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# Appraisal of Capital Market Efficiency on Economic Growth in Nigeria

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### Abstract

The paper is an appraisal of the impact of capital market efficiency on economic growth in Nigeria, using time series data on market capitalization, money supply, interest rate, total market transaction and government development stock that ranges between 1961 to 2004. The model specification for the analysis of data is multiple regression and ordinary lest squares estimation techniques. The result of the study shows that the capital market in Nigeria has the potentials of growth inducing, but it has not contributed meaningfully to the economic growth of Nigeria. This is as a result of low market capitalization, low absorptive capitalization, illiquidity, misappropriation of funds among others. The empirical test indicates that, these variables satisfied the economic apriori and are statistically significant except total transactions and money. Thus it was concluded and recommended that, the capital market remain one of the mainstream in every economy that has the power to influence economic growth, hence the organize private sector is encourage to invest in it. This will enable the capital market improve its illiquidity status for economic growth and development. Therefore the government must contribute in order to achieve these objectives through investing government securities in productive sectors and relaxing laws that spell threat to the capital market.

Keywords: Capital market, Illiquidity, Market capitalization, Economic growth, Securities

### 1. Introduction

Virtually all aspects of human endeavour entail the use of money either self- generated or borrowed. Money enhances capital accumulation with tremendous cyclical rebound on economic growth. In capital market, the stock in trade is money which could be raised through various instruments, under well governed rules and regulations, carefully administered and adhered to by different institutions or market operators. It is true that the rate of economic growth of any nation is inextricably linked to the sophistication of its financial market and specifically its capital market efficiency. Virile financial markets assist the nations of the world to muster needed financial resources and skills for growth and development. Equity markets in developing countries until the mid-1980s generally suffered from the classical defects of bank dominated economies that are shortage of equity capital, lack of liquidity, absence of foreign institutional investors, and lack of investor's confidence in the stock market (Adebiyi, 2005). Financial market and its sub-unit, capital market are constituted when ever participants, with the aid of infrastructures, technology and other devices to facilitate the mobilization and channeling of funds into productive investment. The importance of capital market lies in its financial intermediation capacity to link the deficit sector with the surplus sector of the economy. The absence of such capacity robs the economy of investment and production of goods and services for societal advancement. Funds could thereby be idle at one end, while being sought at the other end in pursuit of socio-economic growth and development (Akinbohungbe, 1996).

The knowledge that capital market can make a wealthy nation and wealth people is the concept and believe this paper portrays. Universally, capital markets are primarily created to provide avenues for effective mobilization of idle funds from surplus economic units and channeled into deficit units for long-term investment purposes. The suppliers of funds are basically individuals and corporate bodies as government rarely supply funds to the market. The deficit units by contrast consist only of corporate bodies and government. In other words, individuals (households) who are major suppliers of funds to the market are absent in the category of fund users. This is because conventionally, individuals cannot access the capital market for funds. Moreover, capital markets through secondary arms, provide opportunities for the purchase and sale of existing securities among investors thereby encouraging the populace to invest in securities and fostering economic growth.

The funding requirements of corporate bodies and governments are often colossal, sometimes running into billions of naira. It is therefore, usually difficult for these bodies to meet such funding requirements solely from internal sources,

hence they often look up to the capital market. This is because the capital market is the ideal source as it enables corporate entities and government to pool monies from a large number of people and institutions. Thus the socio-economic function of the capital market is well established. It does not only encourage and mobilize savings but also efficiently allocates such savings to areas of need (Ekineh, 1996).

The Nigeria capital market is categorized into primary and secondary markets. New securities are issued in the primary market, and companies issuing these securities receive the proceeds for the sale. The secondary market provides a forum for the sale of securities by one investor to another investor. Thus, the efficient functioning of the market paves way for the primary market by making investors more willing to purchase new securities in anticipation of selling such in the secondary market. These securities are the major instrument used to raise funds at the capital market.

The institutional framework through which the capital market function in Nigeria include; the Nigerian securities and exchange commission (NSEC), the Nigerian stock exchange (NSE), stock brokers and investors. The main objective of establishing the Nigerian capital market is to mobilize savings from numerous economic units for economic growth and development, provide adequate liquidity to investors, broaden the ownership base of assets as well as the creation of a buoyant private sector, provide alternative source of funds for government, others are to encourage more efficient allocation of new investments through the price mechanism, encourage more efficient allocation of a given amount of tangible wealth through changes in the composition and ownership of wealth, create a built-in efficiency in the operations and allocation in the financial system to ensure optimal utilization of resources, and promote rapid capital formation.

In the light of the above objectives, the point of departure of this study is to evaluate the level of development and efficiency of the Nigeria capital market and how it has impacted on Nigeria's economic growth and development in the face of capital market reforms. For purposes of logical sequence and presentation, the paper is divided into introduction, development of the Nigerian capita markets, theoretical underpinning, appraisal of the capital market in Nigeria, methodology of the study, data analysis and discussion of results, regression result and analysis, conclusion and recommendations.

### 1.1 Development of the Nigeria Capital Market

The development of the Nigeria Capital Market dates back to the late 1950s when the Federal Government through its ministry of industries set up the Barback committee to advise it on ways and mean of setting up a stock market. Prior to independence, financial operators in Nigeria comprised mainly of foreign owned commercial banks that provided short-term commercial trade credits for the overseas companies with offices in Nigeria (Nwankwo, 1991). Their capital balances were invested abroad in the London stock Exchange. Thus, the Nigeria Government in an attempt to accelerate economic growth embarked on the development of the capital market. This is to provide local opportunities for borrowing and lending of long-term capital by the public and private sectors as well as an opportunity for foreign-based companies to offer their shares to the local investors and provide avenues for the expatriate companies to invest surplus funds.

Based on the report of the Barback Committee the Lagos Stock Exchange was set up in 1959. With the enactment of the Lagos Stock Exchange Act 1961, it commenced business in June, 1961 and assumed the major activities of the stock market by providing facilities for the public to trade in shares and stocks, maintaining fair prices through stock-jobbing and restricting the business to its members. The Lagos stock exchange was renamed the Nigeria Stock Exchange in 1977, with the following objectives;

- 1) To provide facilities to the public in Nigeria for the purchase and sale of funds, stocks and shares of any kind and for the investment of money.
- 2) To regulate the dealings of members interest and those of their clients.
- 3) To control the granting of a quotation on the stock exchange in respect of funds, stocks and shares or any company, government, municipality local authority or other corporate body.
- 4) To promote, support, or propose legislative or other measures affecting the aforementioned objectives.

According to its Memorandum and Articles of Association, the Exchange is incorporated as a private non-profit organization limited by guarantee to undertake three basic functions, which include;

- 1) Provide trading facilities for dealing in securities listed on it.
- 2) Oversee activities relating to trading in securities.
- 3) Enhance the flow of long-term capital into productive investment and ensuring fairness of prices at which quoted securities are traded.

Initially trading activities commenced with two Federal Government Development Stocks, one preference share and three domestic equities. The market grew slowly during the period with only six equities at the end of 1966 compared

with three in 1961. Government stocks comprised the bulk of the listing with 19 of such securities quoted on the Exchange in 1966 compared with six at the end of 1961. (Nnanna, Englama and Odoko, 2004). Prior to 1972 when the indigenization exercise took off, activities on the Nigeria stock exchange were low. That was true both in terms of the value and volume of transactions. For instance, the value of transactions grew from N1.49million in 1961 to N16.6million in 1971. Similarly, the volume of transactions grew from 334 to 634 over the same period. Though the bulk of the transactions were in government securities, which were mainly development loan stock through which the government raised money for the execution of its development plans. Accordingly, with the promulgation and implementation of the Nigeria Enterprises Promotion Decree of 1972, which its principal objectives include; promoting capital formation, savings and investment in the industrial and commercial activities of the country, the low level of activities in the stock market increased as Nigerians gained the commanding heights of the economy.

However, following the criticisms that the Nigerian stock Exchange was not responsive to the needs of local investors, especially indigenous businessmen who wished to raise capital for their businesses, the NSE, introduced the Second-Tier Securities Markets (SSM) in 1985 to provide the framework for the listing of small and medium-sized Nigeria companies on the Exchange. Six companies were listed on this segment of the stock market by 1988 and by 2002 over twenty-three companies had availed themselves of the opportunities offered by this market (Nnanna, Englama and Odoko, 2004).

The major instruments/products available in the Nigerian capital market to date include; the industrial equities otherwise referred to as ordinary shares; industrial loans such as debentures, unsecured zero coupons, preference bonds/stocks, specialized project loans/infrastructural loans, government stocks/bonds, unit trust schemes, unlisted corporate/industrial loans stock, among others. The market is currently divided in to two broad categories, namely equities and debt markets. The former are instruments or products that confer ownership rights on the investor, while the later are interest-bearing obligations with fixed or floating interest-rates. Refer to figure 1 in the appendix section.

# 2. Theoretical Underpinning

Capital market is defined as the market where medium to long-term finance can be raised (Akingbohungbe, 1996). In another exposition, Ekezie (2002) noted that capital market is the market for dealings (i.e. lending and borrowing) in longer-term loanable funds. Mbat (2001) described it as a forum through which long-term funds are made available by the surplus to the deficit economic units. It must, however, be noted that although all the surplus economic units have access to the capital market, not all the deficit economic units have the same easy access to it. The restriction on the part of the borrowers is meant to enforce the security of the funds provided by the lenders. In order to ensure that lenders are not subjected to undue risks, borrowers in the capital market need to satisfy certain basic requirement. It has very profound implication for socio-economic development of any nation. Companies can finance their operations by raising funds through issuing equity (ownership) or debenture/bond borrowed as securities. Equities have perpetual life while bond/debenture issues are structured to mature in periods of years varying from the medium to the long-term of usually between five and twenty-five years.

Capital market offers access to a variety of financial instruments that enable economic agents to pool, price, and exchange risk. Through assets with attractive yields, liquidity and risk characteristics, it encourages savings in financial form. This is very essential for government and other institutions in need of long-term funds and for suppliers of long-term funds (Nwankwo, 1991).

Based on its importance in accelerating economic growth and development, government of most nations tends to have keen interest in the performance of its capital market. The concern is for sustained confidence in the market and for a strong investors protection arrangement. Nigeria Securities and Exchange Commission (NSEC) is the government agency responsible for developing and regulating the Nigeria capital market. It was created by Act No. 71 of 1979 and re-acted as Securities and Exchange Commission Decree No. 29 of 1988. The NSEC purses its objectives by registering all market operators based on capital adequacy, competence and solvency as criteria.

Economic growth is generally agreed to indicate development of an economy, because it transforms a country from a five percent saver to a fifteen percent saver. Thus, it is argued that for capital market to contribute to economic growth and development in Nigeria, it must operate efficiently. Most often, where the market operate efficiently, confidence will be generated in the minds of the public and investors will be willing to part with hard earned funds and invest them in securities with the hope that in future they will recoup their investment.

The theoretical explanation on the nexus between capital market and economic growth is further expanciated using Efficient Market Hypothesis (EMH) developed by Fama in 1965. According to EMH, financial markets are efficient or prices on traded assets that have already reflected all known information and therefore are unbiased because they represent the collective beliefs of all investors about future prospects. Previous test of the EMH have relied on long-range dependence of equity returns (Lo, 1991). It shows that past information has been found to be useful in improving predictive accuracy. This assertion tends to invalidate the EMH in most developing countries. Equity prices

would tend to exhibit long memory or long range dependence, because of the narrowness of their market arising from immature regulatory and institutional arrangement (Nagayasu, 2003 and Nyong, 2003). Note that, where the market is highly and unreasonably speculative, investors will be discouraged from parting with their funds for fear of incurring financial losses. In situations like the one mentioned above, has detrimental effect on economic growth of any country, meaning investors will refuse to invest in financial assets. The implication is that companies cannot raise additional capital for expansion. Thus, it suffices to say that efficiency of the capital market is a necessary condition for growth and development in Nigeria.

Levine and Servos (1996) postulated a strong positive relationship between stock market development and long-run economic growth. Further studies, showed that stock market liquidity plays vital role in the process of economic growth (Mc Kinnon, 1973, and Bencivenga, et al, 1996). Though there are other scholars who share contrary views about the performance of the capital market and its attendant effect on economic growth and development of nations. Emenuga (1998) for instance believed that the stock market is illiquid and blamed the ownership structure in the Nigeria stock market. He concluded that the stock market is small and has few listed companies, low market capitalization and low volume of transactions. Ariyo and Adelegan (2005) contend that, the liberalization of capital market contributes to the growth of the Nigeria capital market, yet its impact at the macro-economy is quite negligible. In another exposition, Gabriel (2002) as enunciated by Nyong (2003) lay emphasis on the Romanian capital market and conclude that the market is inefficient and hence it has not contributed to economic growth in Romania. Which ever school of thought, either for or against capital market as a sine qua non for economic growth all depends on the particular situation the nation is passing through and the prevailing economic indices/determinants. With financial liberalization, many of the East-Asian capital markets like Singapore, Hong Kong and Bangkok have developed over time to the extent that they are presently regarded as international centres of Asia. In contrast the past years saw comparatively little change in the capital market of sub-Saharan Africa including Nigeria.

# 2.1 Appraisal of the Capital Market in Nigeria

The capital market has opened the floodgate to relatively inexpensive fund surpassing the possibility of self-financing available to indigenous enterprises. Such funds are usually used for expansion of existing businesses or to cushion the effect of inflation so that businesses may continue as going concerns. It also afford indigenous enterprises and entrepreneurs the opportunity to be introduced into the economy in general through entry into the securities market. This enables shares that haven been privately held to be offered to the general market or international market for inflow of foreign investment. The entering of an indigenous company into the capital market enhance its prestige and reputation, especially its products and credit worthiness in the eyes of the public as conferred upon it by the new status. (Bayero, 1996).

The capital markets in Nigeria create a free entry and exist for investors. It is a known fact in private company that it is not easy for an investor (shareholder) to withdraw capital invested without upsetting the company capital structure. But for public quoted company, it does work not like that. As long as an investor's broker can find a prospective investor to buy the clients' shares the process is done.

One of those important functions of the capital market is to encourage indigenous enterprises to develop its peculiar technologies through accessibility to funds and expertise through international connection. This it has achieved tremendously. Moreover, most of the enterprises benefited from the implementation of the Nigeria Enterprises Promotion Acts and the privatization policies through the market. Both policies promoted indigenous enterprises, which are the main engine of economic growth and development in an economy.

Despites the capital market laudable performance and benefits, it is still beclouded with some weakness in Nigeria. The bureaucratic system of the Securities and Exchange Commission is a hindrance to smooth processing of application submitted to it. The private sector to which most enterprises belong is not used to the "leap and tumble" system of the public sector, but operates by leaps and bounds. The fee charge by the exchange are unreasonably high and constitute a great burden on enterprises/companies for whose sake the Second tier Securities Market (SSM) was established in 1985. If it is realized that the engine of economic growth and development in Nigeria rest in this sector, which is endowed with the capacity to create jobs for the unemployed, then the charges should be moderate and not appear to be punitive. Likewise the cost of hiring the services of stock brokers, registrars and issuing houses in the capital market is getting higher every now and then, but their efficiency is not commensurate to the high cost, this gives room for complaints and mistrust. The imposition of all forms of taxes by the three tiers of government on companies and businesses is especially discouraging, and add to the number of weakness that undermine the capital market as the engine room and pivot for economic growth and development in Nigeria.

# 3. Methodology of the Study

The objective of this study is to examine the impact of capital market efficiency on the economic growth and development in Nigeria. The operational methodology adopted is the multiple regression analysis with Ordinary Least

squares (OLS) econometric techniques and a time series secondary data from 1961 to 2004, which were obtained from various sources. The Ordinary Least Squares Theorem, supported by Koutsoyiannis (1985), Wannocott and Wonnocott (1972) and Nyong (1993) as the Best Linear Unbiased Estimator (BLUE).

### 3.1 Model Specification

The efficiency of the capital market is determine by a number of factors, which include how financial assets are priced, such as interest rates and market price for risk, transactions in buying and selling of securities (liquidity), efficient information system, size of the stock market that is market capitalization, number of listed equities and the level of money supply in the economy. The interrelationship of these factors ensures the efficiency of the capital market to mobilize and allocate resources for economic growth.

The functional form on which our econometric model is based is given as;

$$Y = F(x_1, x_2, x_3, x_4, x_5)$$
 (1)

Where Y is economic growth or GDP = dependent variables

x<sub>1</sub> to x<sub>5</sub> are independent variables or macro-economic factors

F represents the functional notation.

This can be specifically stated as;

$$ECG = F (GDS, ITR, MC, M_2, TTR)$$
 (2)

Note that the proxy for economic growth (ECG) is GDP, hence it will be use for the study instead. The OLS linear regression equation based on the above functional relation is;

$$Y = a_0 + a_1 x_1 + a_2 x_2 + a_3 x_3 + a_4 x_4 + a_5 x_5 + U$$
(3)

$$GDP = a_0 + a_1GDS + a_2ITR + a_3MC + a_4M_2 + a_5TTR + U$$
(4)

Where;

GDP = Gross Domestic Product (proxy for economic growth)

GDS = Government Development Stock

ITR = Interest Rate or determinant of share prices

MC = Market Capitalization

 $M_2$  = Broad Money Supply

TTR = Total Market Transaction

a = Regression Constant

U = Stochastic Error Term

Transforming equation (4) to the natural logarithm we obtain;

$$LogGDP = loga_0 + a_1 logGDS + a_2 ITR + a_3 logMC + a_4 logM_2 + a_5 TTR + U$$
(5)

The following are apriori expectations of the coefficient of the model:=  $a_1a_2 < 0$ ,  $a_3a_5 > 0$ ,  $a_4>0$ .

### 4. Data Analysis and Discussion of Results

Table 4.1 shows the market capitalization of six emerging economies. That is Nigeria, Malaysia, Indonesia, Korea, Singapore and South Africa.

The market capitalization of Nigeria during the years under review had the highest increase of 2.7b in 1994 only to drop to 2.0b in 1995. Malaysia had enjoyed a steady increase from 1990 to 1993 only for the figure of its market capitalization to drop in 1994 (199.3b) and later increased in 1995 to 222.7b. Indonesia also had the same experience as it can be seen in the table. Its figure only decrease in 1991 (6.8b), apart from that, other years showed steady increase. The market capitalization of Korea was always oscillating during this period, yet it showed a reasonable difference between 1990 (110.6b), and 1995 (182.0b). Singapore equally maintained a meaningful increase in its market capitalization over the years as depicted in the table. South Africa figure only drop in 1992 (103.56b) other years before and after 1992 showed increase in market capitalization. On the whole South Africa is the most viable in terms of market capitalization when compared to the other five emerging economies. Nigeria had the lowest market capitalization during the period under review when compared to the other countries.

In order to measure the size of the stock market it is necessary to use the number of listed companies. Therefore, table 2 shows the number of domestic companies listed or quoted in five different emerging stock markets.

It can be observed that all the five economies had progressive turnover, based on the increase in the number of quoted companies each year. A careful look at the table shows that Korea had the highest number of listed companies during the period under review. This is followed by Malaysia, while Singapore and Indonesia take their turn. In all Nigeria had always taken the bottom and the least when compared to other countries during the period. In 1990 (131), 1991 (142), 1992 (153), 1993 (174), 1994 (177) and in 1995 (181). Though the figures were increasing each year, but was less than the figures for the other four countries listed in the stock market. This means that, the number of listed companies in the capital market in Nigeria is quite few. The private sector should be encouraged to invest more on stock.

Table 4.3 shows the empirical data on which part of the analysis of this paper is based. As can be observed policy regimes is presented in column 1, government stock column 2, industrial loans column 3, equities and SSM column 4, and economic growth rate column 5. These are all disaggregated number of quoted securities and the total annual growth rate of the securities for the period from 1961 to 2004, which is exactly 33 years. The analysis showed that market reforms as contained in the policy regimes of the Indigenization Decree, 1972, the Structural Adjustment programme (SAP), 1986, the Second tier Securities Market (SSM) and the new industrial policy impacted positively on the growth of the capital market. Though, the rate of growth had been quite marginal. However, the policy reforms of Nigeria Investment Promotion Commission Act, 1995 and Foreign Exchange (Miscellaneous) Decree, 1995 which operate till 2004 did not have significant impact on the growth of the capital market as the period was characterized by sluggish or slow growth rate. Some years had negative growth rates. Such as in 1987 (-0.54), 1997 (-4.35), 2000 (-2.99) and 2002 (-4.98), and the average growth rate for quoted or listed securities for the period was 17.0.

# 4.1 Regression Result and Analysis

Table 4.4 shows the regression equation for capital market efficiency and economic growth, and the regression result. Observation shows that the result is consistent with economic apriori expectation. The co-efficient of the constant term is 11.9989, which is positive and statically significant. The coefficient of the log of money supply (LNMS) is negative. This implies that the Nigerian economy has low absorptive capacity and hence cannot absorb financial capital productively. The result confirms Ndebbio (2006) earlier assertion that Nigeria and some other under developed countries have low absorptive capacity. The results of the log of market capitalization (LNMC) and total transactions in the stock market (LNTTR) assume positive sign. This means that a large capital market size and with the simplicity in buying and selling of securities, has the potential to enhance growth.

Furthermore, the coefficient of log of government development stock (LNGDS) indicates negative. This implies fund raised by the government in capital market are sometimes spent on unproductive sector that does not enhance economic growth. Like the case where office holders in government swindle public fund for their private use. The determinant of share prices, interest rate (ITR) is positive from the result above. It invariables means that the Nigeria capital market depends on the prevailing situation. For instance if interest rate is high, the demand for shares will be low and speculative investors are likely to buy more of the shares, only to sell them when share prices are high as interest rate falls. The profit they make in future induces economic growth.

Based on the results of the independent variables as explained by the dependent variable; it can conclusively be said that market capitalization and interest rate have positive impact on growth while government stock retards growth. But the three variables are statistically significant. On the other hand total transactions and money supply variables are not statistically significant. The coefficient of multiple determinations ( $R^2$ ) of 0.99 or 99 percent variation in the observed behaviour in the dependent variable is jointly explained by the independent variables. The remaining 0.01 or one percent is captured by the stochastic error term. Thus the high  $R^2$  indicates that the model is a good fit. The F-statistics of 432.5 indicates that it is statistically significant. A cursory examination of the Durbin-Watson (DW=1.2) statistics result shows that the test is inconclusive, hence it can not be concluded with certainty that auto correlation exist or not.

### 5. Conclusion

This study reveals that there is a linkage between capital market efficiency and economic growth and development, vis-à-vis market capitalization, money supply, total transaction in stock, government development stock and interest rate. As it can be observed market capitalization, government development stock and interest rate are important capital market variables that are capable of influencing economic growth in Nigeria. This is because, a large capital market widen the prospect for growth and also government development stock if well invested and not misappropriated to un-lucrative sector that does not have the potentials of growth inducement. Further more, interest rate acts as a function of what happens in the capital market. Like-wise money supply and total transaction in stock are potential growth inducing macro-economic variables that are capable of enhancing economic growth in Nigeria. But the study clearly shows that Nigeria economy has low absorptive capacity, that is financial capital cannot be absorbed productively to stimulate economic growth and development. Moreover, the market is characterized by illiquidity and excessive government regulations.

### 6. Recommendations

- 1) The private sector should be encouraged to invest in capital market. This can be done through educating and enlightening the public, using knowledgeable people and experts or professionals that are competent in stock market dealings.
- 2) The illiquidity status of the capital market should be improved to make it more viable for investors to invest, and such overtures can contribute to economic growth. This can be achieved through complete reversal of the ownership structure.
- 3) The funds raised by government in the form of government securities in the capital market should be put into productive sectors of the economy that will necessitate to growth in all facets of the economy.

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Table 4.1. Market Capitalization 1990 – 1995 (in Billion Dollars)

Country	1990	1991	1992	1993	1994	1995
Nigeria	1.4	1.9	1.2	1.0	2.7	2.0
Malaysia	48.6	56.6	94.0	220.3	199.3	222.7
Indonesia	8.1	6.8	12.0	33.0	47.2	66.6
Korea	110.6	96.4	107.5	138.4	191.8	182.0
Singapore	34.3	47.6	48.8	132.7	134.5	148.0
South Africa	137.5	168.5	103.5	171.9	225.0	280.5

Sources: International Finance Corporation, 1996.

World economic and Finance Surveys "Global"

Table 4.2. Domestic companies listed in stock market

Country	1990	1991	1992	1993	1994	1995
Nigeria	131	142	153	174	177	181
Malaysia	282	321	369	410	478	529
Indonesia	125	141	155	174	216	238
Korea	669	686	688	693	699	721
Singapore	150	166	163	178	240	212

Source: International Finance Corporation, 1996.

Table 4.3. The Number of Quoted Securities in the Nigeria Capital Market and their Growth Rate (1961 – 2004)

Year	Government Stock	Industrial Loans	Equity Including (SSM)	Total	Growth Rate
1961	6	0	3	9	
1965	17	5	6	28	211.1
1971	32	6	14	52	85.7
1973	38	8	25	71	36.5
1978	49	11	42	102	43.7
1980	54	12	91	157	53.0
1981	56	14	93	163	3.82
1982	57	18	93	168	2.07
1983	61	25	92	178	5.95
1984	56	27	92	175	1.69
1985	57	28	96	181	3.43
1986	58	29	99	186	2.76
1987	54	31	100	185	-0.54
1988	51	35	102	188	1.62
1989	47	40	111	198	5.32
1990	43	43	131	217	9.6
1991	40	57	142	239	10.14
1992	36	62	153	251	5.02
1993	37	71	174	272	8.37
1994	35	64	177	276	1.47
1995	28	67	181	276	0.0
1996	24	69	183	276	0.0
1997	22	60	182	264	-4.35
1998	19	59	186	264	0.0
1999	15	58	195	268	1.52
2000	12	53	195	260	-2.99
2001	11	56	194	261	0.38
2002	10	53	195	248	-4.98
2003	9	56	200	265	6.9
2004	12	58	207	277	4.5
Average 1961-2004					17.0
	1961 1965 1971 1973 1978 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 Average	Stock   1961   6   1965   17   1971   32   1973   38   1978   49   1980   54   1981   56   1982   57   1983   61   1984   56   1985   57   1986   58   1987   54   1988   51   1989   47   1990   43   1991   40   1992   36   1993   37   1994   35   1995   28   1996   24   1997   22   1998   19   1999   15   2000   12   2001   11   2002   10   2003   9   2004   12   Average	Stock         Loans           1961         6         0           1965         17         5           1971         32         6           1973         38         8           1978         49         11           1980         54         12           1981         56         14           1982         57         18           1983         61         25           1984         56         27           1985         57         28           1986         58         29           1987         54         31           1988         51         35           1989         47         40           1990         43         43           1991         40         57           1992         36         62           1993         37         71           1994         35         64           1995         28         67           1996         24         69           1997         22         60           1998         19         59           1999         <	Stock         Loans         Including (SSM)           1961         6         0         3           1965         17         5         6           1971         32         6         14           1973         38         8         25           1978         49         11         42           1980         54         12         91           1981         56         14         93           1982         57         18         93           1983         61         25         92           1984         56         27         92           1985         57         28         96           1986         58         29         99           1987         54         31         100           1988         51         35         102           1989         47         40         111           1990         43         43         131           1991         40         57         142           1992         36         62         153           1993         37         71         174           1994 </td <td>Stock         Loans (SSM)         Including (SSM)           1961         6         0         3         9           1965         17         5         6         28           1971         32         6         14         52           1973         38         8         25         71           1978         49         11         42         102           1980         54         12         91         157           1981         56         14         93         163           1982         57         18         93         168           1983         61         25         92         178           1984         56         27         92         175           1985         57         28         96         181           1986         58         29         99         186           1987         54         31         100         185           1988         51         35         102         188           1989         47         40         111         198           1990         43         43         131         217     <!--</td--></td>	Stock         Loans (SSM)         Including (SSM)           1961         6         0         3         9           1965         17         5         6         28           1971         32         6         14         52           1973         38         8         25         71           1978         49         11         42         102           1980         54         12         91         157           1981         56         14         93         163           1982         57         18         93         168           1983         61         25         92         178           1984         56         27         92         175           1985         57         28         96         181           1986         58         29         99         186           1987         54         31         100         185           1988         51         35         102         188           1989         47         40         111         198           1990         43         43         131         217 </td

Note: From 1961 – 1979, selected years were used, while from 1980 to 2004 all the years were included.

Sources: Nigerian Stock Exchange Fact Book, 2004.

Annual Reports and Accounts of various issues.

<sup>\*</sup> SSM = Second Tier Securities Market

Table 4.4. Estimates of Capital Market Efficiency and Economic Growth (variables: LNGDP)

Variables	Estimated Co-efficient	T-Statistics
С	11.9989	10.32085
LNM2	-0.182107	-1.577428
LNMC	0.514899	8.031631
LNGDS	-0.999489	-7.050558
LNTTR	0.019242	0.342325
ITR	0.102956	6.944213
Adjusted R2	0.986288	
F-Statistics	4325742	
Durbin-Watson	1.203013	

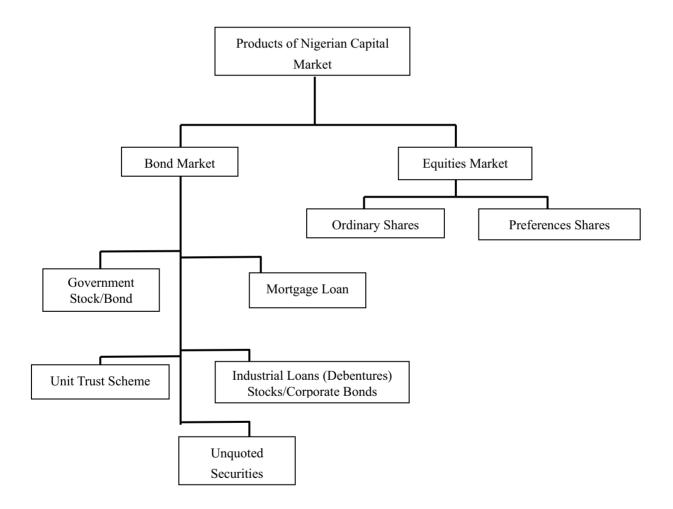


Figure 1. Instruments of the Nigerian Capital Market

Source: Nnanna, Englama and Odoko, 2004.