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BROAD MONEY SUPPLY, CREDIT TO PRIVATE SECTOR AND GOVERNMENT EXPENDITURE ON MARKET CAPITALIZATION IN NIGERIA.

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ABSTRACT

This study examined the impact of broad money supply, credit to private sector and government expenditure on capital market performance in Nigeria from 1970-2020. The variables of this study are credit to the private sector, gross domestic product, inflation, and investment (domestic), and broad money supply among other variables. This study employed vector autoregressive model, the impulse response function and variance decomposition. Results suggested that credit to the private sector, had a negative and insignificant impact on capital market capitalization and broad money supply was found to be negative and insignificant. The result further showed that government expenditure had negative and insignificant impact on capital market performance. This study therefore recommended, among others, the need to combine the use of money supply, credit to private sector and government expenditure to promote investment in the stock market.

Keywords: capital capitalization, fiscal policy, monetary policy, stock market
JEL Classification: C32, E44, E52, E62

1.0 INTRODUCTION

Capital market and market capitalization has performed inadequately in the mobilization and allocation of saving, promotion of investment and industrial production. The poor performance of the Nigerian stock market, capital market and market capitalization has resulted among others to unfavourable macroeconomic developments in Nigeria. On a dismal note, the investment profile of Nigeria at 33.11% of GDP in 2021 is comparatively low to emerging market economics. Similarly, Nigeria's debt-to-GDP ratio rose to 23.3% in the QI (Quarter 1) of 2022, compared to the previous year.

Some fiscal and monetary policy measures to realign this negative trend include the Economic Sustainability Plan (ESP); the Medium-Term National Development Plan (MTNDP) (2021-2025), New Petroleum Industry Act and the ongoing judicial review of VAT. On the monetary policy window-examples include Targeted Credit Facility (TCF), Anchor Borrowers' Programme (ABP); the e-Naira, the Naira 4-dollar scheme among others. Some of

the reform measures of the Nigerian capital market include Central Securities Clearing System, and the recapitalization of the stockbroking firms.

Some studies have been carried out on this area. Most of these earlier studies are multi-country with little attention devoted to individual countries like Nigeria. A similar study to this direction is by Nwaogwugwu (2018) that investigated the effects of monetary policy on the stock market in Nigeria using the autoregressive distributed lag (ARDL).

Furthermore, Okpara (2010) used the capital asset pricing model as the theoretical framework in a related study. Similarly, Alugbuo and Ekwugha (2018) used the arbitrage pricing and present value model as the theoretical framework. These different frameworks give different and divergent opinions on the monetary/fiscal policy and stock market performance.

Therefore, this study incorporated governance indicators (government effectiveness and regulatory quality) alongside other control variables in examining the impact of monetary-fiscal policy on stock market performance in Nigeria via the vector error correction model, Granger causality and vector autoregressive. Therefore, the objective of this study is to examine the impact of broad money supply, credit to private sector and government expenditure on stock market performance in Nigeria. The study made use of the vector error correction model (VECM), the impulse response function and variance decomposition for the period 1970 to 2021.

2. RELATED LITERATURE REVIEW

Theoretically, some theories have been put forward on stock market performance. For instance, the capital asset pricing theory was propounded by Markowitz in 1952, under the assumption of the highest stock return and a given level of level of risk. It is premised on the assumption of market segmentation in which the equilibrium condition plays a significant role in establishing the underpinning of the modern portfolio theory. The strength of this theory is on its exposition of equilibrium condition of economic model of portfolio theory; the risk and return of stocks and the market segmentation. However, the weakness of this theory relies on its unrealistic assumption of equilibrium conditions in the stock market.

The Efficient market hypothesis, on the other hand, was introduced by Fama (1970). It is premised under the assumption that financial market (stock markets) are information efficient, such that market prices reflect all available and relevant information, and adjust quickly to reflect new information. The strength of this theory is on the reflection of all available information by the stock market about the securities prices, meanwhile, the weakness of this theory rest solely on the inability of the stock market to provide all available information about stock prices.

Empirically, several studies have also been done the linkage between fiscal policy and monetary

policy on stock market. Examining the impact of money supply on capital market, Chude and Chude (2013) in Babangida &Khan (2021), investigated the effect of money supply and stock market returns using yearly data spanning 1980 to 2012. The study applied an OLS model on All Share Index, and money supply. The results show a long-run relationship between money supply and stock market returns in Nigeria, which results into a small but positive effect of money supply on stock market performance. Much policy inference cannot be drawn from the study using only co-integration approach.

Similar study was carried out by Eneje and Obidike (2019) who examined the response of stock market growth to fiscal policy in Nigeria from 1986 to 2016 using the co-integration and vector error correction model (VECM). The variables used are market capitalization, fiscal policy (government expenditure and government revenue and total government debt; and Treasury bill rate. The results of the study provided evidence of long-run relationship between fiscal policy and stock market growth in Nigeria. Furthermore, debt overhang showed a significant but negative long-run relationship with stock market growth. Based on the impulse response function, the response of stock market of fiscal policy was positive from the first three periods and then negative for the rest of the periods.

In a more recent study, Alugbuo and Ekwugha (2020) examined the relationship between monetary policy and stock market performance in Nigeria between 1981-2018. The technique applied is the ARDL (autoregressive distributed lag). The variables used are all share index, broad money supply, Treasury bill rate, lending rate and consumer price index. The result showed that treasury bill rate had a negative relationship with (all share index) in the current year period but was also found to have a positive and strong impact on ASI in the 1st lag period, based on this result, the study recommended that central bankers and stock market participants should be aware of the relationship between monetary policy and stock market performance in order to better understand the effects of policy shifts.

On the impact of government expenditure on stock market, Urhoghide and Ndubisi (2014) investigated on the effect of fiscal policy on stock market performance in Nigeria from 1981-2012. The vector autoregressive approach was adopted. The variables used are stock market capitalization, government expenditure-GDP ratio, government debt to-GDP ratio. The result of the study revealed that market capitalization does not react immediately to fiscal policy but reacts with a significant time lag. This suggests that there's the need for effective fiscal policy coordination and increased efficiency of institutions that are expected to facilitate the fiscal policy execution. There are series of important omitted variables-inflation, exchange and institutional variables.

On the comparative impact on fiscal and monetary policy on stock market performance, Tawfiq and Acem (2018) explored the impact of monetary and fiscal policy on stock returns in the Jordanian Amman stock exchange from 2006 to 2016. The variables are stock returns, money supply, inflation rate, interest rate, government expenditure, the gross government debt and the government revenue. The study adopted the analytical descriptive approach. It revealed that, there was a statistically significant causal relationship between the stock returns in Amman stock exchange from one hand and inflation and interest rate from another hand. The study is a cross-country and therefore, the outcome may not be generalized from the Nigerian economy.

Following the above, Ozigbu and Ezekwe (2020) analyzed the inter-temporal policy mix and stock market development in Nigeria from 1986 to 2018. The variables used are public expenditure, public debt, Treasury bill rate and broad money supply on the value of stock traded as a ratio of GDP. The technique applied is that of the ECM. The result showed that public spending, and monetary aggregates are the channels which monetary and fiscal policies foster the development of the stock market development in Nigeria. It therefore recommended that policy synergy would help to foster robust and sustained development of the stock market in Nigeria. The omission of institutional variable is a major challenge of the study.

3. RESEARCH METHOD

3.1 Theoretical Framework/Model

This study made use of the efficient market hypothesis which is in line with objective of study based on the assumptions that the stock market prices and returns reflect fully all available information including macroeconomic policy announcement of monetary and fiscal policy at any given period of time. It asserts that markets are informational efficient and as such, no one can consistently achieve returns that is in excess of the average market returns.

3.2 Empirical Model Specification

In attempting to investigate on the relationship between monetary-fiscal policies and capital market performance, this study will adopt with modification the work of Anyamaobi (2018).

$$MCAP = F(CPS, INF, INV, M2, POLSTAM, QGOVT, GEXP, UNE, VTS, GDP) \quad (3.1)$$

Equation (3.1) is formulated to accommodate fiscal policy, the interaction of fiscal and monetary aggregate and institutional framework. This model is specified alongside the objectives of this study and the transmission channels through which monetary-fiscal policies impacts on the capital market performance. Equation (3.2) can be specified econometrically as follows:

$$MCAP = \beta_0 + \beta_1 CPS + \beta_2 INF + \beta_3 INV + \beta_4 M2 + \beta_5 POLSTAB + \beta_6 QGOVT + \beta_7 GEXP + \beta_8 UNE + \beta_9 VTS + \beta_{10} GDP + \mu \quad (3.2)$$

To enhance its elasticity, linearity and easy interpretation, the model is log-linearized except for variables with rates and percentages, in other words, nominal variables will be logged. Therefore, equation (3.3) becomes in log form:

$$LnMCAP = \beta_0 + \beta_1 LnCPS + \beta_2 LnINF + \beta_3 LnINV + \beta_4 LnM2 + \beta_5 LnPOLSTAB + \beta_6 LnQGOVT + \beta_7 LnGEXP + \beta_8 UNE + \beta_9 LnVTS + \beta_{10} LnGDP + \mu \quad (3.3)$$

Where MCAP = Market capitalization; CPS = Credit to the private sector; INF =Inflation rate; INV = domestic Investment; M2 = Broad moneys s; POLSTAB = Political Stability; QGOVT = Quality of governance; GEXP = Government expenditure, UNE = Unemployment rate and VTS= Value of traded shares and GDP= Gross domestic product.

Table 3.1: Theoretical Expectation of the Model Variables

Z	Symbol	Theoretical Expectation	Remark
Market capitalization	MCAP	Constant	Constant
Bank credit to the private sector	CPS	Positive Relationship	> 0
Inflation	INF	Negative	<0
Investment	INV	Positive	> 0
Broad money supply	M2	Positive	>0
Political stability	POLSTAB	Positive,	>0
Quality of Governance	QGOVT	Positive	>0
Government expenditure	GEXP	Positive	>0
Unemployment	UNE	Negative	<0
Value of traded shares	VTS	Positive	>0
Gross Domestic Product	GDP	Positive	>0

Source: Researchers' Compilation (2022).

3.3 Estimation Technique and Procedure

The study made use of the Ordinary Least Square, following its generally accepted assumptions of linearity, normality, autocorrelation and heteroskedasticity. The vector autoregressive error correction model (VECM) was also employed as the variables were found to be co-integrated adjusting for both short-run and long-run changes in variables and deviations from equilibrium. The VECM regression from equation (3.2) can be expressed as follows:

$$\Delta Y_t = \alpha_1 + P_1 ecm_{1t-1} + \sum_{i=1}^{q} \beta_1 \Delta Y_{t-1} + \sum_{i=1}^{q} \vartheta_i \Delta X_t + \sum_{i=1}^{q} Y_1 \Delta Z_{t-1} + \mu_{1t} \quad 3.4$$

$$\Delta X_t = \alpha_2 + P_2 ecm_{2t-1} + \sum_{i=1}^{q} \beta_1 \Delta Y_{t-1} + \sum_{i=1}^{q} \vartheta_i \Delta X_t + \sum_{i=1}^{q} Y_1 \Delta Z_t + \mu_{2t} \quad 3.5$$

Where β_i, ϑ_i and Y_i are the short-run coefficients, Δ is the symbol of difference operator, P is the lag order, ecm_{1t-1} and ecm_{2t-1} are the error correction terms and μ_{1t} and μ_{2t} are the residuals. Further, the ecm_{t-1} is the lagged value of the residuals derived from the co-integrating regression of Y on X in (3.4) whereas the ecm_{2t-1}, is the lagged value of the residuals derived from the co-integration of X on Y in (3.5). The variables were tested for descriptive statistics, correlation matrix, unit root test, Johansen-Juselius co-integration test and other diagnostic tests.

3.4 Nature and Sources of Data

The dataset for this study was a time-series data spanning from 1986 to 2021. They were sourced from CBN Statistical Bulletin, National Bureau of Statistic and World Governance Indicator (WDI).

Table 4.1: Summary of Descriptive Statistics

	CPS	GDP	INF	INV	M2	MCAP	POLSTAB	GEXP	UNE	VTS
Mean	2961878.	423816.0	20.255	866397.1	2224389.	2434040.	-1.731038	3150805.	10.50882	159864.7
Skewness	1.81321	0.9412	1.590195	1.269176	1.31920	1.506115	0.714889	0.924241	0.693671	1.541672
Kurtosis	5.01471	2.5341	4.253475	3.147301	3.40560	3.972098	2.878109	2.050920	2.194428	3.852199
Jarque-Bera	24.3808	5.3273	16.55528	9.158655	10.0947	14.19288	2.917091	6.116652	3.646020	14.49711
Probability	0.000005	0.0696	0.000254	0.010262	0.00642	0.000828	0.232574	0.046966	0.161539	0.000711

Source: EView 10

4. RESULTS PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

4.1. Summary of Descriptive Statistics

From the empirical results presented in Table 4.1, the mean/average values of these variables are mostly positive except the institutional variables (political stability and quality of governance), this implies that institutional variables may not have contributed positively to the development of the capital market performance. The skewness revealed that, with the exception of quality of governance, the other included variables suggested a positive skewness value; this means that the distribution is positively skewed while a negative mean implies that the distribution is negatively skewed. The standard deviation showed that, CPS, GDP, INV M2, MCAP and GEXP, VTS

have high standard deviations suggesting that these variables are more spread out than the others. It implies that the values are above the mean. However, POLSTAB, QGOVT and UNE have low standard deviation suggesting that the values are below the mean.

4.2 Correlation Matrix

Table 4.2 presented the correlation matrix. The result displays the correlation coefficients for the different variables used in this study. From the results presented in Table 4.2, the monetary policy variables (CPS, M2) were positively correlated with MCAP, while INF was negatively correlated as expected. On the other hand, the fiscal policy variables (INV, GEXP) were positively correlated with MCAP. Meanwhile, the institutional variables (POLSTAB, QGOVT) were negatively correlated.

Table 4.2: Correlation Matrix

Variables	MCAP	CPs	GDP	INF	INV	M^2	POLSTAB	QGOVT	GEXP	UNE	VTS
MCAP	**1.000**										
CPS	**0.917**	**1.000000**									
GDP	**0.932**	**0.924039**	**1.0000**								
INF	**-0.31**	**-0.26619**	**0.3208**	**1.0000**							
INV	**0.956**	**0.96699**	**0.9810**	**-0.3138**	**1.000**						
M2	**0.952**	**0.96621**	**6.9825**	**0.3233**	**0.9949**	**1.000000**					
POLSTAB	**-0.59**	**-0.557791**	**-0.7361**	**0.2109**	**-0.6517**	**-0.663190**	**1.00000**				
QGOVT	**-0.51**	**-0.5558**	**-0.6551**	**0.1998**	**-0.6070**	**-0.618458**	**0.526966**	**1.000000**			
GEXP	**0.902**	**0.8387**	**0.9450**	**-0.3518**	**0.9401**	**0.932751**	**-0.6752**	**-0.6264**	**1.000**		
UNE	**0.810**	**0.8494**	**0.8821**	**-0.4496**	**0.8792**	**0.886251**	**-0.6971**	**-0.665776**	**0.82**	**1.00**	
VTS	**0.784**	**0.7517**	**0.8421**	**-0.2924**	**0.8307**	**0.827678**	**-0.60233**	**-0.616354**	**0.887**	**0.72**	**1.000**

Source: EView 10

4.3 Unit Root Test

From the result, it can be concluded that the null hypothesis of no stationarity was rejected. Table 4.4 present the Johansen co-integration test result. The results showed scenarios where two or more non-stationary time series are integrated together in a way that they cannot deviate from equilibrium in the long-term.

Table 4.3: Unit Root Test Results

Variables	Level	Order of Integration	Level	Order of Integration
MCAP	**-6.00744**	**I(1)**	**-7.239457**	**I(1)**
CPS	**-4.50718**	**I(1)**	**-15.91110**	**I(1)**
GDP	**-5.31999**	**I(1)**	**-5.308887**	**I(1)**
INF	**-6.75711**	**I(1)**	**-13.15958**	**I(1)**
INV	**-4.084679**	**I(1)**	**-4.789655**	**I(1)**
M^2	**-4.817589**	**I(1)**	**-4.5523211**	**I(1)**

POLSTAB	**-13.89320**	**I(1)**	**-25.89128**	**I(1)**
QGOVT	**-10.77729**	**I(1)**	**-40.02037**	**I(1)**
GEXP	**-10.27564**	**I(1)**	**-6.419481**	**I(1)**
UNE	**-6.128475**	**I(1)**	**-6.1141.21**	**I(1)**
VTS	**-5.225454**	**I(1)**	**-22.59904**	**I(1)**

Source: EView 10

4.4: Co-integration Test

The study made use of Johansen Co-integration. Table 4.4 presents the Johansen Trace co-integrated test results. From the result, it was suggested that there were 8 co-integrating vectors using the trace statistics. This implies that there existed long

run equilibrium association between capital market performance and monetary-fiscal policy on one hand and institutional variables on the other hand.

Table 4.4: Cointegration Test

Hypothesized No of CE(s)	**Eigenvalues**	**Trace Statistics**	**0.05 Critical Values**	**Prob ****
None *	0.989232	513.2863	197.3709	0.0001
At most 1*	0.977087	359.2263	159.5297	0.0000
At most 2*	0.911835	230.8406	125.6154	0.0000
At most 3*	0.759070	148.2702	95.75366	0.0000
At most 4*	0.643272	99.87974	69.81889	0.0000
At most 5*	0.572886	64.83316	47.85613	0.0006
At most 6*	0.439082	35.90928	27.79707	0.0087
At most 7*	0.318536	16.25112	15.49471	0.0384
At most 8	0.090138	3.211721	3.84166	0.0731

Source: EView 10

4.5 VAR Lag Length Selection

Table 4.5 presents the optimal lag length. From the table, Lag 2 of the AIC – Akaike information criterion was chosen since it has the lowest coefficient of (217.2554) compared to the other lag selection criteria.

Table 4.5: VAR Lag Length Selection

Endogenous variables: GDP CPS INF M2 MCAP POLSTAB QGOVT GEXP UNE VTS **Exogenous variables: C**						
Lag	LogL	LR	FPE	AIC	SC	HQ
0	-4635.34	NA	4.44e+92	244.5444	245.0185	244.7131
1	-4387.95	338.5286	7.33e+99	237.8925	243.5810	239.9164
2	-3874.552	405.0839*	5.18e+81*	217.2554*	228.1582*	221.1345*
Note: * indicates lag order selected by the criterion; LP = Sequential modified LR test statistic (each test at 5% level) FPE = Final prediction error, AIC = Akaike information criterion SC = Schwarz information criterion HQ = Hannan-Quin information criterion						

Source: EView 10

4.6 Forecast Error Variance Decomposition

The forecast error variance decomposition is one of the major tools that can be used the analysis of VECM results. The period 1-10 explains the short-run and long-run periods. 1-4 is the short-run, while 5-10 is the long-run. Table 4.6a showed the variance decomposition of MCAP. From the period, in the short-run (period 1), the main variable MCAP predict itself by 100 percent. In other words, MCAP was strongly endogenous in the short-run. From period 5, the long-run period, the variable MCAP predicted itself from 86 percent to 85 percent. In general, in both the short-run and long-run, the variable MCAP predicted itself strongly endogenous.

Table 4.6b showed the variance decomposing of CPS on MCAP. The result suggested that in the short-run, CPS predicted MCAP from 87 to 68 percent in periods one and two. The variable exhibited a least exogenous influence on MCAP. This implies a strong influence on MCAP. In the rest of the periods particularly in the long-run, CPS predicted MCAP strongly exogenous. This implies a weak influence on MCAP. The result of the variance decomposition implied that INF and GDP in that order predicted MCAP more than the other included variables. This result is supported by the Cholesky variance decomposition (d.f adjusted) factors presented in Figure 4.1

Table 4.6a: Forecast Error Variance Decomposition

Variance Decomposition on MCAP					
Period	S.E	MCAP	CPS	GDP	INF
1	1079695	100.0000	0.00000	0.00000	0.00000
2	1119432	93.25596	1.383273	5.084079	0.276683
3	1305923	90.33652	5.119484	3.735722	0.808277
4	1335498	87.69359	4.928987	6.4836180	0.893800

5	1349067	86.04480	6.013239	6.549898	1.392061
6	1371389	86.16602	6.030647	6.4389591	1.364371
7	1376578	85.51768	6.010567	7.115031	1.356718
8	1378849	85.25802	6.042115	7.3472031	1.352661
9	1387297	85.21032	6.050598	7.399364	1.339719
10	1390450	84.99133	6.083792	7.5906961	1.334179

Table 4.6b: Variance Decomposition on CPS

Variance Decomposition on CPS					
Period	**S.E**	**MCAP**	**CPS**	**GDP**	**INF**
1	474945.8	12.62233	87.37767	0.0000	0.00000
2	590399.6	31.77727	67.61702	0.545854	0.059855
3	894989.5	60.73294	37.79882	1.442140	0.026096
4	977022.7	60.35890	35.00537	4.552818	0.082917
5	1012372	60.42121	34.12912	5.252278	0.197396
6	1060726	61.77537	33.22032	4.8217920	0.283515
7	1089049	61.48298	33.69575	4.593492	0.227779
8	1100747	61.16548	34.04497	4.538321	0.251238
9	1115523	60.76919	34.23065	4.734506	0.265662
10	1125655	60.10388	34.52585	5.094331	0.275933

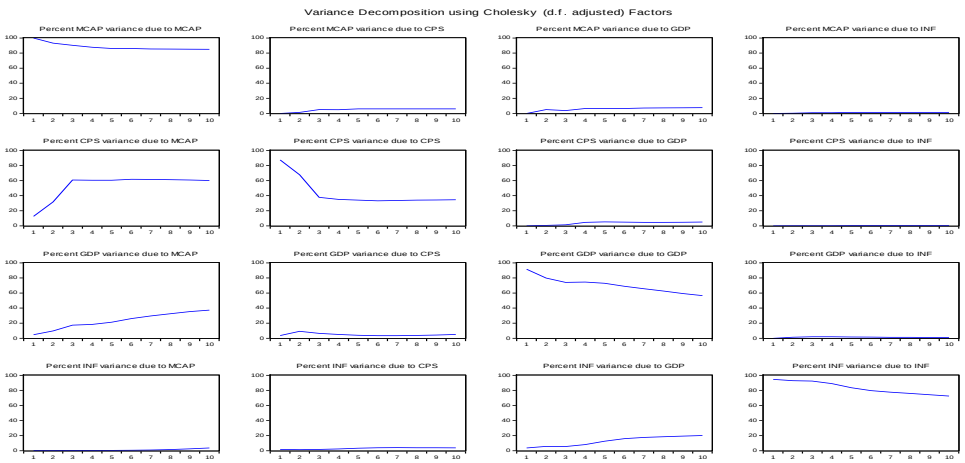


Figure 4.1. Forecast Error Variance Decomposition

Source: EView 10

From the figure 4.1, column 1 showed the prediction of the dependent variable (MCAP) on itself. Column 2 showed the prediction of CPS on itself while column 3 and 4 respectively on the prediction of GDP on GDP and INF on inflation. The prediction of MCAP on itself is in line with the previous explanations.

4.6 Impulse Responses Function

The impulse response function describes the evolution of the variables of interest (capital market performance and monetary-fiscal policy) along a specified time horizon after a shock in a given moment. The Table is presented in the appendix. However, the graphics is presented in Fig.4.2

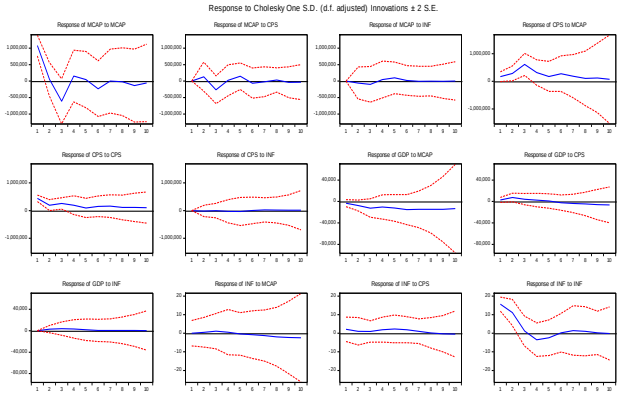


Fig. 4.2 Impulse response function

Source: Eview 10

From the graph as presented in figure 4.2, the two red lines indicated the 95% confidence internal, while the blue line suggested the impulse response function. From the result, a one standard deviation shock to MCAP decreased MCAP negatively from period one to period 3, it increased negatively to period 4, decreased negatively again in period 6. The response reached a steady state in periods 7 and 8 and decreased negatively in periods 9 and 10. The response of MCAP to a one standard deviation suggested that the response of MCAP to CPS increased positively, in periods 1 and 2, the response decreased negatively in period 3 and increased positively in period 5.The response of MCAP to CPS shock stabilized in periods 6 to 7 and 9 and 10. The response of CPS to a one standard deviation shock in MCAP showed a positive increase from periods one to 3, the shock decreased positively from periods 3 to period 6 and reached a steady state from period 7 to 10. Innovation and response are always consistent with intuition, economic theory and a priori. Therefore, from the results of the impulse response, MCAP responds to CPS, i.e. market capitalization responds to credit to the private sector positively while it responds to inflation negatively.

4.7 Vector Autoregressive Estimates

Table 4.7 presents the vector autoregressive estimates. These estimates are econometrically interpreted in line with the Ordinary Least Square results in line with the ceteris paribus assumptions. From the results presented, the relationship between capital market performance and credit to the private sector was negative and insignificant. Hence, a percentage increase in CPS will reduce market performance by 2 percentage point. Broad money supply, proxy for monetary effect in the capital market showed a negative and insignificant relationship with market capitalization. Hence, a percentage increase in monetary policy influence would reduce capital market performance by 0.67 percent. The coefficient of Government expenditure suggested a negative and insignificant relationship with capital market performance, such that a percentage increase in fiscal expenditure would demote the value of capital market performance to a level of 225.

GDP in the current realization is positive although insignificant from the t-statistics. This implies a positive but insignificant relationship between capital market performance and nominal GDP. Thus, a percentage increase in GDP will result in 0.76 percent increase in capital market performance. Most significantly, inflation had a negative relationship with market performance. Investment at the current realization had a negative and insignificant relationship with capital market performance. Hence a percentage point increase in investment reduced market capitalization to about 62 values. The coefficient of POLSTAB in the current realization is negative and insignificant. This implies that institutional framework in relation to promoting capital market performance is weak during the reviewing period, as such a percentage change institutional framework reduced market performance by 3824 values. Meanwhile, the coefficient of quality of governance, another proxy for institutional framework suggested a positive but insignificant relationship with market performance.

The coefficients of unemployment and value of traded stocks were found to be positive but insignificant suggesting the positive relationship between employment generation and capital market and between value of stocks traded. This shows that a positive performance of the capital market would lead to employment generation in the economy on one hand and the positive value of traded stock (bullish) the greater the bullish of the capital market.

Table 4.8: Vector Autoregressive Estimates

Variables	Coefficients	Stand. Error	T-Statistics
GDP (-2)	0.762679	0.97928	0.77882
CPS (-2)	-2.035293	113.175	-0.01798
INF (-2)	627459.7	44.88548	0.13979
INV (-2)	-601.5068	786.914	-0.76439
M2 (-2)	-0.68712	7.92122	-0.08568
POLSTAB (-2)	-382.43527	3.7E+08	-0.10330
QGOVT (-2)	43829310	1.3E+09	0.03459
GEXP (-2)	-225.0565	127.533	-1.76469
UNE (-2)	16290760	2.3E+07	0.70685
VTS (-2)	88.06997	591.365	0.14893
C	-1.99E+08	1.3E+09	-0.15525

R-Squared = 0.972210, Adj. R-squared = 0.931451, Sum Sq. resid. = 1.33E+18, S.E. equation 2.9E+08, P=0.000267, F-statistics = 23.85263, Log Likelihood = -777.6525, Akaike AIC = 42.13961, Schwarz Sc = 43.13078, Mean dependent = 4.81E+08, S.D. dependent = 1.4E+09

Source: EView 10

From the summary statistics, it was suggested that the coefficient of determination stood at 0.97. This implies that the independent variables explained the dependent variable (MCAP) by

97%. From the result presented, the adjusted R-squared is low, implying that the independent variables are well-fitted, and enhances the reliability of our model. Furthermore, investors can gain additional information about what is affecting the Nigerian capital market performance by testing various independent variables of this study model by using the adjusted R-squared. The F-statistic which compares the joint effect of all the variables together. From the result, the value stood about 23.85, which implies a bit fit of the model. This is the overall significance of the model. The log likelihood value of (-777.6) also supports the better fits of our data set. The log-likelihood value ranges from negative to positive infinity.

The diagnostic/model stability results are presented next (autocorrelation, normality and heteroskedasticity). The model stability results are also presented (CUSUM and CUSM squares). Both the residual test and stability tests are called model sensitivity or diagnostic tests.

The diagnostic/model stability results are presented next (autocorrelation, normality and heteroskedasticity). The model stability results are also presented (CUSUM and CUSM squares). Both the residual test and stability tests are called model sensitivity or diagnostic tests.

Table 4.9: Autocorrelation Test

VAR Residual Serial Correlation LM Tests						
Lag	**LRE* Stat**	**df.**	**Prob.**	**Rao F-Stat**	**df**	**Prob.**
1	29.21756	16	0.0225	2.177109	(16,37.3)	0.0253
2	11.40815	16	0.7836	0.684729	(16,37.3)	0.7901
3	31.52469	16	0.0115	2.418192	(16,37.3)	0.0132

Source: EView 10

Table 4.9 presents the autocorrelation test. From the table, lag 1 and 3 are significant while lag 2 was insignificant. The significant values imply the rejection of the null hypothesis at the 5% significance level. Table 4.10 presents the normality test.

Table 4.10: Normality Test

Component	**Jarque-Bera**	**df.**	**Prob.**
1	26.94485	2	2.1346
2	12.68914	2	1.3456
3	13.61733	2	7.123
4	6.125055	2	5.2341
Joint	59.37637	8	

Source: EView 10

Table 4.10 showed the normality test. From the test, the prob (>0.05) implies that the variables are normally distributed and therefore, the rejection of the null hypothesis. Table 4.11 presents the residual heteroskedasticity test.

Table 4.11: Residual Heteroskedasticity Test

Joint test		
Chi-Sq	**Df**	**Prob**
269.0509	240	1.2345

Source: EView 10

Table 4.11 showed significant residual heteroskedasticity at the 10% significance level, this implies that the null hypothesis of no heteroskedasticity was accepted, and the alternative hypothesis rejected. This denoted that the model was homoscedastic. In summary, the results suggest that the model was normally distributed, homoscedastic and serially uncorrelated and the parameters appear to be reliable.

4.8. Discussion of Findings

To investigate comparatively the impact of money supply, credit to private sector and government expenditure on market capital in Nigeria. The results show credit to the private sector had a negative and insignificant impact on capital market performance. On the average, a percentage change in CPS would decrease MCAP by 2.03 percent. This result is in sharp contrast to the findings of Hassan and Kalim (2017) but in line with the findings of Okeya and Dare (2020). Inflation impacted positively, although insignificantly on capital market performance. Inflation and stock market have a close association. If there is inflation, stock market is the worst affected (Jepkemei, 2017).

Impact of inflation on stock market is evident on the fact that if the inflation rate is high, the interest rate is also high. Rising inflation can cause the most damage in fixed income securities. If inflation contributes to increase, the minimum return on stock investment will also be higher which will push market value lower. The coefficient of broad money supply was negative and insignificant, suggesting a negative relationship between market capitalization and monetary policy. The result is

in contrast with Akani, Okonkwo and Ibenta (2016). The author suggested a positive and strong relationship between money supply and market capitalization. The Random Walk hypotheses are among the theoretical explanation for the behavior of the capital market in relation to monetary variables.

From the result, investment and government expenditure as percentage of GDP had negative and insignificant impact with capital market performance. The finding is supported by the study of (Aigheyisi & Edore, 2014). Government expenditure affects the development of the stock market through its effect on the decision and activities of the private sector firms and households (Razin, 1987). All things being equal, the turnover of firms which enjoy high government patronage, may experience a boost, which could lead to

enhanced profitability and impressive dividends for the shareholders of the firms. Improved profitability and impressive dividends enhance the attractiveness of firms listed on the stock exchange, and drive-up demand for them on the trading floor.

On a comparative basis, CPS and M2 had negative and insignificant impact on market capitalization, while the government expenditure had negative and insignificant impact on market capitalization. This is implying further that neither monetary nor fiscal policy has more impact on capital market performance, empirical evidence that have been confirmed by (Nwaogwugwu, 2017; Chatziantoniou et al, 2013) that emphasized the importance of integrating fiscal and monetary interactions on the stock market.

4.9 Implication of Findings

The empirical results have some policy implication as follows:

i) Credit to the private sector had a negative and insignificant impact on capital market performance. This implies a monetary policy action on the part of the Central Bank of Nigeria.

ii) The coefficient of broad money supply was negative and insignificant. This implies that the monetary authorities-CBN must review the banking sector reforms.

iii) From the result, investment and government expenditure had negative and insignificant impact on market performance. This implies that Government needs to review its investment and expenditure policy. This is to improve the profitability of the firms.

The results of the variance decomposition and the impulse response function suggested the predictability of MCAP by itself and by the variables of the model. This implies that shock on the market may tend to reduce its impact on the economy.

5.0 SUMMARY CONCLUSION AND RECOMMENDATION

5.1 Summary of this Study

This study examined the impact of broad money supply, credit to private sector and government expenditure on stock market performance in Nigerian between the periods 1970 to 2021. The study made use of stock market performance (proxy, market capitalization) as the dependent variable on the credit to the private sector, gross domestic product, inflation, investment, broad money supply, political stability, quality of governance, government expenditure, unemployment and value of traded shares. The sources of data for these variables are the Central Bank of Nigeria Statistical Bulletin and National Bureau of Statistics (NBS). The study employed vector autoregressive estimates, the impulse response function and variance decomposition. Variables were found to be integrated of order one (I(I) and the co-integration test result suggested that there are 8

co-integrating equ(s) at the 0.05 level of significance.

The result showed that MCAP predicted itself by 100 percent, this implied that MCAP was strongly endogenous in the short-run while in the long-run, it predicted itself from 93 to 85. Meanwhile, the result implied that INF and GDP in that sequence predicted MCAP more than the other included variables. This result was supported by the cholesky variance decomposition (d.f adjusted) factors. From the vector autoregressive estimates, GDP in the current realization is positive although insignificant. This implies that GDP was positively related with capital market performance.

The relationship between capital market performance and credit to the private sector was negative and insignificant. Investment at the current realization had a negative and insignificant relationship with capital market performance. Hence, a percentage point in investment (public investment) reduced capital market performance by 602 values. Broad money supply suggested a negative and insignificant relationship with market capitalization.

The coefficient of government expenditure suggested a negative and insignificant relationship with capital market performance. The coefficient of unemployment and value of traded stocks were found to be positive but insignificant suggesting the positive relationship between employment generation and capital market and between value of stocks traded. The constant value term suggested a negative value implying a downward drift in the regimes of the capital market performance; this implied bearish trends in the market.

5.2 Conclusion

The first specific objective of this study is to investigate on of broad money supply, credit to private sector and government expenditure on stock market performance in Nigerian. From the result, credit to the private sector, had a negative and insignificant impact on capital market capitalization. The coefficient of broad money supply was negative and insignificant, suggesting a negative relationship between market capitalization and monetary policy. From the result, government expenditure had negative and insignificant impact with capital market performance.

5.3 Policy Recommendation

In the light of the empirical evidence and the policy implications of this study, the following are recommended for policy options.

1. The coefficient of broad money supply was negative and insignificant. Therefore, the CBN should initiate monetary policy easing framework that would continue to translate to stock market performance.
2. Stable money supply should be maintained to drive capital market investment that promotes the efficiency and performance in the stock exchange market. This is in line with the fact that an increase in money

supply will keep the stock attractive to both domestic and international investors.

3. Inflation had a positive but insignificant impact on market capitalization. Therefore, the Central Bank of Nigeria, the monetary authority should target inflation through contraction measures in order to stabilize prices and prevent risk in the stock market behavior.
4. Although the relationship between investment and capital market performance is low, there is the need to broaden the investor's base in the country; this can be achieved through strengthening the ease of doing business in Nigeria.

5.4 Contributions to Knowledge

This study contributes to the extant literature in some ways including: This study examined the impact of broad money supply, credit to private sector and government expenditure on stock market performance in Nigerian. Further contribution includes:

i) Empirically, the inclusion of additional variables-namely; fiscal, monetary and institutional, particularly the institutional variables which most of the empirical studies ignored were considered; ii) the econometric techniques: VECM and impulse response function enhances the robustness of this study.

ii) Theoretically, this study is anchored on the efficient market hypothesis. Different theoretical basis has been used in the past.

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