Article

Equities-Capital Market Performance Modelling (Ecmp) in Nigeria International

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Abstract: The work examined equities market operations and capital market performance in Nigeria. It covered the periods 1990 to 2021. Equities market operations were captured by equities market capitalization (ecap), number of listed equities (nole), number of traded equities (note) and value of traded equities (vote). The performance of the capital market on the other hand was encapsulated using market capitalization of the entire market. Data on these variables were obtained from the Central Bank of Nigeria (CBN) and Securities and Exchange Commission (SEC) statistical bulletins. The Autoregressive Distributed Lag (ARDL) approach to cointegration analysis technique aided by the e-views software was used to analyze the data. The result of the study revealed the existence of long-run relationship between equities market operations and performance of the capital market. This led to the conclusion that equities market operations influences capital market performance in Nigeria. Therefore, it was recommended that there is need for increased awareness on the activities of the equities market in Nigeria, promotion of market transparency, confidence in the system and regulatory stability for improved efficiency and effectiveness.

Keywords: equities market, operations, capital performance

1. Introduction

The financial system is a conglomerate of various financial markets, instruments, operators and institutions that interact within an economy and the rest of the world to provide financial services such as resource mobilization and allocation, financial intermediation and facilitation of foreign exchange transactions to enhance foreign trade (Nzeko & Odunze, 2016). An effective and efficient financial system is a sine qua non for economic progress. This is because as an economy grows and develops, production processes, capacity and capital formations among other economic growth variables also move in same direction thereby making financial transactions more complex/demanding. These developments to a larger extent call for an effective and efficient financial

system/markets. Financial markets are subset of the financial system that consist of complex arrangement of institutions, mechanisms and structures forfinancial intermediation purposes. The market mechanism enables the transfer of financial resources from ultimate lenders to ultimate borrowers such as individuals, corporate bodies or government for investment purposes. Thus, Udo, Nwezeaku and Kalu (2021), observed that financial markets brings together savers and investors; and by the interaction of these two groups in an economy, the accumulated aggregate savings are channeled into viable and most desirable investment for the growth and development of an economy.

In developed and some developing economies, various segments of the financial markets exist and each deals with different type of instruments in terms of the instrument maturity and the asset backing it. This is coupled with the fact that different markets serve different types of customers or operate in different parts of an economy. The essence of which is to ensure efficient transfer of funds from savers to ultimate users of mobilized financial resources for productive and investment needs. In Nigeria to be precise, financial markets are popularly classified into the money and capital market. The former encompasses savers and users of funds in the short term, while the latter involves savers of funds who can afford to lend their savings for a longer period and users of funds who are in need of long-term funds. According to Ahuja (2016), one of the reasons why some countries are more developedthan others is the ability of these countries to come up with policies, measures and arrangements that narrows the gap between savings and investment, and widen the gap between consumption and savings. There is no gain saying the fact that one way to encourage savings, investments and the narrowing of savings-investment gap of a country is the existence of a functional financial markets, especially the capital market.

Furthermore, it is pertinent to note that in financial markets financial assets like shares, bonds, debentures, derivatives, etc are traded. Jideofor (2013) opined that a financial market encapsulates the equities and bond markets. The segment of the financial market where variable income securities like shares are bought and sold is referred to as the equities market, while fixed income securities are traded in the bond market. Chen and Scott (2020) observed that the equity market is market in which shares of companies are traded, either through exchanges or over-the-counter markets. They further asserted that the market is one of the most vital areas of a market economy, that gives companies access to capital to grow their business and investors a piece of ownership in a company with the potential to realize gains in their investment based on the company's future performance. In the equities market, subscription must be fully paid for before allotments are made to subscribers and immediately gives the latter access to part ownership upon allotments. A unique benefit of the equities to corporate entities is the provision of long-term, non-debt financial capital (Ohiomu & Enabulu, 2011). Also, through the issuance of equity securities, companies acquire perpetual capital for development. In addition, through the provision of equity capital, companies avoid over-reliance on debt financing, thereby improving corporate debt-equity ratio. In the same vein, the bond market also provides a platform for corporate entities and the government to raise long-term capital for financing new projects, expanding and modernizing industrial/commercial concerns.

It is through financial intermediation process that the market serves as a catalyst for growth and development.

Indices such as market capitalization, number of listed equities, number of traded equities and value of traded equities undoubtably are good measures of the operations of the equities market. Therefore, the state and place of a country's equities market can be compared and contrasted using the mentioned variables. Thus, the strength of a country's equities market can be measured using these indicators.

Given the popularity of the equities market, the question that could readily come to mind will be; what impact does the equities market have on the performance of the capital market in Nigeria? A painstaking look shows that there is dearth of empirical studies on this segment of the capital market. Hence, Popoola, Ejemeyovwi, Alege, Adu and Onabote (2017), and Udo, Nwezeaku and Kanu, (2021), pointed out that studies on the Nigerian capital market abound in literature but a careful look shows that the emphasis has mainly been on the operations of the capital market and performance of the Nigerian economy. Thus, there have been little or no attention on the effect of the various segment of the stock market on the performance of the capital market in Nigeria. This study was designed to fill the gap identified above.

2. Literature Review

The capital market is a branch of the financial market responsible for medium- and long-term financial intermediation between savers and users of funds in an economy. It is a market for long term financial instruments such as government securities, corporate bonds, corporate shares and mortgage loans. According to Danbazu and Abdullahi (2016), the capital market is the section of the financial market that is responsible for mobilization and allocation of funds from surplus units of an economy to deficit units of an economy on a medium to long term basis. The institution offers access to a variety of financial instruments that enables economic agents to pool, price and exchange risk. This is in recognition of the fact that all the surplus units have access to the capital market, which is not same with all the deficit economic units. Nwezeaku (2008), observed that essentially, the capital market is a section of the financial system that is saddled with the mobilization and allocation of financial resources from the surplus to the deficit economic units on a long-term basis. The market serves the purpose of channeling long-term funds from lenders to borrowers for investment/productive purposes. Ekezie (2002), noted that the capital market is a market for dealings (lending and borrowing) in long term loanable funds. It is a framework that enables economic agents to pool, price and exchange risks via financial assets with attractive liquidity, risk and returns features. A well-developed financial system mobilizes and pools savings, facilitates the exchange of goods and services, and allows the diversification and management of risk. These functions influence savings and investment decisions as well as technological innovations, and hence economic growth. Based on their importance in accelerating economic growth and development, government of most nations tend to have keen interest in the performance of their capital markets.

So many capital market performance indicators exist but those used by International Finance Corporation (IFC) are: the ratio of stock market capitalization to GDP, the ratio of total value of shares traded to GDP and the ratio of total value of shares traded to market capitalization. According to Adjasi and Biekpe (2015), the ratio of stock market capitalization to GDP is a measure of both stock market's abilities to allocate capital to provide significant opportunities for risk diversification for investors. The ratio of total value of shares traded to GDP is a measure of the ability to trade economically significant positions on the exchange (indicator of market liquidity). The ratio of total value of shares traded to market capitalization is an indicator of liquidity of assets traded on the market, not adjusted for the size of the market relative to the economy. The average of the above three

ratios is compared to get a weighted index of market development. However, there are absolute indicators of capital market performance. Babolola and Adegbite (2011) used number of listed securities, number of listed companies, size of the capital market (market capitalization) and all-share index in evaluating capital market performance. This study also adopted this categorization.

The capital market is a broad umbrella of different sub-markets. Notable among the sub-markets is the equities and bond market. According to Chen and Scott (2020), an equity market is a market in which shares of companies are traded, either through exchanges or over-the-counter markets. Also known as the stock market or variable income market, the equities market is one of the most vital areas of a market economy, that gives companies access to capital to grow their business, and investors a piece of ownership in a company with the potential to realize gains in their investment based on the company's future performance. As such, this market is the aggregation of buyers and sellers of shares. More technically, the equities market entails an arrangement or mechanism that allows sellers and buyers to deal in equity or shares in the same platform (Okoroafor, 2017). It is important to note that a viable equity market can serve to make the financial system more competitive and efficient. In the absence of financial markets, companies have to rely on internal finance like retained earnings. Large and well-established entities are in a privileged position because they can make investments from retained earnings and bank borrowings, while new companies do not have easy access to finance. Thus, holders of the instrument (equity) are entitled to attend AGMs (Annual General Meetings) and can vote to elect management of their companies. Unlike debt instruments, repayment of principal occurs only if the instrument (shares) is traded through the secondary market.

The equities market in Nigeria has grown in terms of number of listed securities, transactions and market capitalization in the Nigeria Stock Exchange. Accordingly, securities listed on the Nigeria Stock Exchange has grown from 3 in 1961 to 163 in 2020. Number of deals (transactions) in the equities market also grew from 20,189 in 1987 to 1,155,019 in 2020. Similarly, the value of these deals in the market within the same period grew from N0.62 billion in 1988 to N1,028.17 billion in 2020. Market capitalization of the varied income market in Nigeria also rose from N1.9 billion in 1981 to N21,063 billion in 2020 (CBN, 2020). More so, return on equities is by way of price appreciation and dividend payment. According to Kehinde (2023), in terms of return on investment globally, the Nigerian equity bourse had in the past three years posted positive returns. He noted that equities trading at the Nigerian exchange Limited (NGX) closed the year 2022 on a positive note despite the myriad of challenges in the economic landscape of the country, ranging from a rise in the inflation rate to a hike in the interest rate, among others. As at 30th Dec. 2022, the nation's equities market finished on a bullish run as ASI appreciated by 19.98% with 51,251.06 index points. Amidst investor's increased buying pressure, especially on blue-chip stocks, the market capitalization added #5.619 trillion to settle at #27,915 trillion as against the year opening of #22.296 trillion. With a 19.99% increase in the return on investment, the market was rated the 4th best performing in the world, which tracks the performance of roughly 3000 stocks in 48 developed and emerging market countries. The market had in the past three years posted positive returns, the biggest being in 2020 when it yielded over 50% as the best-performing stock index in the world, according to Bloomberg ranking. Liquid equity markets make investment less risky and more attractive because they allow savers to acquire an asset-equity and to sell such quickly and cheaply when in need of funds or intends to alter their portfolios. In the same vein, corporations enjoy permanent access to capital raised through equity issues. The equities market is of the most vital segment of market economy that grants companies access to capital to grow their business and investors ownership rights in a company with potentials to realize gains from their investments based on company's performance.

3. Theoretical Review

Amidst notable related theories of this work such as the capital asset pricing model (CAPM), the arbitrage pricing theory (apt), financial market theory of development, information asymmetry theory, mckinnon-shaw hypothesis, etc; the theoretical framework of this study is the efficient market hypothesis (EMH). The proponents of this theory includes Kendall (1953), Roberts (1959), Osborne (1959) and Rayner and Little (1966), etc. The findings of these experts have now come to be known as the efficient market hypothesis. The proponents of this theory believe that in an efficient market, security prices adjust so quickly to new information that they fully reflect available information about the security and that changes in security prices are independent since they have random movements. Thus, this theory states that the price seen on an asset today is its true value, reflecting any data that could drive its price up or down. The efficient market hypothesis has three versions: weak form, semi-strong form and strong form.

The weak form of the efficient market hypothesis is credited to the likes of Fama (1965) who did extensive work in this area. Proponents of this version of the theory believe that current stock prices reflect all information available on past stock market prices. Therefore, technical analysis cannot help investors. However, under this version, fundamental analysis can be used to find undervalued and overvalued stocks. Reviewing business financial statements can also boost an investor's chance under this version of the theory.

The semi-strong form proponents believed that current stock market prices reflect all available information. Hence, neither technical nor fundamental analyses will make any difference in investment results under this theory, and only finding out information that the public cannot access will elevate an investor's chance above anyone else's.

The strong version of the efficient market hypothesis takes a hard line on predicting the market, thereby stating that nothing can improve an investor's chances, including information not publicly available. This is because proponents of this theory believe that the market price of an asset reflects all possible information about the asset without any exception. That is, historical, public and insider information; that even insiders (management staff) of a company cannot be in an advantaged position in predicting the price of the company's shares. This is the zenith of an efficient market and there has been endless debates on the existence of such a market (Akujuobi, 2010).

The version of the efficient market theory (hypothesis) upon which this work is based is the weak form version. This is because given the limitations of the Nigerian stock market in terms of market efficiency, the semi-strong and strong versions of the theory are not applicable in the Nigerian market. Consequently, past information about the operational style of a company, its drive and policies towards profit maximization, sensitivity to government policies and ability to absolve internal and external shocks no doubt determines how the public will rank a company and this also determines the demand and supply of the shares of such a company. This ultimately reflects on the price of the shares of such a firm. This underlines the fact that given the structural rigidities associated with the Nigerian market, the weak form version of EMH is the best bet for the market. This has also been empirically proven (Olowe, 1999; & Mikailu and Sanda, 2007).

4. Empirical Literature Review

Udo, Nwezeaku and Kanu (2021) examined the effect of capital market development on the economic growth of Nigeria using data on real gross domestic product as a proxy for economic growth while capital market variables constituted the independent variables. This includes market capitalization, all-share index, number of listed securities and the number of listed companies. The study adopted an ex-post-facto research design which utilized secondary data for the period 1983 – 2016. While an Augmented Dickey-Fuller unit root test was used for preliminary analysis, an Autoregressive Distributed Lag (ARDL) was used for the model estimation. A combination of ARDL bounds test for co-integration, ARDL short and long run error correction models were used for estimation. Findings indicated that the number of listed securities and all-share index maintained a significant relationship with economic growth in Nigeria both in the short and long runs.

Ibrahim and Mohammed (2020), examined the impact of the Nigerian capital market on the growth of the banking sector for a 20 – year period from 1998 – 2017. Time series econometric method of correlation matrix and multiple regression analysis was employed for the analysis. The study measured the relationship between capital market developments and growth of the banking sector. Market capitalization and all-share index were used as proxy for growth in the banking sector. The analysis showed that developments in the Nigerian capital market impact positively on the growth of the banking sector over the period of the study. The result thus implies that an increase in stock market capitalization instantaneously increases total bank assets in Nigeria by 0.06 percent and all-share index was found to have a direct relationship with total bank assets; implying that a one percent increase in all-share index would lead to a 0.11 percent increase in total bank assets and vice versa.

Ngo and Lee (2019) empirically investigated the causal relationship between banking sector efficiency and capital market development in 86 countries between 2006 and 2011. They adopted a two-state framework. Data Envelopment Analysis (DEA) with the use of financial ratios was used to arrive at efficiency scores of the banks in the first stage. Thereafter, these efficiency scores were linked with the development level of the capital markets of the corresponding country in the second stage using the generalized method of moments in a simultaneous equations model. Findings revealed that banking systems around the world were still inefficient, suggesting that it would take time for the global banking system to recover after the global financial crisis of 2007/08. More importantly, the findings demonstrated that the larger the capital market is, the less efficient its banking system would be. In contrast, banking efficiency can positively influence the development of the capital market.

Naceur and Ghazouani (2017) investigated the impact of stock market and banking sector development on economic growth in the Middle East and North African (MENA) region for the period 1979 – 2013. In the study, they included oil price among the control variables to capture the effect of the oil sector on the region's economic activities, which is dominated by key oil-exporting countries including some countries that are members of OPEC; such as Iran, Kuwait and Saudi Arabia. It was discovered that the influence of capital market performance in the region on economic growth to be negative if liquid liabilities is used to capture banking sector performance and is positive if banking sector development is taken by means of domestic credit to private sector. Generally, the results showed insignificant influence of capital market and banking sector performance on economic growth in the MENA region. The impact of the oil price on economic growth in the region is discovered to be considerably positive, which suggests that economic growth in the region is compelled by the oil sector.

Popoola, Ejemeyovwi, Alege, Adu and Onabote (2017) investigated the short run effect, long run effect and causal relationship between stock market and economic growth in Nigeria. The Augmented Dickey Fuller unit root test, Ordinary Least Square, Johansen Co-integration test and Pairwise ganger causality test methods were applied to the variables. The OLS result showed that all-share index has a significant but negative relationship with economic growth, the Johansen co-integration test showed that a long run relationship exists between stock market performance and economic growth in Nigeria while the Granger causality test results showed that stock market performance does not granger cause economic growth but economic growth granger causes stock market performance at 5 percent significance level.

Pradhan, Zaki, Maradana, Dash, Jayakumar and Chatterjee (2017) examined the long-run relationship between bond market development and economic growth in G-20 countries for the period 1990 – 2011. They used four sets of bond market indicators for studying this relationship. These indicators were domestic private debt securities, domestic public debt securities, international private debt securities and international public debt securities. The study used vector autoregressive (VAR) model and granger causalities techniques for data analysis; and the study found a presence of both uni-directional and bi-directional causality between bond market development and economic growth. The pol-

icy implication of the study was that the economic policies of these countries should recognize the differences in the development of bond market and economic growth in order to maintain sustainable development in the G – 20 countries.

Ogunleye and Adeyemi (2015) assessed the impact of stock market development on economic growth between 1970 and 2008. Co-integration analysis and Error Correlation Mechanism (ECM) were adopted as the estimating techniques to verify the existence of long-run relationship between stock market development and economic growth. Questionnaires were administered to access investor's confidence in the Nigerian Stock exchange and to authenticate the impact of stock market development on economic growth in the period under review. The empirical results revealed that there is existence of long-run relationship between stock market development and economic growth in Nigeria. The findings also showed that there is positive relationship between market capitalization and money supply with economic growth while total value traded, turnover ratio and gross capital formation have inverse relationship with growth. In addition, market capitalization is highly significant and appears to be the major stock market indicator.

Iqbal and Islam (2014) examined the impact of banks' greater investment in capital market on the expansion of private sector credit using bank level data for the period 1990 – 2009. Descriptive analysis showed that medium sized banks have much higher investment in capital market than the small and large banks. The investment in capital market is also higher for the 2ⁿᵈ generation commercial banks, merchant banks and brokerage houses. Both OLS and fixed effect results provided strong indication that banks' investment in the capital market crowded out private investment during 2000 – 2009. The results also showed that 1 percent increase in banks' capital market investment is associated with 0.006 percent to 0.007 percent decrease in banks' credit to the private sector. This crowding out effect is found to be more pronounced for the banks having merchant banks and brokerage wings.

Yadirichukwu and Chigbu (2014) empirically assessed the impact of capital market on economic growth in Nigeria. The study employed annual data from 1985 to 2012. They used regression analysis where multivariate and error correction was put in place to observe four formulated hypotheses. The result of the study showed that there is an inverse relationship between the stock of market capitalization ratio and long-run economic growth. It also showed a long-run relationship between value of total transaction and economic growth.

Haiss Fink and Hristoforova (2013) evaluated the relationship between the development of the aggregate bond market and real GDP in thirteen highly developed economies. The study covered a period of fifty-one (51) years, which was from 1950 – 2000. Granger causality test and co-integration approach were employed for a robust data analysis. Results revealed that there is a bi-directional causality or interdependence between the bond market and economic growth in the cases of Japan, Finland and Italy. Secondly, there is support for supply – leading causality from bond market capitalization change to real growth in the United States (USA), Great Britain, Germany, Austria, Switzerland, and to a weaker extent in the Neitherlands and Spain. Finally, the study found no support for the reverse case, i.e. demand – leading causality from real economic activity to the bond market.

The reviewed empirical literature above is awash with countless empirical studies on different sections of the capital market and economic growth and development; with little or no attention on the contribution of the equities market to the performance of the capital market; which is what this study brings to the fore in an empirical sense.

5. Methodology

The quasi experimental research design was adopted in this study. The data used were secondary data. These were data on equities market capitalization, number of listed equities, number of traded equities, values of traded equities and capital market capitalization and were obtained from the CBN and SEC Statistical bulletins.

5.1. Method of Data Analysis

The Autoregressive Distributed Lag (ARDL) approach to cointegration analysis was the method of data analysis employed in this work. This was executed using E-view econometric software.

5.2. Model Specification

This model of the study was functionally expressed as:

$$MCAP_t = F(ECAP_t, NOLE_t, NOTE_t, VOTE_t) \text{ - - - - - - - - - - - - } 1)$$

The above model was further expressed in econometric form as;

$$MCAP_t = a_0 ECAP_t, + a_2 NOLE_t, + a_3 NOTE_t, + a_4 VOTE_t + e_t \text{ - - } (2)$$

Where;

MCAP = Capital Market Capitalization

ECAP = Equities Market Capitalization

NOLE = Number of Listed Equities

NOTE = Number of Traded Equities

VOTE = Value of Traded Equities

a_0 = Constant Term

a_1 - -- a_4 = Slopes of the model

F = Functional Notation

t = Current time period

e = Error term/residual/stochastic variable

6. Estimations and Results

Logged Data on Market capitalization (mcap), equities market capitalization (ecap), number of listed equities (nole), number of traded equities (note) and value of traded equities 1990-2021

Year	mcap	Ecap	Nole	note	vote
1990	3.212188	1.082785	2.117271	4.59221	-1.1549
1991	1.363612	1.264818	2.152288	4.620303	-0.85387
1992	1.494155	1.418301	2.184691	4.689699	-0.39794
1993	1.676694	1.621176	2.240549	4.605639	-0.33724
1994	1.821514	1.78533	2.247973	4.623353	-0.10237
1995	2.256237	2.243286	2.257679	4.695035	0.252853
1996	2.456062	2.446848	2.262451	4.694509	0.840106
1997	2.450095	2.441381	2.260071	4.892529	1.009451
1998	2.419295	2.409595	2.269513	4.929066	1.13226
1999	2.477121	2.469085	2.290035	5.091685	1.148294

2000	2.674218	2.668479	2.290035	5.409113	1.449478
2001	2.821186	2.811843	2.287802	5.629561	1.760799
2002	2.883605	2.874308	2.290035	5.654991	1.773786
2003	3.133315	3.122445	2.30103	5.793579	2.056447
2004	3.324797	3.284769	2.31597	5.987894	2.349802
2005	3.462407	3.402003	2.330414	6.009427	2.405995
2006	3.709346	3.626046	2.305351	6.13607	2.670793
2007	4.119971	4.00776	2.326336	6.417469	3.03136
2008	3.980593	3.84245	2.32838	6.54845	3.224173
2009	3.847563	3.698047	2.334454	6.240126	2.835012
2010	3.996433	3.898382	2.33646	6.284233	2.90265
2011	4.011796	3.815085	2.303196	6.091731	2.805331
2012	4.170289	3.953008	2.296665	6.059602	2.907637
2013	4.28052	4.121429	2.296665	6.511051	3.371044
2014	4.227246	4.059853	2.294466	6.084544	3.126433
2015	4.230544	3.993463	2.278754	5.976988	2.99009
2016	4.209132	3.965997	2.243038	5.921838	2.760196
2017	4.324877	4.133841	2.235528	5.943605	3.032325
2018	4.340524	4.068954	2.217484	6.02005	3.079984
2019	-1.73506	4.112893	2.212188	5.941681	2.966273
2020	4.58647	4.323524	2.214844	6.062589	3.012065
2021	4.623812	4.348243	2.247973	6.024431	2.961952

Source: Author's computation

6.1. Unit Root test Results

Variables	ADF test statistic	Critical values @ 5%	P-value	Order of Integration
Ecap	-4.652155	-2.963972	0.0008	1(1)
Mcap	-4.146815	-2.960411	0.0030	1(1)
Nole	-3.569039	-2.960411	0.0125	1(0)
Note	-5.598759	-2.963972	0.0001	1(1)
Vote	-4.411684	-2.963972	0.0016	1(0)

Source: e-views output 2023.

The unit root test results displayed on the table above showed that the variables for model estimations has a mixed order of integration. The results revealed that equities market capitalization (ecap), market capitalization (mcap) and number of traded equities (note) were stationary at first differencing 1(1), while number of listed equities (nole) and value of traded equities (vote), were stationary at level 1(0). This informed the adoption of the Autoregressive Distributed Lag (ARDL) approach to co-integration analysis employed in this study.

6.2. Short-run Ardl Model Estimates

Dependent Variable: MCAP
Method: ARDL
Date: 10/01/23   Time: 19:57
Sample (adjusted): 5 32
Included observations: 28 after adjustments
Maximum dependent lags: 4 (Automatic selection)
Model selection method: Akaike info criterion (AIC)
Dynamic regressors (4 lags, automatic): ECAP NOLE NOTE VOTE
Fixed regressors: C
Number of models evaluated: 2500
Selected Model: ARDL(4, 4, 4, 4, 4)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
MCAP(-1)	-0.343207	0.322014	-1.065815	0.3647
MCAP(-2)	0.404972	0.564072	0.717944	0.5247
MCAP(-3)	1.565622	16.92591	1.864929	0.1591
MCAP(-4)	0.754021	1.323585	2.836253	0.0658
ECAP	2.706311	8.940462	2.539724	0.0847
ECAP(-1)	1.822609	20.08479	2.082302	0.1287
ECAP(-2)	-0.340066	16.58913	-1.708351	0.1861
ECAP(-3)	-0.663519	25.74643	-0.258813	0.8125
ECAP(-4)	-0.151383	16.62012	-3.378518	0.0431
NOLE	0.155258	26.61316	0.080985	0.9406
NOLE(-1)	0.458604	33.49427	1.118359	0.3449
NOLE(-2)	0.907622	58.91143	0.864138	0.4511
NOLE(-3)	-1.305162	90.94501	-1.366817	0.2651
NOLE(-4)	0.728999	109.6072	2.269276	0.1080
NOTE	1.217369	9.485351	2.026005	0.1359
NOTE(-1)	-0.102860	4.109737	-1.241651	0.3026
NOTE(-2)	-0.341479	4.378125	-0.763222	0.5009
NOTE(-3)	-2.602351	7.497813	-3.281270	0.0464
NOTE(-4)	0.565688	3.133503	2.095319	0.1271
VOTE	-0.555722	19.53561	-2.331933	0.1020
VOTE(-1)	-0.013896	5.287748	-1.137327	0.3380
VOTE(-2)	1.223137	4.639435	0.910270	0.4298
VOTE(-3)	0.561921	4.950969	3.143207	0.0515
VOTE(-4)	0.908565	7.217408	2.481301	0.0892
C	-448.5434	158.9419	-2.822059	0.0666

R-squared	0.950923	Mean dependent var	3.325140
Adjusted R-squared	0.658310	S.D. dependent var	1.287433
S.E. of regression	0.855624	Akaike info criterion	2.078151
Sum squared resid	2.196278	Schwarz criterion	3.267619
Log likelihood	-4.094111	Hannan-Quinn criter.	2.441783
F-statistic	2.422039	Durbin-Watson stat	2.266033
Prob(F-statistic)	0.254744		

*Note: p-values and any subsequent tests do not account for model selection.

Source: Source: e-views output 2023.

The short run estimates above revealed that only the lagged   value of the number of traded equities (note) exerted significant negative effect on market capitalization within the period under review.

6.3.   ARDL Bounds test for Cointegration

Hₒ: No long run relationship exists amongst the variables (no cointegration)

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
		Asymptotic: n=1000		
F-statistic	3.955336	10%	2.2	3.09
k	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37

Source: e-views Output, 2023

The above table presents the bound test result for the estimation of the existence of long run relationship between equities market and   the capital   market operations. From the result, the F-statistic (3.955336) is greater than the critical value at both the lower and upper bounds I(0) and I(I) at 0.05 level of significance. Thus, the result revealed the rejection of the null hypothesis (H₀) and the conclusion that there is the existence of long run relationship between the equities market and the stock market operations in Nigeria.

6.4. Long Run Ardl result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECAP	0.774432	0.514032	1.506582	0.2290
NOLE	-6.251789	3.296585	-1.896444	0.1542
NOTE	0.211266	0.151196	1.397298	0.2567
VOTE	0.403590	0.573080	0.704248	0.5320
C	13.04610	7.986306	1.633559	0.2009

Source: e-views output, 2023.

The above estimated result showed that in the long run, only number of listed equities (nole) have negative relationship with capital market performance. Though, the negative effect were observed to be insignificant.

6.5. Ardl ECM Estimations

ARDL Error Correction Regression
Dependent Variable: D(MCAP)
Selected Model: ARDL(4, 4, 4, 4, 4)
Case 2: Restricted Constant and No Trend
Date: 10/01/23 Time: 20:35
Sample: 1 32
Included observations: 28

ECM Regression
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(MCAP(-1))	-3.724614	4.353948	-8.205109	0.0038
D(MCAP(-2))	-0.319643	4.296554	-8.220458	0.0038
D(MCAP(-3))	-3.754021	0.628233	-5.975528	0.0094
D(ECAP)	0.706311	3.525197	6.441146	0.0076
D(ECAP(-1))	1.154969	12.02996	7.577330	0.0048
D(ECAP(-2))	0.814903	7.485210	8.391869	0.0035
D(ECAP(-3))	0.151380	7.199752	7.799072	0.0044
D(NOLE)	2.155258	10.28324	0.209590	0.8474
D(NOLE(-1))	-0.331438	27.15563	-6.456543	0.0075
D(NOLE(-2))	-1.423836	20.35804	-6.111778	0.0088
D(NOLE(-3))	-2.728993	37.35575	-6.658385	0.0069
D(NOTE)	0.217369	3.100392	6.198368	0.0085
D(NOTE(-1))	1.378141	2.751731	7.768978	0.0044
D(NOTE(-2))	1.036661	2.122768	8.496766	0.0034
D(NOTE(-3))	-0.565689	1.372231	-4.784681	0.0174
D(VOTE)	-0.555722	6.457615	-7.054573	0.0059
D(VOTE(-1))	-0.693621	4.938453	-7.632679	0.0047
D(VOTE(-2))	-2.470483	3.703565	-9.037369	0.0029
D(VOTE(-3))	-0.908565	2.734762	-6.548489	0.0072
CointEq(-1)*	-0.381408	4.321873	7.955211	0.0041

R-squared	0.971604	Mean dependent var	0.105254
Adjusted R-squared	0.904165	S.D. dependent var	1.692526
S.E. of regression	0.523961	Akaike info criterion	1.721008
Sum squared resid	2.196278	Schwarz criterion	2.672583
Log likelihood	-4.094111	Hannan-Quinn criter.	2.011914
Durbin-Watson stat	2.266033		

* p-value incompatible with t-Bounds distribution.
Source: e-views 0utput, 2023.

The Error Correction Model from the table above revealed that the cointegrating equation has the appropriate signs. This means that short run disequilibrium in capital market performance can be corrected in the long run by equity market operations at the speed of 38.14% per annum.

6.6. reosch-Godfrey Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	0.224424	Prob. F(2,1)	0.8308
Obs*R-squared	8.674308	Prob. Chi-Square(2)	0.2130

Source: e-views output, 2023.

6.7. Heteroscedasticity test: Breusch-Pagan-Godfrey

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	0.865280	Prob. F(24,3)	0.6529
Obs*R-squared	24.46565	Prob. Chi-Square(24)	0.4352
Scaled explained SS	0.266040	Prob. Chi-Square(24)	1.0000

Source: e-views output, 2023.

The above results showed the absence of serial correlation and existence of constant variances of the model residuals overtime, respectively.

7. Discussion of Results

The study adopting the ARDL technique examined the contributions of the equity market to the overall performance of the capital market in Nigeria. This is in view of the fact that empirical literatures on the area of capital market and economic growth abounds but lacking as per the contributions of each segment of the capital market to the latter's performance in Nigeria. The short run analysis revealed equity market operations to have insignificant effect on capital market performance in Nigeria. Also, in the said short run, only lagged value of the number of traded equities (note) was observed to have exerted significant influence on the activities of capital market. The result by implication revealed the shallow nature of the market. The market is deemed not to be very strong and deep in the short-run. More so, going by the fact that new issues don't come up often in the market, the short-run effect will not be visible. There is no gain saying the fact that the insignificant effect of the short run result revealed that the equity market is not robust coupled with low market participations. The fear of not raising the needed capital by corporations can also be a factor.

Nevertheless, the ARDL bounds test revealed the existence of long run relationship between equity market operations and performance of the capital market in Nigeria. From the bounds test result, the F-statistic (3.955336) is greater than the critical value at both the lower and upper bounds I(0) and I(I) respectively, at 0.05 level of significance. Thus, the result revealed the rejection of the null hypothesis (H_0) of no long run relationship. Further analysis showed that only number of listed equities (nole) have negative relationship with capital market performance that in the long run but of no significant effect. Thus, it can be deduced that equity market operations influences and enhances capital market performance. The error correction mechanism estimations showed that short run distortions in the activities of the capital market can be adjusted in the long run by equity market activities at the speed of 38.14% per annum.

8. Conclusion and Recommendation

The result of this study revealed the existence of long-run relationship between equities market operations and performance of the capital market in Nigeria. That's to say, equity market activities has significant effect on capital market performance. Thus, the followings were recommended:There is need for increased awareness on the activities of

the equities market in Nigeria, promotion of market transparency, confidence in the system and regulatory stability for improved efficiency and effectiveness.

a. There is need for increased awareness on the activities of the equities market in Nigeria, promotion of market transparency, confidence in the system and regulatory stability for improved efficiency and effectiveness.

b. The need to further develop the Nigerian equities and capital markets cannot be over emphasized. This is because the capital market in Nigeria is grossly under-developed in terms of number of listed securities, degree of liquidity, market capitalization, institutional framework and the likes. This no doubt has adversely affected government's stabilization policies.

c. There is need for the government to take the issue of security very seriously. This is because events of the mid-1990s have it on literature that investments tend to flow away from environments where there is insecurity, uncertainty and insecurity. This is a strong point when one consider that majority of investments in the Nigerian capital market are foreign portfolio investment; and that Nigeria witnessed a lot of divestments in the mid-nineties as a result of security issues (Nwezeaku, 2008).

d. The process of issuing and selling equity stocks should be made more transparent in Nigeria in order to encourage all and sundry to participate in the process. The practice whereby equity stocks are reserved for special people has not helped in the growth of the Nigerian capital market.

e. Business firms and corporate entities should as well enthrone transparency and probity in dealing with shareholders as this will also go a long way in encouraging more participation of investors in equity market activities in Nigeria.

f. Government should be on its toes to ensure stability of the Nigerian economy as constant devaluation and depreciation of the Naira has not helped matters in terms of attracting investors in the capital market through activities of the equity stock market.

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