

## **IMPACT OF CAPITAL MARKET ON INFLATION IN NIGERIA**

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### **Abstract**

*This research appraises the impact of capital market on inflation in Nigeria. The capital market in the process of carrying out its function is faced with many challenges which have some effects on economic trend through financial restructuring and reforms by government. The capital market is therefore required to adapt to the constantly trends in the economy. The study is aimed at addressing the vital role of the capital market on the control of inflation on the Nigerian economy. The ordinary least square multiple Regression analysis was used to analyze the data. The variables used are inflation, market capitalization, value of shares traded, capital formation, interest rate and exchange rate and Inflation being the dependent variable. After carrying out this research it was found out that market capitalization has a negative relationship with inflation in Nigeria. In order for the Nigerian capital market to be a controlling agent to inflation , there should be improvement in declining capitalization by encouraging more foreign investors to participate in market , maintain state of the art technology like automated trading and settlement practices, electronic fund clearance and eliminated physical transfer of shares.*

**Keywords:** Capital market, Inflation, Economic Trends and Nigerian Capital Market

### **Introduction**

The capital market had been identified as an institution that contributes to the economic growth of merging economics. In many countries across the globe, the capital market is one of the plants that drive the economy. The success or failure of a country's economic programe is anchored on the performance of the capital market operations. Considering the needed magnitude of growth operations; Considering the needed magnitude of growth in real resources and their allocation within an economy, financial market are germane to the guest for the growth of the economy not minding the claim that sometimes asset valuation may not adequately reflect the rate of return in investment in productive capacity. A major engine of economic growth and development of a nation is its capital. It impacts positively on the economy by providing financial resources through its intermediation process for the financial long term projects. The projects could be promoted by government or private sector institutions. They are usually in such areas as infrastructure, agriculture, sold minerals, manufacturing, banking and other financial services and other real sector arrears. Hence without an efficient capital market, economy may be starved of the required long-term fund for sustainable growth.

In Nigeria, the capital market has over the years been performing its traditional role. However, the efficiency and effectiveness in this regard have greatly been limited by various factors notable among which is the structure of the economy, which is dominated by oil production. Yet the oil producing companies are not

fully listed on the stock exchange. Also the capital market helps to channel capital or long term resources to firms with relatively high and increasing productivity; thus embracing economic expansion and growth.

#### Statement of problem

The basic function of any financial system is the provision of a conducive atmosphere for the transfer of funds from the surplus sector of the economy to the deficit sector. 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 subject to undue risks, borrowers in the capital market need to satisfy certain basic requirements.

Capital market offers access to a variety of financial instruments that enables economic agents to pool price and exchange risk. Through asset with attractive yields, liquidity and risk characteristics, it encourages savings in financial forms. Virile financial markets assist the nations of the world to muster needed financial resources as skills to control inflation. The importance of capital market lies in its financial intermediation capacity of link the deficit sector with the surplus sector of the economy. The absence of such capacity denies the economy of opportunities for investment and production of goods and services for societal advancement which might to lead to inflation. Funds could therefore be idle at one end, while being sought at the other end in pursuit of socio-economic growth and development (Akinbphungbe, 1996).

#### Research questions

- i. This research shall be guided by the following research questions
- ii. What evaluate the impact of capital market on inflation in Nigeria?
- iii. To identify the problems of the Nigerian capital market.

#### Research hypothesis

For the purpose of the accuracy of the study, the research hypothesis tested was:

**Ho:** The capital market does not have significant impact on inflation in Nigeria

**H1:** That the capital market have significant impact in Nigeria.

Capital market may also affect economic activities through the creation of liquidity. Liquid equity market makes available savings for profitable investment that requires long term commitment of capital. Hitherto, investors are often reluctant to relinquish control of their savings for long periods. As asserted by Bencivenga, smith and Sarr (1996), without liquid capital market there would be less willing to invest in large, long- term projects that characterized the early phase of industrial revolution. Closely related to liquidity is the function of risk diversification. Capital market can affect economic growth when they are internationally integrated. This enables greater economic risk sharing. Because high return projects also tend to be comparatively risky, capital markets that facilitates risk diversification encourages a shift to high-return projects (obsteld, 1994).

#### DETERMINANTS AND CAUSES OF INFLATION

Exchange rate is major determinant of inflationary rate in Nigeria. It is the value of the domestic currency in terms of foreign currency. On the other hand, foreign exchange is the actual foreign currency or various diams (bank deposits or promises to pay) on it, that are traded for each other (christal and lipsey, 1999). Exchange rate changes can affect the relative prices, thereby the competitiveness of domestic and foreign producers. A significant appreciation of the domestic currency makes domestic goods expensive relative to foreign goods resulting in a shift of demand away from domestic to foreign goods. The effect of such a shift on the economy is reduction of demand pull inflation.

#### THE CONCEPT OF CAPITAL MARKET

A market can be defined as the framework for exchange of goods and services. In Africa and most developing countries, markets have precise locations and trading activities takes place at precise times. Today due to the advancement in information technology, markets are becoming less of specific place but more of arrangement by which buyer and sellers get together to exchange goods and services.

According to Alile (1992), the term capital market broadly defined includes the entire financial system including the commercial bank and other financial institutions providing equity to finance both consumption and investments.

Capital market is defined as the market where medium to long term finance can be raised (Akingbohunge 1996). In another exposition, Ekezie (2002) noted that capital market is the market for dealings (i.e. lending and borrowing) in longer-term funds are made available by the surplus to the deficit economic units. In an open market economy, the role of the capital market is very important. The functioning of a goods capital market is vital in the contemporary economy, in order to achieve an efficient transfer of monetary resources from those who save money. Towards those who need capita and who succeed of offer it a superior utilization, the capital market can influence significantly the quality of investment decisions. The gathering of temporary capitals that are available in the economy, the reallocation of those that are insufficiently used at a certain mount and even the favouring of some sectoral re- organization, outline the capital market's place in the economy of many countries (Ben and Ghazouani, 2007).

#### IDEAL. ENVIROMENT FOR EFFICIENT CAPITAL MARKET

Having defined what a capital market is, it is pertinent to discuss economic and social factors that promote successful securities market.

1) Enterprising Sectors : The role of capital market in an economy is interwoven with finding a positive and constructive role for its private sector and the capital market must somehow be integrated into the country's overall development programme. Both must be responsible to the needs of the population as a whole. In the case of Nigeria after independence, the role of the private sector and that of the capital market were in the hands of expatriate managers. Historically government officials regards the private sector which was dominated by multi- nationals enterprises to their lines of foreign interest. Hence the indigenization of the economy resulted in Nigeria- Enterprises promotion decree (NEPD) of 1972 and 1977, even toady capital market can only be effective if there is vigorous healthy private sector within the economy. Identifying this is not an easy task and cannot be taken for granted. It involved the trickily problem of convincing the rulers that private enterprises can identify closely with the broader aims of the nation with minimal conflicts. It would appear that only time could bring authorities to the realization of what is needed.

2 Inequality: Fundamental reason for the inefficiency of a market of any kind is lack of equality. Where substantial inequalities of wealth exist, as we have in Nigeria is assumed to affect the purchasing power (and have profit) of different group within society which also reflects on the real need and priority of the respective group. it is also because of the high degree of inequality that has made even the Nigeria capital market to concede to preferential allotment instead of leaving it all to market forces.

3) Interest Rate: The importance of an effective interest rate policy cannot be overstated. What encourages or discourage household saving, as well as establishment the balance of the finance between the private and public sectors for example federal government until recently pegged interest rate at below their market equilibrium perhaps in attempts to minimize the interest cost on its debt issues. This sort of policy tends to improve the incentive activities to emphasized prestige project at the expenses of the rural and agricultural sectors.

Fortunately, these distortions are now being recognized as not conducive to long term stability. Supply and demand force must determine interest rate and limits of the capital market development. The dilemma over interest rate of course, should be at an appropriate level not too expensive to choke off investments and not too low to make borrowing too attractive.

The role of foreign investment: Foreign investment can offer four over lapping but distinct benefit to a hosting economy.

- i) As an additional source of foreign exchange mainly at inception.
- ii) As a source of technical and managerial experience.
- iii) As a channel of export through associated companies abroad.

A Local capital market often has a role to play in assisting the indigenization of foreign investment and for good reasons multinational substances are often ideal candidates for public quotation for capital market. The history and development of the Nigerian stock Exchange attest to the above assertion,

5 Broadening Ownership: A great problem in developing equities market is the reluctance of many family owned forms to list on the Nigeria stock Exchange and sell an adequate proportion to the public.  
The Nigerian Capital Market

### **Traditional Characteristics**

a) Market Size: With 200 securities listed in 2013 with a market capitalization of approximately N12.88 trillion (\$80.8 billion). The Nigeria Capital Market is still regarded as small related to international standards. Although in Africa, Nigeria ranked 4 after South Africa, Egypt and Morocco in terms of market size (Standard and Poor's Emerging Stock Market Fact Book 2014). Among the emerging market capitalization out of 5\* markets covered by Standard and Poor's was just 0.1% as at the end of 1999 (Standard and Poor's Emerging Stock Market Fact Book, 2014). Alile and Anao, (1986) adduced possible reasons for the small size. One of the reasons is that indigenous entrepreneurs were not too keen in going public due to fear of losing control. However, an innovative move by the stock market through the creation of a second tier securities market (SSM) tried to find a solution to the problem. Measures taken by the government and the exchange itself are expected to boost the resources base of the stock in Nigeria. These measures are: Privatization of public enterprises, linking up of the exchange with Reuters Electronic Contributors System for on-line global dissemination of Stock Information, Launching of the exchange's intranet system (CAPNET) and the transition of the exchange from manual call-over Trading System to Automated System (ATS). In April 1999, it is also expected that the present democratic dispensation will impact positively on the turnover of the exchange.

b) Liquidity: Basically liquidity refers to the ease with which an asset (in these cases securities) can be turned into cash through an efficient market. That is, the ability to easily buy and sell securities.

b) Turnover ratio is the value of total shares divided by capitalization. High turnover reflects low transaction costs. The Nigerian stock market turnover ratio for the period under study has an average of 0.04.

### **OTHER INSTITUTIONS IN THE NIGERIAN CAPITAL MARKET** The Securities and Exchange Commission

The Securities and Exchange Commission is the apex regulatory body for the Nigerian capital market. It was established by the Securities and Exchange Commission Act of 1979, which was further strengthened by the SBC Act of 1989 and the Investments and Securities Act No. 45 of 1999. The new act conferred on the commission wide range regulatory powers over the institution operating in the capital market; it licenses the stock exchange and capital trading points as well as provide operational guidelines for institutions in the capital market.

The Securities and Exchange Commission (SEC) is responsible for registering all securities offered in all stock exchanges in the country, issuing houses and stock brokers. It is registered over-the-counter Transaction (OCT) futures, option and other derivatives, commodity exchange and any other recognized investment exchanges. The SEC maintains surveillance over the securities market to ensure strict compliance with the regulatory requirements of 'just and equitable dealings'. Since 1999, when the SHC stipulated minimum paid up capital for all capital market operations, efforts had been made to restructure the Nigerian capital market. It is important to note that, since its inception, activities of SEC have continued to impact positively on the development of the Nigerian financial system.

### **The Federal Ministry of Finance (FMF)**

Capital Market Efficiency: The Nigerian Experience.

For capital market to perform the function for which it is established and to justify its existence, it must be effective in its operational character. Specifically, its role in determining of share prices to reflect their full value vis-à-vis the automatic interpretation of the complete body of publicly available information about a company's performance and prospect.

Thus efficient information must be greatly available for rational profit maximization investors, stock prices must be so fairly valued that the average investor will receive an average return because the market will be an efficient price of earning potential and risk. When extended further, the so-called Efficient Market Hypothesis (EMH) argues that "today's price which reflects all current information to the best estimate of tomorrow's present valued price." The determination of that price is the function of an unencumbered freely

operational efficient capital market. The desirability at this type of market in socio-economic terms is to ensure that savings are channeled into the most profitable investment and capital thus allotted optimally. Exchange is a far cry from this characterization and is under-developed. Not only is the market lacking in depth, there is little trading and new public issues by private enterprises, beyond those necessitated by the enterprises promotion act of 1977, are few and far between and substantially insignificant.

#### CAPITAL MARKET INFLATION.

The capital market inflation theory brings an insight of how capital markets actually operates and identifies the critical effect that its' activities have on the economy. The theory brings together the supply and demand for equity capital. Supply being from households and funds operating with households (pension schemes, mutual and investment funds) and the financial businesses, which issue equity capital. The inflows in the capital markets circulates around its participants, the initial money put into the market will be turned over more than once, until is taken out by government in forms such as issuing bond, and corporations by means of them issuing stock. The balance is a net excess inflow, which will continue to circulate within the market until it is taken out by government in form of issuing bonds, and corporation by means of them issuing stock. The balance is a net excess inflow, which will continue to within the market until it is taken out by additional stock issue or investors' sale. If the initial transaction was a sale, the exchange will continue until the liquidity will be replace by purchasing securities in the market.

The excess net inflow determines the value of turnover in stock and liquidity in the capital market. It also provides a margin of liquidity that allows the market to absorb to some degree that net sales by investors. In other words, when investors sells tock, the market is kept stable not by lowering prices to attract buyers, but using the past accumulation of net excess flow out to purchase the excess stock the investors have put on sale. The implication of this is that demand and supply of equity are not usually in equilibrium but are usually unequal and balanced by net inflows or outflows of credit into the market. Hence, stock markets crash not because they were not in equilibrium but because their disequilibrium has not been sufficient to accumulate enough inflow to accommodate the desired net level of stock sales. It is the net excess inflow that determines the price level of securities rises. This describes the process of capital market inflation. When the price of securities rises, the demand will increase even more, as investors are attracted by additional returns of capital gains. However, not all securities rise equally or proportionally.

#### MODEL SPECIFICATION

The research work will examine the relationship between capital market and inflation and also the growth rate of real GDP. The yardstick of determining the economic performance is the GDP. Its inflation is therefore used as the dependent variable in the model. Market capitalization GDP ratio at annual market value, value of shares traded GDP ratio at annual 'market value, National Savings annual nominal value all used as independent variable.

$$INF = F(X_1) \text{---(1)}$$

Thus the functional relationship is

$$INF = F_0MCAP, VST, CAPF, INT, EXCR) \text{---- (2)}$$

Model

$$INF \text{ dot } a_1, MCAP + a_2VST+a_3+CAPF + 2_4INT+2, a_5EXCR + U - (3)$$

Where

INF = Inflation

MCAP= Market Capitalization

VST= Value of Shares Traded

CAPP = Capital Formation

INT = Interest Rate

EXCR= Exchange Rate

$a_0$  = Intercept Parameter

$a_1$  = MCAP Slop Parameter

$a_2$  = VST slope Parameter

$a_3$  = CAPF slope Parameter  
 $a_4$  = INT slope Parameter  
 $a_5$  = EXCR slope Parameter  
 U = Stochastic error Term

**DIAGNOSTIC TEST**

**Unit Root Test**

Unit root is tested with augmented Dickey-Fuller test. It implies that they are not integrated to zero, hence we shall subject the variables to unit root test. Using Augmented Dickey-Fuller (ADF) test in order to check the problem of auto-correlation.

**Auto Correlation**

The Durbin- Watson d-statistics will be used to test the randomness of the residuals or more specifically for testing the presence of auto correlation in the error term.

The null hypothesis is summarized as follows:

Decision Rule: if the computed Durbin-Watson is less than the lower limit, there is evidence of positive first order series correlation. If it is less in between, there is inconclusive evidence regarding the presence or absence of positive first order correlation.

**Multi-collinearity Test**

This is used to check or test if the explanatory variables is highly correlated or not. This test is done with the aid of the high pair-wise correlation among regressions.

The rule of thumb suggested that if the pair wise of zero order correlation coefficient between two repressors is high, say the excess of 0.8, then multi co-linearity is a serious problem

**TEST OF HYPOTHESIS.**

In testing the hypothesis we use probability of f-statistics at 5% level of significance.

Decision rule => Reject the null hypothesis ( $H_0$ ) If the probability of the f-statistics is less than 0.05, otherwise do not reject.

**DIAGNOSTIC TESTS**

The following diagnostic tests of the data and model were carried out as follows.

**TABLE .1 DAIGNOSTIC TEST RESULTS**

TEST TYPE	TEST VALUE
$R^2$	0.977885
Adjusted $R^2$	0.974074
Durbin Watson	1.730737
F-statistics	256.4630
F-probability	0.000000

Source: Author Analysis, 2020.

**GOODNESS OF FIT**

$R^2$  the coefficient of multiple determination was used for this test. From the regression result in table 4.1, the value of  $R^2$  is 0.977885. This suggests that changes in the independent variables explain 98% of the changes in the dependent variables. After adjustment of degree of freedom, the adjusted  $R^2$  value which is 0.974072 indicates that approximately 97% of the changes in the independent variables. The level of explanatory power was considered satisfactory for this study.

**OVERALL SIGNIFICANCE OF THE REGRESSION**

In order to determine if all the explanatory variables have significance of effect of the dependent variable, the F-test was used. The decision rule in chapter three was followed.

From the result in table 4.1, the value of the f-probability is 0.000000, we therefore reject the null hypothesis at 5% level of significance and conclude that the independent variables have significant impact on the dependent variable.

**AUTOCORRELATION**

Durbin Watson statistic was used to test for the presence of autocorrelation.

Decision Rule: if a computed value of Durbin Wastson (J) is less than the lower limit (d), there is evidence of positive first order serial correlation but if it lies between the lower and upper limits, it is inconclusive.

In table .1, the Durbin Wastson (d) statistics is 1.992521. Therefore, since we conclude that there is no evidence of positive first order serial correlation.

**STATIONALITY**

To avoid the generation of spurious result, there was need to test for stationaliuty. The Augmented Dickey-Fuller test was used.

Decsison Rule: if the Augmented Dickey-fuller test statistic is greater than the critical values in both in absolute terms, we reject the null hypothesis.

The summary of the stationality test shown in table .2

**TABLE .2: AUGMENTED DICKEY-FULLER (ADF) UNITS ROOT TEST RESULT.**

Variables	Level	1 <sup>st</sup> difference	2 <sup>nd</sup> difference	Order of integration
INF	-3.438432**	-5.888629*	-7.018394*	1(1)
MCAP	-3.210744**	-4.542149*	-5.755830*	1(1)
VST	-2.063681	-5.967801*	-6.759033*	1(1)
CAPF	-3.745303*	-5.902946*	-7.055873*	1(1)
INT	-3.468565**	-7.582303*	-8.212374*	1(2)
EXR	-0.511790	-3.879820*	-6.706323*	1(2)
CERTICAL VALUE				
1%	-3.6422	-3.6496	-3.6576	
5%	-2.9527	-2.9558	-2.9591	
10%	-2.6148	-2.6164	-2.6191	

(\*) (\*\*) (\*\*\*) Signifiy significance at 1%,5% and 10% respectively.

Source: Authors Analysis 2020.

The result in the table .2 shows the variable were stationary at first difference and second difference since these value of the Augmented Dickey-fuller (ADF) Unit root test was greater than 5% out chosen critical value. Inflation, market capitalization and value of shares traded were stationary at first difference; capital formation was stationary level while exchange rate and interest rate were stationary at secondary difference.

**Long-Run Estimate**

The Johnson-Jusluia maximum likelihood method of co-integration was used to obtain the long-run estaimate.

H0: There is no long run estimate

Hi: There is long-run relationship

Decision rule: Reject the null hypothesis if the like hood ratio of possible combination of the one variable or more is greater than the chosen critical value otherwise do not reject.

**TABLE .3: JOHANSEN CO-INTEGRATION TEST RESULT.**

Elgen value	likelihood	5%	1%	Hypothesized No. of CEO
0.736354	122.3736	94.15	103.18	None**

0.603697	78.37968	68.52	76.06	At most 1*
0.511797	47.83566	47.21	54.46	At most 2*
0.359033	24.17386	29.68	35.65	At most 3
0.242640	9.496200	15.41	20.04	At most 4
0.009798	0.324932	3.76	6.65	At most 5

\*\*\* Signifies rejection at 5% (1%) significance level

Source: author Analysis 2015

From the result above in table 4.3, we conclude that the variables are cointegrated since the likelihood ratio of three possible combinations is greater than their critical value at 5%.

### **SHORT RUN ESTIMATE**

The confirmation of the existence of a co-integration vector among the data series gives us enough background for carrying out short run dynamic adjustments. The presence of co-integration makes it possible to estimate error correction mechanism (ECM), which is a solution to the problem of spurious results associated with estimating equations involving time series parameterised error correction model from where preferred error correction model would be obtained. The novelty of ECM is that it provides a framework of establishing the links between the long run and short run approaches to economic modeling. Therefore, adopting the general to specific framework, we present to estimate all over-parameterized error correction model from where preferred error correction model is obtained and presented in the tables below.

#### **Table .4: over parameterized short-run regression estimate**

Dependent variable: INF

Method: least square

Date: 07/05/15 Time: 03.31

Sample (adjusted) 1985 2014



Included observation: 30 after adjusting end points

variable	Coefficient	Std. error	t-stat	Prob.
DINF(-1)	0.150920	0.185427	0.813905	0.4367
DINF (-2)	-0.054508	0.237434	-0.229570	0.8236
DINF(-3)	0.152429	0.245387	0.621178	0.5499
DMCAP	-0.004947	0.002305	-2.146496	0.0604
DMCAP(-1)	0.009216	0.003531	2.610104	0.0283
DMCAP(-2)	-0.007708	0.001420	-5.428-79	0.0004
DMCAP (-3)	0.000136	0.002618	0.052055	0.9596
DVST	0.029004	0.005723	5.068298	0.0007
DVST(-1)	0.03509	0.075488	1.238735	0.2468
DVST (-2)	-0.185710	0.090022	-2.062946	0.0691
DVST (-3)	0.222351	0.084040	-2.645770	0.0267
DCAPT	373.8280	201.2030	1.857965	0.0961
DCAPT (-1)	-1168.103	275.9932	-4.232361	0.0022
DCAPT (-2)	280.7790	287.9288	0.975168	0.3550
DCAPT (-3)	620.9886	325.1843	1.909651	0.0885
DINT	-0.322525	0.163992	-1.966714	0.0808
DINT (-1)	0.537595	0.094558	5.685352	0.0003
DINT (-2)	-0.608479	0.121069	05.025894	0.0007
DINT (-3)	0.828666	0.191808	4.320296	0.0019
EXR	0.373622	0.748381	2.478121	0.7362
DEXR (-1)	0.035261	0.425116	3.526362	0.0132
DEXR (-2)	0.0006382	0.213421	3.267382	0.0026
DEXR (-3)	0.432821	0.345362	4.362651	0.0352
C	7749.733	3336.341	2.322824	0.0453
ECM(-1)	-0.224640	0.125680	-1.787400	0.1075

<b>R-squared</b>	<b>0.999987</b>	<b>Mean dependent var</b>	<b>289663.6</b>
Adjusted R-squared	0.999958	S.D dependent var	1458757
S.E regression	9414.056	Akaike Info Critereon	21.33382
Sum quared resid	7.98E+08	Schwar 2 criterion	22.31466
Loglikelihood	-299.0073	F-Statistic	34815.66
Durbin Watson stat	2.221482	Prob (F-statistic)	0.000000

Source: Auhors computation 2020 and attracts from E-view 3.1 print out.

The result of the over parameterized error correction model presented in table 4.4 above. The over parameterized model reports the initial over-parameterized error correction of industrial output in relation to all the variables lagged equally (3 lags) taking into cognizance the number of observations. The difficulty perceived in interpreting the over-parameterized regression necessitated the simplification of the model into a more parsimonious form. This was achieved by elimination the insignificant terms. The Schwarz information criteria were used to guide parsimounisous reduction of the model. This helps to identify the main dynamic pattern in the model and to ensure that the dynamics of the model have not been constrained by inappropriate lag length specification (Amassoma et al 2011).

**Table .5 Parsimonious Short Run Regression Estimate**

Dependent Variable: INF

Method : Least Square

Date: 07/05/15 Time: 03:31

Sample (adjusted ): 1985 2014

Included observations: 30 after adjusting end points.

variable	Coefficient	Std. Error	t-stat	Prob.
DINF(-1)	0.150920	0.185427	0.813905	0.4367
DMCAP	-0.004947	0.002305	-2.446496	0.0604
DMCAP(-1)	0.009216	0.003531	2.610104	0.0283
DMCAP(-2)	-0.007708	0.001420	-5.428-79	0.0004
DVST	0.029004	0.005723	5.068298	0.0007
DVST (-2)	-0.185710	0.090022	-2.062946	0.0691
DVST (-3)	0.222351	0.084040	-2.645770	0.0267
DCAPT (-3)	620.9886	325.1843	1.909651	0.0885
DINT (-1)	0.537595	0.094558	5.685352	0.0003
DEXR (-2)	0.608479	0.121069	-5.025894	0.0007
DEXR (-3)	0.828666	0.191808	4.320296	0.0019
C	7749.733	3336.341	2.322824	0.0453
ECM(-1)	-0.224640	0.125680	-1.787400	0.1075

<b>R-squared</b>	<b>0.999987</b>	<b>Mean dependent var</b>	<b>289663.6</b>
Adjusted R-squared	0.999958	S.D dependent var	1458757
S.E regression	9414.056	Akaike Info Critereon	21.33382
Sum quared resid	7.98E+08	Schwarz 2 criterion	22.31466
Loglikelihood	-299.0073	F-Statistic	34815.66
Durbin Watson stat	2.221482	Prob (F-statistic)	0.000000

Source: Authors computation 2020 and Extracts from E-View 3.1 print out.

The parsimonious regression result in table 4.5 is preferred to that of over-parameterized regression result in table 4.5. Since it has more robust significant repressors, lower Schwarz criterion (SC) and lower standard Error (SE).

With the respect to the parsimonious regression estimate capturing the short run analysis, it is observed that there is significant improvement inn the parsimonious model. The adjusted R-square, F-sta and the Durbin –Watson improve significantly. The result further show that the co-efficient of the error term for the ECM model is both statistically significant at one percentage and negative. The coefficient estimate of the error correction model term of -0.559698 implied that the model corrects its short run disequilibrium by about 55 percent speed of adjusted in order to return to a long run equilibrium. Also, the negative sign of the error correction term indicates a move back towards equilibrium. We therefore say that there is convergence.

### **NORMALITY TEST**

This was conducted to check if the error term follows the normal distribution. The Jarque-bera test of normality was used.

H0: The error term follows a normal distribution

H1: The error term does not follow a normal distribution.

**DECISION RULE:** If the probability of the jarque-bera is less than 0.05 level of significance, we reject the null hypothesis.

The result from the Jarque-bera normalcy test are presented in table .6

**Table .6: Normality Test Result**

Variable	value
Jarque-bera	26.74392
Probability	0.000002

Source: Authors Analysis, 2020.

From the result in table 4.6, the probability of the Jarque-bera is 0.00002. we therefore reject the null hypothesis and conclude that the error does not follow a normal distribution since the probability of the Jarque-bera is less than 0.05 level of significance.

**HETEROSCEDASTICITY TEST**

White heteroscedasticity (no cross terms) was conducted to ascertain whether the variance of the error term has a constant variance. The hypothesis to be tested are

H0: Homoscedasticity

Hi: Heteroscedasticity

Decision Rule: Reject the null hypothesis if the probability of the f-statistics is less than 0.05 level of significance otherwise we do not reject.

The result obtained from the white heteroscedasticity test is represented in table 4.7.

**TABLE .7 WHITE HETEROSCEASTICITY TEST RESULT**

F-Statistic 4.490331	Probability 0.071240
06* R-Square 22.80900	Probability 0.011474

From the result in table 4.6, the probability of F-statistics is 0.071240 since 0.071240 is greater than 0.05 level significance, we do not reject the null hypothesis and conclude that the variance of the error term is constant over time.

**MULTICOLLINEARITY**

Correlation matrix was used to check for the problem of multicollinearity among the explanatory variables.

Decision Rule: if the pair unit or zero order correlation co-efficient between two regressions is high say in excess of 0.8, then multicollinearity is serious problem.

**TABLE .8 CORRELATION MATRIX**

VARIABLES	INF	MCAP	VST	CAPF	INF	EXR
INF	1	0.0752	-0.23311	0.666921	-0.0665	-0.36818
MCAP	0.0752	1	-0.15145	-0.5198	-0.32915	-0.12765
VST	-0.23311	0.15745	1	-0.19247	0.239579	0.708135
CAPF	0.666921	-0.05198	-0.19247	1	-0.11821	-0.2035
INF	-0.06725	-0.32915	0.239579	-0.11821	1	0.041331
EXR	-0.36818	-0.12765	0.708135	-0.2035	0.04133	1

Source: Authors Analysis 2020

From the result in table .8, the correlation between any two variables is not up to 0.8. Hence, we conclude that there is no problem of multicollinearity.

**SPECIFICATION TEST**

This test was conducted to check if the model is correctly specified or not. The ramsey reset test was adopted.

H0: The model is mis-specified

H1: The model is mis-specified

Decision Rule: if the F-probability is less than the chosen level of significance, the rejected null hypothesis.

**TABLE .9 SPECIFICATION TEST RESULT**

F-statistic	1.406294	Probability	0.254673
Log likelihood ratio	10.93805	Probability	0.090310

Source: Author analysis 2020

From the result in table 4.9, the probability of F-satistics is 0.254673. since 0.254673 is greater than 0.05 level of significance, we do reject the null hypothesis and conclude that the model is not mis-specified.

**TABLE .10 C0-INTEGRATION RESULT FOR LONG-RUN ESTIMATE**

**The Normalized co-integration coefficient**

INF	MCAP	VST	CAPF	INT	EXT
1.00000	0.463635	-2.27E-06	-1.170751	0.44027	0.123056
S.E	(0.29045)	(1.1E-06)	90.12901)	(0.02517)	(0.03090)

Log Likelihood -1137.374

C

-10365308

Source: Authors Analysis 2020

**Answering of research questions**

The research questions were answered using the co-efficient of the normalized co-integration test for long-run relationship. The summary of the normalized co-integration test for long-run relationship is presented in table 4.11

**Table .11 summary of co-integration test for long-run relationship after multiplying the coefficient by -1**

Variable	Coefficient	Standard error	t-calculated	t-tabulated
MCAP	-0.463635	0.29045	-1.6	2.447
VST	2.27E-06	1.1E-06	2.06	2.447
CAPF	1.170751	0.12901	9.07	2.447
INT	-0.044027	0.02517	-1.749	2.337
EXR	-0.123056	0.03090	-3.98	2.447

Where  $t\text{-calculated} = \text{coefficient}/\text{standard error}$  and  $t\text{-tabulated} = n-k$ ; n is the number of observation and k is the number of variables including the intercept

Source: Authors Analysis 2020.

**Research question 1**

What is the relationship between market capitalization and inflation in Nigeria?

Market capitalization has a negative relationship with inflation. This can be seen in table .11 where the coefficient of market capitalization is seen to be -0.463635.

**Research question 2**

What is the relationship between value of shares traded and inflation in Nigeria?

Values of share traded have a positive relationship with inflation. This can be seen in table .11 where the co-efficient of value of shares traded is seen to be 2.27E.-06.

**Test Of Hypothesis**

The hypothesis was tested using the t-statistics of the normalized co-integrated test for long-run relationship  
Decision Rule: if the t-calculated is greater than t-tabulated at the chosen level of significances reject the null hypothesis (H0).

Hypothesis one

H0: Market capitalization has no significant effect on inflation in Nigeria.

H1: Market capitalization has significant effect on inflation in Nigeria.

From table 4.11, since the t-calculated market capitalization which is -1.6 is less than t-tabulated which is 2.447, we therefore refuse to reject the null hypothesis. This follows that market capitalization has no significant effect on inflation in Nigeria.

Hypothesis two

H0: Value of shares traded has no significant effect on inflation in Nigeria

H0: Value of shares traded has significant effect on inflation in Nigeria

From table 4.11 since the t-calculated values of shares traded is 2.06 which is greater than the t-tabulated which is 2.447, we therefore reject the null hypothesis. This follows that values of shares traded has significant effect on inflation in Nigeria.

### **Discussion Of Findings.**

**FINDING ONE:** Market capitalization has a negative relationship with inflation in Nigeria. This is shown by the negative co-efficient of market capitalization with a value of 0.463635 in table 4.11. This indicates that a unit increase in market capitalization leads on average to 0.46 decreases in inflation in Nigeria. This finding conforms to a prior expectation based on economic theory. This findings also shows that market capitalization has no significant impact on inflation. This is shown by the t-statistics value of market capitalization which is 1.6 in table 4.11. The market capitalization which less than 0.05 our chosen level of significance. This implies that market capitalization has negative impact of inflation in Nigeria and the impact is not significant.

**FINDING TWO:** Value of shares traded has a positive relationship with inflation. This is shown by the positive co-efficient of values of shares traded with a value of 2.27 in tables 4.11. This indicates that a unit increase in value of shares traded leads on average to 2.27 increases in inflation. This finding conforms with a prior expectation based on economic theory. Our findings also show that value of shares trade has no significant impact on inflation. This is shown by the t-statistics value of value of shares traded which is 2.06 in table 4.11. Values of shares traded which is greater than 0.05 our chosen level of significance. This implies that value of shares traded has a positive impact on inflation in Nigeria but the impact has no significant effect on inflation in Nigeria.

**FINDING THREE:** Capital formation has a positive relationship with inflation. This shown by the positive co-efficient of capital formation with a value of 1.170751 in table 4.11. This indicates that a unit increase in capital formation lead on average 1.170751 expectations based on economic. Our findings also show that capital formation has significant impact on inflation. This is shown by the t-statistics value of capital formation which is greater than 0.05 our chosen level of significance. This implies that capital formation has positive impact on inflation in Nigeria and the impact is significant.

### **Conclusion**

The capital market is meant to stabilize or control inflation to some extent and also serve as an important mechanism for effective and efficient mobilization and allocation of savings, a crucial function for an economy desirous for an economy desirous of growth.

The study attempted to place this role in the Nigerian content between the period 1980 and 2014. By the use of some notable capital market development indicators, the relationship between market capitalization and inflation was found to be negative. This study clearly shows that Nigeria economy has low absorptive capacity, that is financial capital cannot be absorbed productively to stabilize inflation.

Moreover, the market is characterized by illiquidity and excessive government regulations. This suggests that for a significant control of inflation, the focus of policy should be on measure to promote growth in the capital market. The Nigerian capital market has a bright prospect given the recent policy direction especially the abrogation of all laws that hamper its effective and efficient functioning. Also the internationalization, the improvement of infrastructural facilities especially information technology in the market as obtainable in the developed market and also the present democratic dispensation will all work individually and collectively to stimulate the prospect of the capital market.

### **Recommendation**

The findings from this study raised some policy issues and recommendations, which will reinforce the link between the capital market and inflation in Nigeria. Given that the capital market operates in a microeconomic environment. It is therefore necessary that the environment must be an enabling one in order to realize its full potentials.

In order for the Nigerian capital market to be a controlling agent to the inflation, the following suggestion are put forward; firstly improvement in the declining capitalization by encouraging more foreign investors

to participate in the market, maintain state of the art technology like automated and settlement practices, electronic fund clearance and eliminate physical transfer of shares.

Secondly, the capital market is known as a relatively cheap source of funds when compared to the money market and other sources. The cost of raising funds in the Nigerian capital market is however, regarded to be very high. There should be a review downward of the cost, so as to enhance its compositeness and improve source of raising funds.

Thirdly, there is also need to restore confidence to the market by regulatory authorities through ensuring transparency and fair trading transactions and dealings in the stock exchange. It must also address the reported cases of abuses and sharp practices by some companies in the market. The determination of the stock prices should be deregulated. Market forces should be allowed to operate without any hindrance. Interference in security pricing is inimical to the growth of the market.

Fourthly, the total in the capital market is still a far cry compare to other stock exchange like South Africa and Egypt. Therefore, to increase the number of listed companies there is need to ensure stable micro-economic environment, encourage foreign multinational companies or their subsidiaries to be listed on the Nigeria capital market, improve the listing requirements to the first tier market and ensure tax rationalization in the capital market to encourage questions and public interest in shareholdings. For new issues. For new issues increase the minimum equity capital requirements for companies other than banks, insurance companies and other financial institutions, encourage merger and consolidation in, incentive through income tax policies in favor of public quoted companies and aggressive enlightenment programme to increase awareness of benefits of investing in the stock market and seeking question at the stock exchange

## **References**

- Aminu U. and Anono A. Z. (2012). Effect of inflation on the Growth and Development of the Nigerian Economy can Empirical Analysis, *International Journal of Business and Social Science* Vol. 3. No. 10 (Special Issue - May2012) Pp. 183-191.
- Awogbemi, C.A. and Taiwo, J.K. (2012), Empirical Analysis of the Causes and Effects of Inflation in Nigeria. *Journal of Economics and Sustainable Development* www.J/slt.org.
- Donwa, P. and Odia, J. (2011). Effect of the consolidation of the Banking Industry on the Nigerian capital market. *Journal of Economics* 2 (1), 57-65.
- McKinsey Global Institute (2011), "The emerging equity gap", Growth and stability in the New Investors landscape, McKinsey and Company.
- Taofik M.I and Omosola M.A. (2013). The relationship between stock Return and Inflation in Nigeria *European Scientific Journal* February 2013 Edition Vol. 9, No. 4.
- Ajakaiye. O. and T. Fakiyesi (2009) Global Financial crises. Discussion series paper 8: Nigeria, London Oversea Development Institute.
- Akmal, M.S. (2007) Stock Returns and Inflation: An ARDL Econometric Investigation utilizing Pakistani Data *Pakistan Economic and Social Review* Volume 45(1): 89-105.
- Alagidede, P. and T. Panajiotidis (2006). Can Common Stocks Provide a Hedge Against Inflation Evidence from African Countries. *The Rimini center for Economic Analysis*, WP 10-06.
- Aluko, E.M. (2008). The Global Financial Meltdown: Impact on Nigeria's capital market and foreign reserves, [Http://www.gamji.com/aluko209.htm](http://www.gamji.com/aluko209.htm) (downloaded. (5-6-2010).
- Amihud, Y. (1996), Unexpected Inflation and Stock Return Revised Evidence from Israel. *Journal of money credit and banking*, volume 28, pp. 22-23.
- Anari, A. and J. Kolari (2001). Stock Princes and Inflation *Journal of Financial Research*, 24(4): 587-602.
- Backaert, G. and B.C. Hngstorm (2009). Inflation and the Stock Market: Understanding the Fed Model (June 2009). NBER Working Paper No. W15024. Available at SSRN <http://ssrn.com.abstrat-1413588>.
- Bodic, Zvi (1976). Common Stock as a ledge Against Inflation. *Journal of Finance* 31(2).
- Boudhouch, J. and M. Richardson (1993). Stock Return and Inflation: A Long-horizon Prospective. *American Economic Review*, PP. 1346-1355.