments (Baye & Jenson, 2006). In practice however, it has been observed that tax incentives distort resource allocation leading to some sub-optimal investment decisions and therefore harmful to long term growth.

- Tax incentives are not the primary determinants of the decision to invest; instead most investors base their investment decisions on economic and commercial factors on one hand and institutional and regulatory factors on the other.
- Often many multinational enjoy foreign tax credit at home and giving them tax incentives may have minimal impact on their profit which in effect allows the developed home country to be the final beneficiary of the tax break.
- Finally most often, start-up companies make losses for several years and do not benefit from tax exemptions. It is however the firms that make profit from the start that benefit from tax exemptions and these would have been invested anyway. Typical example is the housing industry in Ghana (Yartey, 2007b).

### *2.5 The Role of Stock Exchange*

The Stock Exchange provides companies with the facility to raise capital for expansion through selling shares to the investing public. Besides the borrowing capacity provided to an individual or firm by the banking system in the form of credit or loan, there are four common forms of raising capital used by companies and entrepreneurs. Most of these available options might be achieved, directly or indirectly, involving a stock exchange.

**a) Going Public:** Capital intensive companies, particularly high-tech companies, always need to raise high volumes of capital in their early stages. By this reason, the public market provided by the stock exchange, has been one of the most important funding sources for many capital intensive startups.

After the 1990s and 2000s hi-tech listed companies boom and bust in the world's major stock exchanges, it has been much more demanding for hi-tech entrepreneur to take his/her company public, unless either the company already has products in the market and is generating sales and earnings, or the company has completed advanced promising clinical trials, earned potentially profitable patents or conducted market research which demonstrated very positive outcomes. This is quite different from the situation of the 1990s and 2000s period, when a number of companies (particularly internet boom and biotechnology companies) went public in the most prominent stock exchanges around the world, in the total absence of sales, earnings and any well-documented promising outcome (Ukwuani, 2012).

**b) Mobilizing Savings for investment:** When people draw their savings and invest in shares (through an IPO or the issuance of new company shares of an already listed company), it usually leads to rational allocation of resources because funds, which could have been consumed, or kept in idle deposit with banks, are mobilized and redirected to help companies' management boards finance their organizations. This may promote business activity with benefits for several economic sectors such as agriculture, commerce and industry, resulting in stronger economic growth and higher productivity levels of firms. Sometimes it is very difficult for the stock investor to determine whether or not the allocation of those funds is in good faith and will be able to generate long-term company growth, without examination of a company's internal auditing.

**c) Facilitating Company Growth:** Companies view acquisitions as an opportunity to expand product lines, increase distribution channels, hedge against volatility, increase its market share, or acquire other necessary business assets. A takeover bid or a merger agreement through the stock market is one of the simplest and most common ways for a company to grow by acquisition or fusion.

**d) Profit Sharing:** Both casual and professional stock investors, as large as institutional investors or as small as an ordinary middle class family, through dividend and stock price increases that may result in capital gains, share in the wealth of profitable businesses. Unprofitable and troubled businesses may result in capital losses for shareholders.

**e) Corporate governance:** By having a wide and varied scope of owners, companies generally tend to improve management standards and efficiency to satisfy the demands of these shareholders, and the more stringent rules for public corporations imposed by public stock exchanges and the government. Consequently, it is alleged that public companies (companies' that are owned by shareholders who are members of the general public and trade shares on public exchanges) tend to have better management records than privately held companies (those companies where shares are not publicly traded, often owned by the company founders and/or their families and heirs, or otherwise by a small group of investors).

**f) Creating Investment Opportunities for Small Investors:** As opposed to other businesses that require huge capital outlay, investing in shares is open to both the large and small stock investors because a person buys the number of shares they can afford. Therefore the Stock Exchange provides the opportunity for small investors to own shares of the same companies as large investors.

**g) Government Capital-Raising for Development:** Governments at various levels may decide to borrow money to finance infrastructure projects such as sewage and water treatment works or housing estates by selling another category of securities known as bonds. These bonds can be raised through the Stock Exchange whereby members of the public buy them, thus loaning money to the government. The issuance of such bonds can obviate the need, in the short term, to directly tax citizens to finance development though by securing such bonds with the full faith and credit of the government instead of with collateral. The government must eventually tax citizens or otherwise raise additional funds to make any regular coupon payments and refund the principal when the bonds mature.

**h) Barometer of the Economy:** At the Stock Exchange, share prices rise and fall depending, largely, on market forces. Share prices tend to rise or remain stable when companies and the economy in general show signs of stability and growth. An economic recession, depression, or financial crisis could eventually lead to a stock market crash. Therefore the movement of share prices and in general of the stock indexes can be an indicator of the general trend in the economy.

#### *2.6 Statutory Role of Stock Brokers in Mobilizing Domestic Resources*

The stockbrokers are major players in the activities leading to the public offer of securities in the primary market. The stock brokers according to Alile and Anoa (1990) is guided by the Companies and Allied Matters Act of 1990, Banks and Other Financial Institutions Act of 2004 as amended, Insurance Act of 1997, Investments and securities Act of 1999, Rules and Regulations pursuant to Investments and Securities Act of 1999 issued by SEC and Rules and Regulations governing listing of securities on the Nigerian Stock Exchange issued by the Nigerian Stock Exchange (NSE). They are also regulated under the Chartered Institute of Stockbrokers Acts. In a public issue, once a mandate has been won and the Issuing House and the Issuer have determined the turning of the offer, the broker must be appointed. He acts as the principal intermediary between the company, its advisers, and the Stock Exchange. He facilitates the listing of securities after the application and registration requirement of the SEC have been complied with (Sule & Momoh, 2009).

The issuing house and the stockbroker collaborate with the issuer to ensure compliance with the requirement of the Companies and Allied Matters Act 1990 as amended. At the mandate giving stage, the stockbroker files an application to the stock Exchange intimating her of the offer. He consequently vets all documents for presentation to regulatory authorities and authenticates all claims made therein. At the approval stage, the stockbroker sponsors the application to the Stock Exchange along with the accompanying documents and information. He answers any queries and/or question that may be asked by the quotation department of the Nigerian Stock Exchange (Sere-Ejembi, 2008).

Furthermore, the stockbroker delivers to the Exchange proof print of the prospectus, the application form, poster and newspaper advert after approval has been given by the quotation committee as well as collect the certificate of Exemption issued in accordance with section 553 of Companies and Allied Matters Act and this authorizes the issuer to produce the abridged prospectus prior to the Completion of Board Meeting. Also, the stockbroker with the other parties to the issue signs the verification

questionnaire and offer documents at the Completion Board Meeting and files a complete set of the signed documents with the stock Exchange immediately after the meeting and he acts as a receiving agent for the application and ensures wide distribution of the shares.

Apart from the primary market activities of the stockbroker, he also plays a major role in secondary market transactions. Indeed he takes to the floor of the Exchange the shares of an investor who wants to sell or buys shares offered for sale by other stockbrokers. This role places a huge responsibility on the stockbroker. He or she must act in the interest of the investors and be fair, efficient and transparent. In addition, the Stockbroker is expected to exercise due diligence at the floor of the stock exchange by not engaging in sharp practices. The case of bank loans readily comes to mind, the SEC learnt of an alleged scam on the floor of the Nigeria Stock Exchange involving the sale of Nestle Foods Plc, Unilever Plc and other securities. The scam was alleged to have been perpetrated by a syndicate through the use of certain stock broking houses. The SEC found some stockbrokers and other capital market operators liable and were accordingly penalized. They were found to have violated the SEC code for Capital Market operations. The Investment and Securities Tribunal upheld the decision of the SEC save on issues of cost.

There is therefore need to bring the code within the ambit of the proposed amendments to the Investments and Securities Act 1999 through incorporation. This is because it was the lower standard of negligence available in the Code that made some companies and individuals to be found liable. There should be a specific statutory duty imposed on stockbrokers in the ISA 1999, apart from the general law of contract and tort.

### *2.7 Investors' Protection*

Investor's protection in the capital market is aimed at protecting them from deceitful and other unscrupulous and manipulative activities, which can erode the interest of the investors in the market. Investors need to be protected for their own objectives of seeing their investments grow. To protect investors, the SEC rules and Regulations prohibit any person or persons from soliciting for investment business without prior registration with the Securities and Exchange Commission.

Section 148 of the ISA 1999 provides for the establishment of the Investors Protection Fund to cater for the protection of investors. However, it has not been able to achieve the protection of the interest of investors. This is because despite the existence of the Fund, the incidence of market abuses and fraudulent malpractices has remained largely on the increase (Sule & Momoh, 2009).

Capital market integrity seeks to promote the interest of the investors in investing in the market in that shares and stock bought or transferred is authentic and genuine and unsuspecting investors are not defrauded by unscrupulous, callous individuals and corporate organization operating in the market. Therefore verification of stocks and shares before any transfer of stock is made by Stockbrokers, Registrars, Clearing Houses, Issuing Houses, etc., is a mandatory process. Even where the transactions are concluded in-house, the genuineness and authenticity of the shares/stock must not be compromised. A commodity exchange is an association of members, whether incorporated or unincorporated, who

have come together for the purposes of engaging in the buying and/or selling of any commodity and/or future contracts, or who receive the same for sale on consignment. The purpose is to provide competitive markets for the trade of particular commodities or contracts in respect thereof, as well as to provide organized facilities, staff and other necessary resources to support such markets.

Also, section 8(6) of the ISA 1999, Securities and Exchange Commission is mandated and empowered to register and regulate futures, options, derivations and commodity exchanges.

### 3. Methodology

#### 3.1 Sources of Data, Description and Method of Analysis

This study employed secondary data obtained from the Central Bank of Nigeria Statistical Bulletin, Nigerian Stock Exchange Fact Book and Securities & Exchange Commission database. The time series data cover the period 2000 to 2015. In an attempt to investigate the impact of Nigerian Capital Market, which has the ultimate aim of increasing the standard of living of the average Nigerian by improving their income, the study applied co-integration and error correction modeling to the data obtained. We ascertained the link between capital market earnings and macroeconomic growth indices.

The economic development was proxied using the constant value of Gross Domestic Product (GDP) while the capital market performance variables were proxied using the Market Capitalization (MCAP), Total New issues (TNI), Value of Transactions (VLT).

#### 3.2 Model Specification

The methodology adopted in this study was based on the work of Demirgüç-kunt and Levin (1996) in Kolapo and Adaramola (2012), which investigated the linkage between stock market and economic development. The model was however modified to suit the purpose of this study.

The log form of OLS regression model was adopted for this work. The choice of introducing log in the model was to enable us improve on the linearity of the model and also to avoid heteroskedasticity (Modebe, Ugwuegbe, & Ugwuoke, 2014).

$$GDP = f (MCAP, TNI, VLT) \quad (1)$$

Explicitly the above equation can be stated thus:

$$GDP = \beta_0 + \beta_1(MCAP) + \beta_2(TNI) + \beta_3(VLT) + U_t \quad (2)$$

The log form of the model is stated as follows:

$$\text{Log}(GDP) = \beta_0 + \beta_1 \log(MCAP) + \beta_2(TNI) + \beta_3(VLT) + U_t \quad (3)$$

Where

GDP = Gross Domestic Product,

MCAP = Market Capitalization,

TNI = Total New Issue,

VLT = Value of Transactions,

$\beta_0$  = intercept of relationship in the model/constant,

$\beta_1$ - $\beta_4$  = Coefficient of each of the independent variables,

e = stochastic/Error terms by log line arising.

The model becomes;

$$\text{Log(GDP)} = \beta_0 + \beta_1 \log(\text{MCAP}) + \beta_2 \log(\text{TNI}) + \beta_3 \log(\text{VLT}) + e \quad (4)$$

Where; Log = Natural log from equation (4) model can be specified in a time series forms as;

$$\text{Log(GDP)}_t = \beta_0 + \beta_1 \log(\text{MCAP})_t + \beta_2 \log(\text{TNI})_t + \beta_3 \log(\text{VLT})_t + e \quad (5)$$

### 3.3 Estimation Technique

#### 3.3.1 Unit Root Test

The first step involves testing the order of integration of the individual series under consideration. Researchers have developed several procedures for the test of order of integration. The most popular ones are Augmented Dickey-Fuller (ADF) test due to Dickey and Fuller (1979, 1981) and the Phillip-Perron (PP) due to Phillips (1987) and Phillips and Perron (1988). Augmented Dickey-Fuller test relies on rejecting a null hypothesis of unit root (the series are non-stationary) in favour of the alternative hypotheses of stationary. The tests are conducted with and without a deterministic trend (t) for each of the series. The general form of ADF test is estimated by the following equations:

$$\Delta y_t = \alpha_0 + \alpha_1 y_{t-1} + \sum \alpha_i \Delta y_i + \epsilon^t \quad (6)$$

$$\Delta y_t = \alpha_0 + \alpha_1 y_{t-1} + \sum \alpha_i \Delta y_i \delta_t + \epsilon_t \quad (7)$$

Where:

Y is a time series, t is a linear time trend,  $\Delta$  is the first difference operator,  $\alpha_0$  is a constant, n is the optimum number of lags in the dependent variables and  $\epsilon$  is the random error term, the difference between equation (6) and (7) is that the first equation included just a drift. However, the second equation includes both drift and linear time trend.

#### 3.3.2 Co-Integration Test

The second step in this time series analysis is to for the presence or otherwise of co-integration between the series of same order of integration through forming a co-integration equation. The basic idea behind co-integration is that if in the long-run, two or more series move closely together, even though the series themselves are trended, the difference between them is constant. It is possible to regard these as defining a long-run equilibrium relationship, as the difference between them is stationary. Lack of co-integration suggests that such variables have no long-run relationship.

#### 3.3.3 Granger Causality Test

The granger causality test is conducted with a view to determine the direction of causality between the variables under study. The existence of co-integration among the variables implies the existence of causal relationship between the variables, but this does not tell us the direction of this causality hence the need for granger causality test to be conducted to enable us determine the direction of causality that exist among the variables.

### 3.4 Presentation of Data and Interpretation

In this section we present the analysis and interpretation of the result of econometrics analysis adopted in this work.

**Table 1. ADF Result at Significance Level**

Variables	ADF Test Statistic	1%	5%	10%	lag	Order of integration
GDP	-2.147175	-3.7204	-2.9850	-2.6318	1	Non-stationary
MCAP	0.016253	-3.7204	-2.9850	-2.6318	1	Non-stationary
TNI	-0.904397	-3.7204	-2.9850	-2.6318	2	Non-stationary
VLT	-1093589	-3.7204	-2.9850	-2.6318	2	Non-stationary

Source: Researchers' E-view 7.0 result.

The result above showed that all the variables in the model are non-stationary at level. Based on this we difference the variables to see their outcome.

**Table 2. ADF Result at First Difference**

Variables	ADF Test Statistics	1%	5%	10%	lag	Order of Integration
GDP	-3.176048	-3.7343	-2.9907	-2.6348	1	1(1)
MCAP	-4.003735	-3.7343	-2.9907	-2.6348	1	1(1)
TNI	-3.468973	-3.7343	-2.9907	-2.6348	1	1(1)
VLT	-4.002845	-3.7343	-2.9907	-2.6348	1	1(1)

Source: Researcher's E-view 7.0 result.

From the result of ADF test shown above, it showed that all the variables are integrated of same order 1(1). In other words the result shows that GDP, MCAP, TNI and VLT are stationary at 5% level of significance. And so, having established stationarity among the variables, we proceed to test for co-integration with a view to determining the number of co-integrating equation in the model.

**Table 3. Result of Johansson Co-Integration Test**

Eigenvalue	Likelihood ratio	5% critical value	1% critical value	Hypothesized No. of CE(s)
0.881925	102.3270	29.68	35.65	None**
0.492655	13.00484	15.41	20.04	At most 1
0.021306	0.538399	3.76	6.65	At most 2
0.032450	1.499345	3.57	5.557	At most 2

Source: Researcher's E-view 7.0 result.

The result of co-integration analysis showed that at most one co-integrating equation exist in the model at 5% level of significance. This implies that there is a long-run relationship between GDP, MCAP, TNI, and VLT in the model.

**Table 4. The Result of Long-Run Regression Model**

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	1.223061	0.457006	2.676250	0.0132
Log(MCAP)	-0.784358	0.330416	-2.373848	0.0260
Log(TNI)	1.771338	0.345961	5.148950	0.0000
Log(VLT)	1.690347	0.336863	4.056871	0.0000
R-squared	0.884878	Durbin-Watson stat	1.006871	
F- statistic	781.6365	Prob. (F-statistic)	0.000000	

Source: Researcher's E-view 7.0 result.

The result of the long-run model shown in the table above showed that the coefficient MCAP is (-0.784358) with a probability value of 0.0260, which is less than 0.05 implying that bank credit in the long-run has a negative and significant impact on the development of Nigerian economy. On the other hand the coefficient of TNI which was used as a control variable in the model is 1.771338 with a probability value of 0.000 which is less than 0.005 indicating that TNI has a positive and significant impact on the domestic resources mobilization for the development of Nigerian economy for the period under review.

The  $R^2$  value was 0.884878, which means that 88.48% of the variation in GDP is explained in the model leaving only less than 2% to the error term. This also indicates that the line of best fit was highly fitted. This showed that this model is the best model to explain the relationship between the variable under consideration. Durbin-Watson statistics value of 1.006817 shows the likely presence of autocorrelation in the model. The result of F-stat is (781.6365) and the probability of F-stat is 0.0000 which implies that the overall regression is statistically significant.

#### 4. Conclusion

The study investigated the relationship between Nigerian capital market and domestic resources mobilization for economic development from 2000 to 2015. The long-run effect which was determined using co-integration approach indicates that the Nigerian capital market has a negative and significant effect on the development of the Nigerian economy. The Nigerian stock market has been constrained by policies that tend to make the stock exchange look like a mechanism by which government raises loan finance rather than an instrument for mobilizing industrial finance. There are relatively few policies aimed at increasing the growth in the number of companies listed on the stock exchange.

#### References

- Agawal, S. (2010). *Stock Market Development and Economic Growth*. Retrieved from [http://www.unita.org/dmf/resource\\_center/document\\_series/document13/odife/2Devtaf](http://www.unita.org/dmf/resource_center/document_series/document13/odife/2Devtaf)
- Agu, B. O. (2010). *Theory and Practice of Money in Nigeria* (A simple Approach). Enugu: Rity Computers.

- Aigbokan, B. K. (1995). Financial Development Economic Growth: A test of Hypotheses on supply-leading and demand-following finance, with evidence On Nigeria. *Internet copy: Nigeria Economic and Financial Review (NEFR)*, 12(1), 1-10.
- Alile, H. I., & Anao, R. A. (1990). *The Nigerian Stock Exchange in operation*. Lagos: Academy Press.
- Arestis, P., & Demetriades, P. O. (2000). *Finance and Growth: Is Schumpeter Right?* Retrieved from [http://www.enwikipedia/wiki/stock\\_exchange](http://www.enwikipedia/wiki/stock_exchange)
- Arestis, P., & Demetriades, P. O. (2007). *Finance and Growth: The Endogenous Model*. Retrieved from <http://www.ses.man.ac.uk/cgber/discussi.htm>
- Arestis, P., Demetriades, P. O., & Luintel, K. B. (2010). Financial Development and Economic Growth; The Role of the Stock Markets. *The Journal of Money, Credit and Banking*, 33(1), 16-41. <https://dx.doi.org/10.2307/2673870>
- Atje, R., & Jovanovic, B. (2013). Stock Market Development. *European Economic Review*, 37(1), 16-41.
- Baier, S. L., Dwyer, G. P., & Tamura, R. (2003). Does Opening a Stock Exchange Increase Economic Growth? *Federal Reserve Bank of Atlanta Working Paper*, 1-33.
- Balaban, E. (2005). *Some Empirics of the Turkish Stock Market, the Central Bank of the Republic of Turkey* (pp. 1-27). Working Paper.
- Barro, R. J., & Sala-Martins, M. (2012). Convergence. *The Journal of Political Economy*, 10(10), 223-251.
- Baye, M. R., & Jansen, D. W. (2006). *Money, Banking and Financial Markets: An Economic Approach*. India: A.I.T.B.S Publishers and Distributors.
- Dickey, D. A., & Fuller, W. A. (1981). The Likelihood Ratio Statistics for Auto regression Time Series with a Unit Root. *Econometrica*, 49(1), 1057-1072. <https://dx.doi.org/10.2307/1912517>
- Kolapo, F. T., & Adaramola, A. O. (2012). The Impact of the Nigerian Capital Market on Economic Growth (1990-2010). Banking and Finance Department, Ekiti State University, Ado Ekiti. *International Journal Developing Societies*, 1(1), 11-19.
- Modebe, N. J., Ugwuegbe, S. U., & Ugwuoke, R. O. (2014). The impact of bank Credit on the Growth of Nigerian Economy: A Co-Integration Approach. Dept. of Banking, Finance & Accountancy, University of Nigeria Enugu Campus. *Research Journal of Finance and Accounting*, 5(10), 87-95.
- Mohtadi, H., & Agarwal, S. (2004). *Stock Market Development and Economic Growth: Evidence from Developing Countries* (pp. 1-18). Retrieved from <http://www.edu/mo.htadi/PAN-4-11.pdf>
- Phillps, P. C. B., & Perron, P. (1988). Testing for a unit Root in Time Series Regression. *Biometric*, 75(1), 335-346. <https://dx.doi.org/10.1093/biomet/75.2.335>
- Sere-Ejimbi, A. A. (2008). Nigerian Stock Market reflection of the global financial Crisis. An Evaluation. *Lagos: CBN, Bullion*, 32(4), 22-32.
- Silvertovs, B., & Duong, M. A. (2005). The Role of Stock Market for Real Economic Activity: Evidence from Europe. *Journal of Economic Development*, 5(3), 1-15.

- Sule, K. O., & Momoh, C. O. (2009). The impact of Stock Market Earnings on Nigerian Per Capita Income. *Internet copy: African Journal of Accounting, Economic, Finance and Banking Research*, 5(5), 1-21.
- Ukwuani, P. N. (2012). *The Role of Nigerian Stock Exchange in Mobilizing Domestic Resources*. Enugu: Unpublished Term Paper presented to the Department of Banking and Finance ESUT, Enugu.
- Yartey, C. A. (2007b). Well Developed Financial Intermediary Sector Promotes Stock Market Development: Evidence from Africa. *The Journal of Emerging Market Finance, Forthcoming*.  
<https://dx.doi.org/10.1177/097265270700600303>
- Yartey, C. M., & Adjasi, C. K. (2007). *Stock Market Development in Sub-Sahara Africa: Critical Issues and Challenges* (pp. 1-33). IMF Working Paper.