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Monetary-Fiscal Policy Mix and Stock Market Performance in Nigeria: The Role of Quality of Governance and Political Stability

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Abstract
This study examined the impact of mixed monetary –fiscal policy measures on the performace of capital market in Nigeria. The study made use of annual data on value of stocks traded, credit to the private sector, gross domestic product, inflation domestic investment and broad money supply, political stability and quality of governance among other from 1970-2020. This study employed the vector autoregressive model, the impulse response function and variance decomposition and the result suggested that credit to the private sector and broad money supply had a negative and insignificant impact on capital market capitalization while inflation impacted positively, although insignificant on capital market performance. The result further showed that investment and government expenditure as fiscal variables had a negative and insignificant impact on capital market performance. Quality of governance negatively and insignificantly impacted on capital market performance while political stability had a positive and insignificantly impacted on capital market performance. From the variance decomposition and impulse response function, the result showed that market capitalization was strongly endogenous in predicting itself by about 93 percent in the short-run and about 86 to 85 percent in the long-run. This study therefore recommended among others the need to combine monetary and fiscal policy measures in order to stabilize prices and promote investment in the stock market.
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1. Introduction

A stock market is where existing shares of publicly held companies, financial assets such as bonds, shares, funds (mortgage loans/project loans) and others are tradable either through exchanges or over-the-counter market. It is also a tool in the mobilization and allocation of savings, promotion of investment and industrial production and a linkage between the deficit to the surplus sectors of the economy. The activities of the stock market are controlled and influenced by monetary and fiscal policies.

Fiscal policy deals with government generation of revenue through taxation and other sources as well as the level and pattern of expenditure towards influencing economic activities or attaining macroeconomic goals (CBN, 2023).Monetary policy on the other hand is a deliberate action by the monetary authorities through the Central Bank of Nigeria to influence the quantity, cost and availability of credit/money using direct and or indirect monetary instruments to achieve the desired macroeconomic objectives. The role of government in the formulation and implementing of fiscal and monetary policies is important in the discussion and analysis of fiscal and monetary policies on stock market performance in Nigeria.It is crucial to note that the adjustments of these policies can create an impact on the stock market, as the movements of stock prices are closely interrelated with the health of the economy (Chen, 2010).

The market capitalization in general has not performed optimally in linking the deficit sector to the surplus units despite or in the mobilization/allocation of savings, promotion of investment or industrial production. The poor performance of the Nigerian stock market, capital market and market capitalization has resulted among others to unfavorable macroeconomic developments in Nigeria. At the current period Nigeria is facing some debilitating challenges. For instance, data showed that market capitalization as a measure of stock market performance which stood at 27.9% of GDP in 2007 was 14% in 2022; total stock traded as percentage of GDP which was 6.7% in 2007 stood at 0.2% in 2020 (World Bank, 2023). Inflation rose from 15.92% in March, to 16.82% in April 2022. High exchange rate, trading at 710 Naira per dollar; high interest rate at 32%; low bank credit to the private sectors following unnecessary official documentation which was 38.4% in 2009 fell continuously to 14.2% in 2017 but rose marginally to 17.5% in 2023 (Census and Economic Information Center, 2023).

There is also low industrial manufacturing capacity utilization at an average of 54.61% from 2009 to 2021 compared to 74.99% from 2013 to 2017 in China; 80.60% in Brazil from 2003 to 2022; 73.21% in India from 2008 to 2021 and 81.56% from 1971 to 2022 in South Africa. The savings rate in Nigeria is too low, 32.7% to 44.9% average in the BRICS (Brazil, Russia, India, and China& South Africa). The broad money supply is also another major concern reaching an all-time high of N54 trillion in March, 2023. On a dismal note, the investment profile of Nigeria at 33.11% of GDP in 2021 is comparatively low to emerging market economies. Similarly, Nigeria's debt-to-GDP ratio rose to 23.3% in the QI (Quarter 1) of 2022, compared to the previous year (CBN, 2023).

Several capital market reforms and policy measures (monetary and fiscal) has been implemented by the government. Among these are 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 are Targeted Credit Facility (TCF), Anchor Borrowers' Programme (ABP); the e-Naira, the Naira 4-dollar scheme among others.

Some studies have been carried out to investigate the impact of monetary and fiscal policy shocks on the performance of the stock market either on individual polity or on policy mix. Majority of these were on multi-country with little attention devoted to individual countries like Nigeria. For instance, Nwaogwugwu (2018) investigated the effects of monetary policy on the stock market in Nigeria using the autoregressive distributed lag (ARDL), impulse response function and variance decomposition, analytical tools. step further. Furthermore, Okpara (2010) used the capital asset pricing model as the theoretical framework while in a similarly study, 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. Also, Eneje and Obidike (2019), used vector error correction model approach, Ozigbu and Ezenekwe (2020) used the Granger causality approach to investigate the subject matter, without incorporating the governance indicators in their study.

However, the use of a policy mix, a combination of measures enacted by both fiscal and monetary policymakers is necessary as it can help to strengthen or stabilize the economy as well as considering the fact that the empirical literature has neglected the mixture of the two policies.In addition to the above, the adoption of the efficient market hypothesis, following its relatedness could give a better result. with this study. The current study also examined the state of government in the analysis of the effectiveness of policy mix in the evaluation of the performance of the capital market. This was done by incorporating governance indicators (government effectiveness and regulatory quality) alongside other control variables. Hence, the objective of this study is to investigate the role of quality of governance and political stability in the examination of the impact of monetary-fiscal policy mixes on the performance ofthe capital market.

2. Review of Related Literature

Several theories have looked at the issues of stock market. For instance, the Capital asset pricing theory was 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 Arbitrage pricing theory on the other hand assumes that stocks are exposed to the market risk as well as some of the common systematic risk in the economy which are non-diversifiable, such as interest rate, inflation rate, aggregate output, industry effect and others. The theory further assumes that the market risks as well as several sources of systematic risk in the economy can affect the stock returns.Following the above theories, the efficient market hypothesis was 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.

Empirically, several empirical studies have also been carried out on the role of macroeconomic policies of the performance of the capital market. For instance, on the role of monetary policy, Ekene (2016) evaluated the influence of monetary policy on stock returns in Nigeria. The study made use of variables which include the consumer price index, inter-bank rate, open buy-back, Treasury bill rate, exchange rate and the All Share Index and the vector autoregressive model (VAR).The study showed that monetary variables do not have sufficient efficient on the prices of stock in the equities market. Not minding the useful of VAR, it's a theoretic.

Further study on the relationship between monetary policy and stock market performance in Nigeria was carried out by Alugbuo and Ekwugha (2020) for the period 1981-2018. The ARDL (autoregressive distributed lag) was employed on 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.

In a more recent study, Babangida and Khan (2021) examined the effect of monetary policy on the Nigerian stock market from the period 2013 M_4 to 2019 M_{12}. The study made use of All Share Index and the monetary policy rate, 91-day Treasury bill rate, broad money and exchange rate and inflation in a Smooth Transition Autoregressive (STAR) monthly data model. The current Treasury bill rate was found to have a positive effect

on the stock exchange market.

Examining the role of fiscal policy on the performance of the stock market, Mumtaz and Theodorids (2017) examined the impact of fiscal policy shocks on stock prices in the United States from 1955-1980 using the dynamic stochastic general equilibrium (DSGE) approach on the real per capita spending, inflation, short-term interest rate, 10 years' government bond yield and real stock prices. The results show that after 1980, along with a decline in the fiscal multiplier, the response of stock prices to the same shock became negative and larger in magnitude.

Eneje and Obidike (2019) evaluated 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). They made use 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.

Examining the comparative impact of 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.

Nwogwugwu (2018) empirically examined the impact of monetary and fiscal policy on stock market behaviour in Nigeria from 1986 to 2018. The study made use of the broad money, interest rate, government expenditure, tax revenue, and gross domestic product in an ARDL. The findings showed that money supply and interest rate have statistically significant effects on the stock market in the short and the long run. Similarly, government spending and taxation have statistically significant effects on the stock market in the short and long-run. No institutional framework in the study.

In a more current study, Chen (2021) examined the impact of monetary and fiscal policy on stock market performance in multiple countries from unidentified period. The study identified that monetary policy impacts on the stock market through the interest rate channel, credit channel and investor's expectations. On the fiscal side, its relationship with stock market performance can be explained through either the Keynesian, Ricardianand classical economic theory. The study concluded an indirect relationship between fiscal policy and stock market performance through the channel of money supply.

2.1 Contribution to knowledge and gap in literature

While the various studies have observed that the stock market is a component of a free-market economy and it allows companies to raise money by offering stocks, shares and corporate bonds and allows investors to participate in the financial achievements of the companies, make profits through capital gains, and earn income through dividends. The stock market works as a platform through which savings and investments of individuals are efficiently channeled into productive investment opportunities and add to capital formation. This is a justification for the study.Second, as demonstrated in the empirical literature on monetary and stock market performance, there is no consensus on the impact of monetary policy measure by different variables on stock market performance, measured by various measures. Moreover, there is no agreement on outcome between fiscal policy and stock market performance.

However, majority of these studies that examined either monetary or fiscal variables on stock market performance omitted the institutional variables. Therefore, this current study is justified on the basis of empirical contribution as new variables- institutional and macroeconomic variables were added to the discussion; theoretically, this study utilized the efficient market hypothesis following its relevance to this study and practically, this study would be of great significance to government, policymakers, investment analyst, stock broker, and stock broking firm in various ways and applications. Methodologically, this study is justified through the technique used. It used the vector error correction approaches of the impulse response function and variance decomposition to investigate the shock of monetary and fiscal policy on stock market performance. This is a unique approach to the extant literature.

In addition to the above, the inclusion of institutional variables such as quality of governance and political stability which were not considered by the previous studies particularly for Nigeria but can impact on the performance of fiscal and monetary policies in their impact on the stock market performance was taken into consideration by this current study.

3. Methodology

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 the relationship between monetary-fiscal policies and capital market performance, this study adapted the work of Anyamaobi (2018) to accommodate fiscal policy, quality of governance and political stability.

MCAP = F(CPS, INF, INV, M2, POLSTAB, QGOVT, GEXP, UNE, VTS, GDP) (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 (3.1) can be specified econometrically as follows:

$MCAP = \beta_0 + \beta_1 CPS + \beta_2 INF + \beta_3 INV + \beta_4 M2 + \beta_5 POLSTAB + \beta_6 QGOVT + \beta 7 GEXP + \beta_8 UNE + \beta_9 VTS + \beta_{10} GDP + \mu$ (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 (3.2) becomes in log form:

$LnMCAP = \beta_0 + \beta_1 LnCPS + \beta_2 INF + \beta 3 LnINV + \beta 4 LnM2 + \beta 5 LnPOLSTAB + \beta_6 LnQGOVT + \beta_7 LnGEXP + \beta_8 UNE + \beta_9 LnVTS + \beta_{10} LnGDP + \mu$ 3.3

Where MCAP = Market capitalization; CPS = Credit to the private sector; INF =Inflation rate; INV = domestic Investment; M2 = Broad money supply ; POLSTAB = Political Stability (coups d'etat and revolutions); QGOVT =Quality of governance (captured by corruption, protection of property rights and enforcement of contract); GEXP= Government expenditure, UNE= Unemployment rate and VTS= Value of traded shares and GDP= Gross domestic product.

3.3 Estimation Technique and Procedure

The analytical techniques of this study are the Ordinary Least Square, following its generally accepted assumptions of linearity, normality, autocorrelation and heteoskedasticity. The OLS and the assumptions are necessary for testing the reliability and stability of this study model. The other techniques include the vector error correction model (VECM). If a set of variables are found to have one or more co-integrating vectors then a suitable estimation technique is VECM which adjust to both short-run changes in variables and deviations from equilibrium. Through the VECM, we can interpret long-term and short-term equations. The advantage of VECM over regressive (VAR) is that the resulting VAR from VECM representation has more efficient coefficient estimates (Azali, 2001). 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). To determine the exogenous relationship of the variables, we used the Granger-causality proposed by Granger (1969). A simple form of Granger-causal modeling, which involves two co-integrated and stationary time series {X, Y}, can be causally linked by specifying the following bivariate vector autoregressive (VAR) model:

$$X_t = \sum_{j=1}^{J} \alpha_j Y_{t-j} + \sum_{j=1}^{j} \beta_j Y_{t-i} + + C + £_t \quad 3.6$$

Where C is a constant, £$_t$ is the error term, and J is the number of time lags for {X, Y}. To test the hypothesis of non-causation (exogeneity) from {X} to {Y} is a test of
H_O: $\beta_j = 0$, for j and 1, 2, …, J.
The F-test statistic is calculated by estimating equation (3.65) in both constrained ($\beta_j = 0$, for j = 1, 2, J) and unconstrained forms, and can be written as:

$$F = \frac{(RSS_c - RSS_u)/J}{RSS_u/[T-(2J+2)]} \quad 3.7$$

Where RSS_c and RSS_u are the residual sum of squares from the constrained and unconstrained regressions, respectively; J is the number of restriction and T is the sample size.
Procedurally, the estimation exercise started with the Descriptive statistics; the correlation matrix; the unit roof test and the Johansen-Juseliuscointegration test and the VECM test. Then as a sensitivity analysis, the reliability and stability tests are performed.

3.4 Nature and Sources of Data

The dataset for this study is time-series data from 1970 to 2020. The data were sourced from CBN Statistical Bulletin, National Bureau of Statistics and World Governance Indicator (WDI).

4. Results Presentation, Interpretation and Analysis

4.1.1 Summary of Descriptive Statistics

The summary statistics using the measures of central tendency (mean) and measures of dispersion (standard deviation, skewness, kurtosis and Jarque-Bera presented in the Table 4.1.

Table 4.1: Summary of Descriptive Statistics

	CPS	GDP	INF	INV	M2	MCAP	POLSTAB	QGOVT	GEXP	UNE	VTS
Mean	2961878.	423816.0	20.25553	866397.1	2224389.	2434040.	-1.731038	-1.013826	3150805.	10.50882	159864.7
Skewness	1.813211	0.941204	1.590195	1.269176	1.319200	1.506115	0.714889	-0.478355	0.924241	0.693671	1.541672
Kurtosis	5.014713	2.534124	4.253475	3.147301	3.405606	3.972098	2.878109	1.871580	2.050920	2.194428	3.852199
Jarque-Bera	24.38085	5.327378	16.55528	9.158655	10.09470	14.19288	2.917091	3.100555	6.116652	3.646020	14.49711
Probability	0.000005	0.069691	0.000254	0.010262	0.006426	0.000828	0.232574	0.212189	0.046966	0.161539	0.000711

Note: CPS = Credit to the private sector; GDP = Gross domestic product; INF = Inflation rate; INV = Investment (GFCF); M2 = Broad money supply; POLSTAB = Political stability (proxy for institutional framework); QGOVT = Quality of Governance (proxy for institutional framework); GEXP= Government expenditure; UNE = Unemployment rate and VTS = Value of traded stocks.
Source: EView 10.

Table 4.1 showed that the mean/average values of these variables are mostly positive except the institutional variables.This implies that institutional variables may not have contributed positively to the development of the capital market performance. Also, result from skewness of the variables 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. From the result, CPS and INF have high kurtosis, implying the presence of outliers as compared to the other variables. The probability values of the Jarque-Bera suggested that CPS, INF, M2 and MCAP, GEXP and VTS exhibited no standard normality features while GDP, INV, POLSTAB and QGOVT and UNE exhibited normal distribution.

4.1.1 Correlation Results

Table 4.2 presented the correlation matrix.

Table 4.2: Correlation Matrix Results

Variables	MCAP	CPs	GDP	INF	INV	M^2	POLSTAB	QGOVT	GEXP	UNE	VTS
MCAP	1.000000	0.917112	0.933012	-0.313579							
CPS	0.917112	1.000000	0.924039	-0.261998							
GDP	0.933012	0.924039	1.000000	-0.320892							
INF	-0.313579	-0.2661998	0.320892	1.000000							
INV	0.956414	0.966997	0.981065	-0.31380	1.00000						
M^2	0.952039	0.966214	6.982175	0.323368	0.994999	1.000000					
POLSTAB	-0.591112	-0.557791	-0.736981	0.210709	-0.651727	-0.663190	1.00000				
QGOVT	-0.511095	-0.555840	-0.655031	0.19988	-0.607770	-0.618458	0.526966	1.000000			
GEXP	0.902536	0.838725	0.945500	-0.351882	0.940321	0.932751	-0.675218	-0.6264481	1.0000000		
UNE	0.810133	0.849404	0.882331	-0.449637	0.879732	0.886251	-0.697137	-0.665776	0.821213	1.00000	
VTS	0.784486	0.751743	0.842561	-0.292384	0.830597	0.827678	-0.602336	-0.616354	0.885567	0.724905	1.000000

Source: E-View 11 Version Computation

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. The implications of these results showed that with the exception of inflation, the monetary policy indicators have a very strong linear relationship with capital market performance. Also, the fiscal policy variables were also strongly and linearly related with capital market performance while the institutional variables are not strongly related with capital market performance.

4.3: Unit Root Test

Table 4.3: Unit Root Test Results

Variables	Level	1st/2nd Difference	Order of Integration	Level	PP 1st/2ndDifference	Order of Integration
MCAP	-6.007442	***	I(1)	-7.239457		I(1)
CPS	-4.507184	***	I(1)	-15.91110		I(1)
GDP	-5.319995	***	I(1)	-5.308887		I(1)
INF	-6.7571165	***	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)

Note: *, **, *** denotes rejection of the null hypothesis at the 10%, 5% and 1% significance levels @ (-3.580, -2.930 & -2.600)

Source: EView Version 10

The unit root test results as presented in in Table 4.3 suggest that variables are integrated at order I (1) at the various levels of significance.

4.4 Co-integration test

Table 4.4a: Johansen Co-Integration Test (Unrestricted Co-Integration Rank Test (Trace)

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

Note: Trace test indicates 8 co-integrating equ(s) at the 0.05 level, * denotes rejection of the hypothesis at the 0.05 level and ** MacKinnon-Haug-Michelis (1999) P-values

Source: EView 10

Table 4.4a 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 4.4b: Johansen Co-Integration Test (Unrestricted Co-Integration Rank Test (Maximum Eigenvalue)

Hypothesized No of CE(s)	**Eigenvalues**	**Max-Eigen Statistic**	**0.05 Critical Values**	**Prob ****
None *	0.989232	154.0600	58.43354	0.0000
At most 1*	0.977087	128.3857	52.36261	0.0000
At most 2*	0.911835	82.57040	46.23142	0.0000
At most 3*	0.759070	48.39046	40.07757	0.0045
At most 4*	0.643272	35.04658	33.87687	0.0361
At most 5*	0.572886	28.92393	27.58434	0.0335
At most 6*	0.439082	19.65811	21.13162	0.0793
At most 7*	0.318536	13.0392	14.26460	0.0774
At most 8*	0.090138	3.2117	3.841466	0.0731

Note: Max-Eigen value test indicates 6 co-integrating equ(s) at the 0.05 level of significance; * denotes rejection of the hypothesis at the 0.05 level; ** denotes MacKinnon-Haugh-Michelis (1999) P-value.
Source: EView Version 10.

Table 4.4b represents the maximum co-integration rank test, suggesting also a long-run co-integrating vector association between monetary, fiscal policies and capital market performance in Nigeria within the reviewing period.

4.5 Lag length

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	-4635.344	NA	4.44e+92	244.5444	245.0185	244.7131
1	-4387.958	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

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

4.6 Forecast Error Variance Decomposition

From the VECM, the Forecast Error Variance Decomposition is estimated and the result is as shown in Table 4.6

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

Table 4.6c: Variance Decomposition on GDP

Variance Decomposition on GDP					
Period	**S.E**	**MCAP**	**CPS**	**GDP**	**INF**
1	14517.87	4.741005	3.684645	91.57435	0.000000
2	25991.14	9.739552	9.149762	79.80332	1.307363
3	35296.92	17.48068	6.446162	74.11943	1.953723
4	41786.51	18.45381	4.987939	74.53417	2.024084
5	46832.21	21.32651	4.001580	72.90722	1.764692
6	51676.04	26.15247	3.482784	68.90366	1.461091
7	55658.22	29.54682	3.462595	65.72588	1.264675
8	5883.918	32.51987	3.721201	62.616601	1.142328
9	61562.47	35.32521	4.324249	59.30094	1.049604
10	63667.78	37.35929	5.097286	56.56114	0.982281

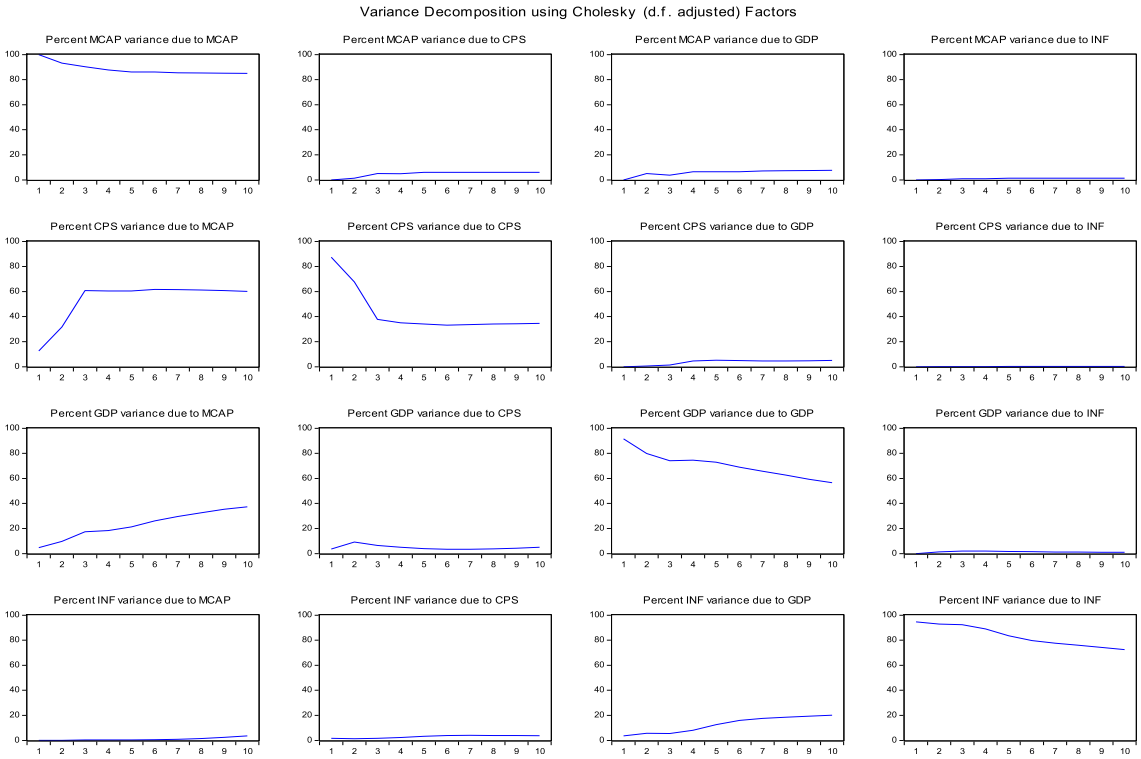
Table 4.6d: Variance Decomposition on INF

Variance Decomposition on INF					
Period	**S.E**	**MCAP**	**CPS**	**GDP**	**INF**
1	16.07969	5.47E-05	1.717208	3.628359	94.65438
2	19.89233	0.067962	1.397485	5.645725	92.88883
3	19.98184	0.383494	1.616549	5.596216	92.40374
4	20.68544	0.438289	2.388398	8.118842	89.05447
5	21.51088	0.439437	3.329095	12.64778	83.58368
6	22.04056	0.534578	3.906968	15.92769	79.63076
7	22.38452	0.821513	4.017868	17.52685	77.63377
8	22.64646	1.524572	3.933297	18.48877	76.01337
9	22.91335	2.488156	3.857	19.35361	74.30111
10	23.19246	3.551822	3.885133	20.11648	72.52657

Note: Cholesky Ordinary – MCAP CPS GDP INF
Source: EView 10

Table 4.6a-d presents the forecast error variance decomposition (FEVD). In Table 4.8a, the variance decomposition of MCAP, MCAP predicted itself by 100 percent in the short-run. In other words, MCAP was strongly endogenous in the short-run. MCAP predicted itself from 93 percent in period two to 88 percent in period 4. From period 5, the long-run period, 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.

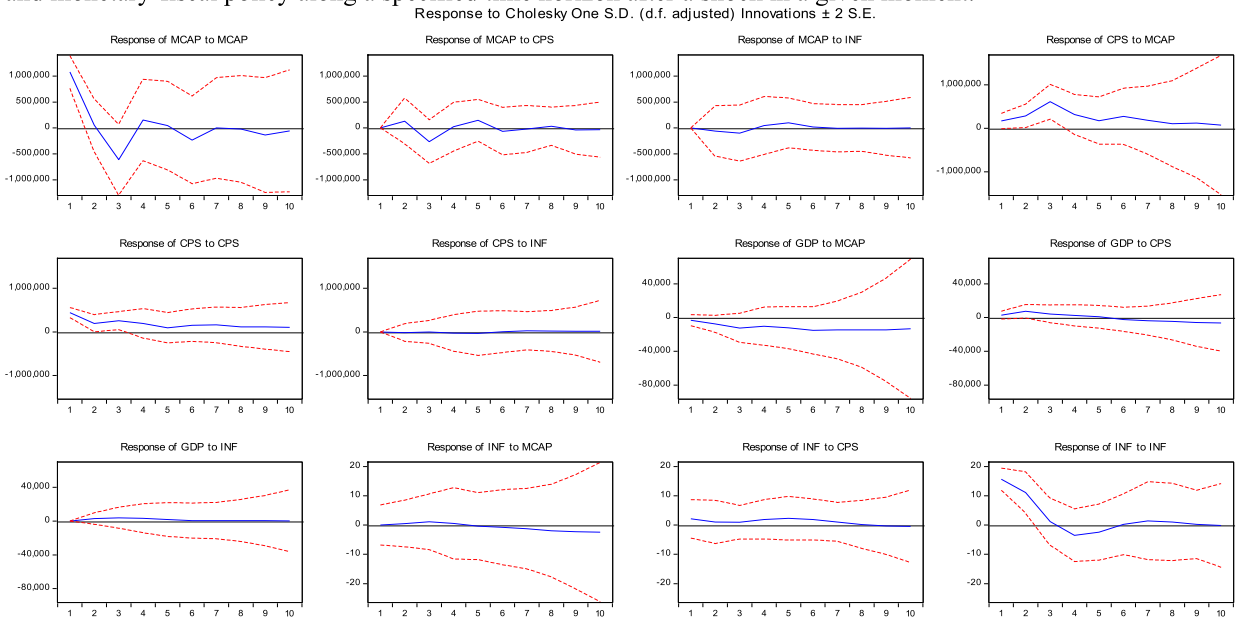
Table 4.6b showed the variance decomposing of CPS on MCAP. The result suggested that in the short-run, CPS predicted MCAP from 87 to 68 percent in periods one and two. The variable exhibited a least exogenous influence on MCAP. This implies a strong influence on MCAP. In the rest of the periods particularly in the long-run, CPS predicted MCAP strongly exogenous. Table 4.6c showed that variance decomposition of GDP on MCAP. From the results, the short-run period suggests GDP predicting MCAP least strongly. The influence decreased in the long-run from period 9 and 10. Table 4.6d suggested that INF predicted MCAP least exogenous in the short-run from period 1 to 4 and early long-run period of 5. However, the influence declined from period 6 to period 10, although the prediction is least exogenous. 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



Source: EView 10

4.7. ImpulseResponse Function

Figure 4.2 presents the impulse responses function. This describes the evolution of capital market performance and monetary-fiscal policy along a specified time horizon after a shock in a given moment.



Source: Eview 10

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 result further showed that a one standard deviation of shock from MCAP to INF suggested a negative steady state in periods 1 to 3. It increased positively in periods 4 to 6 and reached a steady state from periods 7 to 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. A one standard deviation of shock from GDP to MCAP a continuously decrease from periods 1 to 10. However, the shock of INF to MCAP showed a steady state from period one to period 7. It showed a negative decline from 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, ie market capitalization responds to credit to the private sector positively while it responds to inflation negatively. The response of MCAP to GDP remained negative through.

4.8 Vector Autoregressive Result.

Table 4.7: 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

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, 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.

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. 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.

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 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 in 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 coefficient of fiscal policy, represented by 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.

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. The constant value term suggested a negative value, implying a downward drift in the regimes of the capital market performance. Although, the market was characterized by bullish trend, the downward drift also implies bearish trends.

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%. The F-statistic which compares the joint effect of all the variables together shoed that with a figure of about 23.85, the model is well fitted.

4.9 Discussion of Findings

To investigate the impact of monetary-fiscal policy mix on the performance of stock market taking into consideration of the quality of governance and political stability in Nigeria, the outcome of the study revealed that the monetary policy variables that were included in the model impacted on capital market performance in various ways. Credit to the private sector had a negative and insignificant impact on capital market performance. A percentage change in CPS was found to lead to a fall in MCAP by 2.03 percent. This is contrary to the findings of Hassan and Kalim (2017), however in line with the findings of Okeya and Dare (2020). Broad money supply was found to have a negative and insignificant impact on MCAP. This is in contrast with Akani, Okonkwo and Ibenta (2016) who found a positive and strong relationship between money supply and market capitalization.

Following the above results, inflation was found to have a positively although insignificant impact on capital market performance. There is a close association between inflation and stock market. The stock market performs worst in the face of inflation (Jepkemei, 2017). This 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.

On the fiscal policy variables, investment and government expenditure as percentage of GDP had a negative and insignificant impact on capital market performance. This finding is supported by the study of Aigheyisi and Edore, (2014). The development of the stock market is affected by government expenditure 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. This enhances the attractiveness of firms listed on the stock exchange, and drive up their demand on the trading floor. Nwogwugwu, (2017) and Chatziantoniou, Duffy and Filis, (2013) has emphasized on the importance of integrating fiscal and monetary interactions on the stock market.

Analyzing the role of institutional framework on market capitalization in Nigeria, the result as presented in the VAR estimates in Table 4.7 revealed thatpolitical stability (POLSTAB) had a negative and insignificant impact on market capitalization, while quality of governance had a positive and insignificant impact on market capitalization. This is in conformity with the findingsof Hira (2017). The unstable political environment weakens the regulatory bodies and these are transmitted to the equity market. Alesina, Ozler, Roubini, and Swagep, (1992) found that stability of the government would tend to increase the growth of economy. Also,Beaulieu, Cosset, &Essadam, (2005) found that stock return volatility increases as level of firm's exposure towards political risk increases.

The quality of national governance was found to positively impact on stock market performance. This finding is supported by Hamza (2022)udy suggested that the higher the national governance quality is, the weaker the effect of COVID-19 on stock returns will be. Specifically, the negative impact of COVID-19 on stock market returns was more pronounced in countries where the national governance quality index is lower.

5. POLICY IMPLICATION, RECOMMENDATIONS AND CONCLUSION

5.1 Policy implication and Recommendations

This study examined the impact of monetary - fiscal policy mix on stock market performance in Nigerian between the periods 1970 to 2020. The objective of this study is to investigate the role of quality of governance and political stability in the examination of the impact of monetary-fiscal policy mixes on the performance of the capital market. The following are the policy implications d recommendations:

i) The coefficient of broad money supply was negative and insignificant. This implies that the monetary authorities-CBN must review the banking sector reforms. The CBN should initiate monetary policy easing framework that would continue to translate to stock market performance. 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.

ii) Inflation was found to have a positive but insignificant impact of market performance and 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 behaviour.

iii) From the result, investment and government expenditure had negative and insignificant impact on market performance. Although the relationship between investment and capital market performance is low and negative, there is the need to broaden the investor's base in the country. It is also recommended that government should review the policies on investment and expenditure. This can be achieved through strengthening the ease of doing business in Nigeria thereby improving the profitability of the firms.

iv) The coefficient of political stability was found to have a negative and insignificant impact on market performance. Thus, ensuring political stability in the country should be a priority of government. This thus requires that measures to promote and strengthen the regulatory frameworks must be put in place.

v) The quality of governance showed a positive impact on market performance. It is however recommended that the quality of governance should be increased through accountability and reduction in the level of corruption. This will strengthen the institutional frameworks and provide attraction for foreign investors, hence increasing the performance of the capital market.

5.2 Conclusion

The objective of this study is to investigate the role of quality of governance and political stability in the examination of the impact of monetary-fiscal policy mixes on the performance of the capital market. From the result, broad money supply, a monetary variable had a negative and insignificant impact on capital market capitalization while inflation impacted positively, although insignificant on capital market performance.

From the result, investment and government expenditure as fiscal variables was found to have a negative and insignificant impact with capital market performance. The result also revealed that POLSTAB although had a negative and insignificant impact on market capitalization, while quality of governance had positive and insignificant impact on market capitalization, there is still the need to create a conducive institution that will promote the growth and performance of the stock market.

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