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IMPACT OF ECONOMIC GROWTH AND SELECTED MONETARY POLICY ENVIRNMENTS ON CAPITAL MARKET PERFORMANCE IN NIGERIA

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Abstract

Capital market performance is influenced by a variety of factors; consequently, this article examined the impact of certain macroeconomic settings, as measured by the real economic growth (RGDP), real interest rate (INT), and real exchange rate (EXR), on capital market performance in Nigeria. Market capitalization (MCAP) serves as a proxy for capital markets. Estimation was based on annual time series for the variables spanning 1986–2023. The dynamic Autoregressive distributed lag (ARDL) technique was utilized to calculate effects of the regresors on the regresand in both the short and long run. The results showed that the capital market reacts both short- and long-term to shifts in macroeconomic conditions. In light of the results,the study advocated desired economic policy actions that could improve the stable macroeconomic environment for long-term growth and performance of Nigeria's capital markets.

Key words: Market capitalization, Capital market, real economic growth rate, Interest rate, Exchange rate.

1.0 INTRODUCTION

The impact of macroeconomic variables on capital market performance is relevant to policy in both industrialized and emerging market nations. This proved the nexus between macroeconomic variables and capital market operation. It has been a major discourse within the financial economic' circles, investors, policymakers and academics. (Wycliffe and Peter, 2019). This is because, a stable and conducive macroeconomic environment stimulates capital formation which is critical for the development of capital market. Most capital markets of emerging economies according to Augusto and Sergio (2016), are not yet sophisticated due to the fact that, such economies have difficult macroeconomic terrain which is often characterized by policy inconsistency and political instability.

The global financial crisis, which resulted in a capital market collapse, has focused attention on Nigeria's financial industry. This has resulted in an abundance of research and discussions about the capital market and

the variables influencing its expansion and efficiency. However, a detailed knowledge of the macroeconomic factors governing the capital market and their impact on market performance has not received enough attention from academics. It is consequently vital to do research on how macroeconomic factors influence capital market performance. This is critical because a more developed Nigerian capital market will work more efficiently, promoting overall economic growth. Similarly, despite its existence for nearly 50 years, the Nigerian capital market has underperformed other mature capital markets such as the United States and the United Kingdom. It is not even Africa's best performing market. Its level of complexity, the types of instruments it swaps, and its overall operations remain limited. Foreign stock exchanges frequently view African financial markets as underdeveloped and underestimate their capitalization, with the exception of the Johannesburg Stock Exchange. The Johannesburg Stock Exchange (JSE) was one of the largest stock exchanges in the world by market capitalization ($1.007 billion) by the end of 2021. Due to the development of its capital markets, it has become one of the best in the world. The FTSE/JSE Africa Index Series, of which the JSE All-Share index is a component, totaled 59,504.67 base points in 2022. 38,243.2 basis points was the closing value of the All-Share index of the Nigerian Stock Exchange. The Financial Times Stock Exchange Group (FTSE) located in London and the Johannesburg Stock Exchange collaborate to provide the FTSE/JSE Africa Index Series. Conversely, 400 listed companies trade on the JSE's floor, compared to merely 163 listed companies on the NSE that trade in real time online. All products and derivatives traded on the South African exchange are backed by reasonably priced services. These derivatives include commodities, currencies, rights, futures, and options. However, the NSE only trades one derivative: rights; in the near future, it aims to add futures, options, and swaps (NSE Factbook, 2018; ASEA, 2018).ASEA, 2018).

The macroeconomic environment's stability is critical for businesses, and hence for the country's overall competitiveness. Furthermore, it is vital to remember that the capital market must have a major interaction with the economy in order to play a role in it. In general, the capital market thrives in a stable economic environment, as macroeconomic stability ensures people's economic well-being, which serves as a stimulus for savings and market investments. Several elements have been highlighted as potential determinants of macroeconomic stability, including significant GDP growth, low inflation, low interest rates, a robust foreign reserve, and stability of the real exchange rate and exchange relationship. These variables are important drivers of the growth and development of the economy, and variations in any of them will have an impact on the overall performance of the capital market. Throughout the study period, there was variability in the macroeconomic indices selected for investigation, encompassing the GDP, foreign exchange reserves, inflation, interest rate, and exchange rate. Capital market activities and, consequently, performance may be impacted by an unstable macroeconomic environment brought on by changes in any of the chosen macroeconomic factors. The GDP increased at a real annual rate of more than 6% on average between 2004 and 2012. This was a very productive period of progress. The real GDP grew at an average rate of 6.9% in 2019, up from 5.98% in 2018 and barely 7% in 2017. The economy expanded in 2021, for instance, at a robust 7.45% annual rate.

The market capitalization rose from N2.1 billion in 2014 to N14.8 billion in 2016, N9.5 billion in 2017, and N7.3 billion in 2018. All of these advances occurred in the same year. In comparison, interest rates fell from 20.8% in 2004 to 17.61% in 2022. In 2022, the Exchange's ASI fell 17.4% and ended at 28,642 basis points. Inflation increased from 9.1% in 2021 to an average of 15.7% in 2017. However, compared N19.08 trillion at the start of the year to N16.88 trillion at the end, the overall market capitalization decreased by 11.53% (NSE Fact Sheet, 2022).

In 2020, cautious and speculative inclinations ruled the Nigerian capital market due to the nation's economic downturn and the unpredictability of the foreign exchange (Forex) supply. The ASI lost 1,767.6 points in value from its opening trading position on the capital market, 28,370.32 basis points, to its closing value of 26,874.62 points. In 2016, there were 86.21 billion units exchanged and N566.24 billion in turnover value of traded shares, a 4.23 percent and 6.86 percent decline, respectively.

The above demonstrates how volatile the macroeconomic variables considered for this study were throughout. In light of this, the study sought inspiration and used empirical methods to evaluate the potential effects of the chosen macroeconomic variables on the performance of the Nigerian capital market. The specific goals of this study are to assess the influence of economic expansion on the performance of the Nigerian capital market, to investigate the impact of interest rates on that market's performance, and to determine the impact of exchange rates on that market's performance.

2.0 LITERATURE REVIEW

2.1 EMPIRICAL REVIEW

The study reviewed relevant and related empirical works to buttress the issue under discourse. Ross (1986) utilized the multifactor model in the United States to study whether macroeconomic advances constitute capital market risks that are rewarded. The variables included in the test included GDP, inflation, risk premium variations, industrial production, market index, consumption, and oil prices. They discovered that neither the market index, oil prices, nor consumption had been priced by the capital market. However, it has been demonstrated that changes in risk premiums and industrial production are the most important factors driving stock returns. The three maintained that asset price co-movements indicate the presence of an underlying exogenous impact, and that variables such as GDP and inflation, among others, play an important role in determining security returns. The amount of external influence on stock returns in the US capital market could not be ascertained.

Abdul (2018) used cointegration analysis and Granger causality tests are used to investigate into the dynamic relationships that exist between Pakistani stock prices and key macroeconomic variables. The data strongly supported the co-integration of stock prices with the variables under consideration (market interest rate, exchange rate, industrial production, and consumer prices). Every macroeconomic variable had long-term bidirectional causation with stock prices, except for consumer prices, which solely affected stock price fluctuations, according to the analysis's bivariate error-correction model estimates. The paper also revealed evidence that short-term interest rate swings had an impact on stock prices. His summation thus represents a long-term tendency, implying a link between economic health and the capital market, as evidenced by growing share prices. Another issue with the study is that it does not include the GDP, unemployment rate, or inflation rate.

Singh (2021) examined Taiwanese listed companies' stock prices from 2003 and 2018. To ascertain the correlation between share prices and macroeconomic variables such the money supply, GDP, inflation rate, and exchange rate, he employed a linear regression model. His empirical research's conclusions demonstrate that exchange rates and GDP affect returns on all types of portfolios. Conversely, during the course of the research period, large and medium-sized firm portfolios showed a negative correlation between returns and the money supply, exchange rate, and inflation.The study did not reveal how the variables affected small business share prices or the market's large and medium-sized company portfolios' percentage of returns. This is significant because there may be so many small companies in the market that the portfolios of large and medium-sized companies are unaffected by their returns.

Using the impulse response function, Pilinkus and Boguslauskas (2019) examined whether there was a short-term relationship between capital market prices and a few selected macroeconomic variables in Lithuania.The results of the study showed that the short-term interest rate, currency rate, and unemployment rate all had an adverse effect on stock capital market values. While Pilinkus and Boguslauskas did not address this issue, Yui (2008) did not specify the direction of influence in his work either.

Using time series data from 1986 to 2015, Ogunmuyiwa and Asaolu (2017) investigated the effects of macroeconomic variables on average share price (ASP) and whether applying the Granger causality test, the Augmented Dickey Fuller (ADF) test, Co-integration, and the Error Correction Method (ECM) affected the macroeconomic variables (external debt, inflation rate, fiscal deficit, exchange rate, and foreign capital). The dependent variable was the average share price of twenty-five (25) publicly traded Nigerian enterprises engaged in real estate, manufacturing, insurance, and banking. Macroeconomic variables were the exogenous variables. The calculation of the average share price took place between 1986 and 2007. The analysis finds a weak correlation between the average share price and Nigerian macroeconomic indexes. The research was done by FactBook (2008). That Nevertheless, it might be accurate to say that the Nigerian capital market is particularly vulnerable to global macroeconomic issues.

Amadi, Oneyema, and Odubo (2020) used multiple regression analysis to study the functional association between the Nigerian stock exchange's stock prices, inflation, interest rates, exchange rates, and money supply. Their conclusions are consistent with global economics empirical studies as well as theoretical frameworks. They discovered a correlation between some macroeconomic indicators and stock prices. However, their results on the connection between stock prices and inflation were at odds with those of other studies conducted outside of Nigeria.

Mayowa and Ehi (2016) used the ordinary least squares (OLS) technique to model the long-run correlations between some selected macroeconomic variables and stock price movements on the Nigerian stock exchange.

Their estimation results revealed a significant long-run relationship between capital market with the exception of the interest rate, which had a negative association with stock prices during the study period (1984–2013), returns and all other variables taken into consideration (GDP, inflation, money supply, currency rates, and industrial output index).

The long-term equilibrium relationship between the Singapore capital market index (STT), a few chosen macroeconomic factors, and a number of Singapore exchange sector indices, including the finance, property, and hotel indexes, was examined by Maysami, Howe, and Hamzah (2014). The money supply, industrial production, exchange rates, pricing structures, and short- and long-term interest rates are all factors that affect the Singapore capital market, according to the study.

Mohammed (2018) evaluated the influence of changes in three macroeconomic variables (CPI, industrial output index, and foreign remittance) as well as two microeconomic variables. The dependent variable was the Dhaka Stock Exchange's (DSE) all-share price index. The association was estimated using a multivariate regression model computed on standard OLS. The regression coefficient revealed that inflation and foreign remittances have a negative impact.

Kuwornu and Owusu-Nantwi (2021) examined the correlation between the capital market returns of the Ghana stock exchange and the price of crude oil, the currency rate, the 91-day Treasury bill rate (a proxy for interest rate), and the CPI (a proxy for inflation). The Maximum Likelihood Estimation (FIMLE) technique was used to determine all the specifics of the association between the selected variables and capital market returns using monthly intervals from January 1992 to December 2018. The empirical findings showed that the CPI, exchange rate, and rate of treasury bills are significantly correlated with stock market performance. While the exchange rate and treasury bills had a substantial impact on the returns on the stock market, the CPI had a beneficial impact. However, their research showed that the crude oil process does not seem to have a big impact on stock returns.

Between 2007 and 2013, Asekome and Agbonkhese (2015) studied the macroeconomic factors that led to stock market booms, meltdowns, and recoveries in Nigeria. Out of the four components—exchange rate, capacity utilization, inflation, and GDP—only the GDP and money supply factors were statistically significant, according to the Ordinary Least Squares (OLS) regression technique. Macroeconomic measures taken after the crisis, like banking reforms, aided in the stock market's steady recovery, the paper claims.

Consequently, the paper makes recommendations for policies that will support low and stable interest rates, a stable exchange rate, low inflation, and a strong and stable banking sector—all of which will contribute to sustained growth in the real sector.
Utilizing monthly data from 2010:12 to 2014:11, Boachie (2016) examined the effects of interest rate and liquidity growth on the performance of the Ghanaian stock market. With robust linear regression, strong evidence was obtained showing that growth in liquidity, inflation, and the exchange rate all have a major impact on the performance of the Ghanaian stock market. Interest rates, on the other hand, have a negligible, albeit positive, impact on the stock market index over the studied period.

2.2 Theoretical Review

2.2.1 Arbitrage Pricing Theory (APT)

Ross created the Arbitrage Pricing Theory in 1976. Its sole foundation is arbitrage. The process of obtaining a Positive projected return on an overpriced or undervalued security with no additional risk or investment is known as arbitrage in an inefficient market. In an inefficient market, price representation of the available information is not always enough. Inefficient marketplaces can arise from intentional hiding of insider information as well as from delays in the flow of information between locations. Arbitrage opportunities arise from inefficient marketplaces.

Majority of researchers believe that no market is fully efficient and that inefficiencies will always exist to some extent. It's possible that investors lack access to enough information about the assets offered in these capital markets to make an informed decision about what to buy and how much.
Furthermore, hardly many experts keep an eye on the stocks that are traded. In a similar vein, stock markets for young companies—especially those in unexplored industries—may exhibit inefficiencies. The complete opposite of an efficient market, where investors who choose to use it may access vast amounts of information, is an inefficient market.An asset's expected return can be expressed as a linear function of different macroeconomic variables or theoretical market indices, according to the Asset Pricing Theory (APT), a general

theory of asset pricing. The beta coefficient of each factor indicates how sensitive it is to changes. The term "risk factors" refers to certain macroeconomic features that affect asset prices. Put another way, the idea of arbitrage pricing states that assets or portfolios should sell for the same price if they have comparable risk or return. The principle of arbitrage pricing, which predicts an item's expected price, is used by arbitragers to locate and seize priced opportunities.

According to Huberman and Wang (2017), arbitrage in the APT setting entails trading two assets, one of which is mispriced. The arbitrageur sells a relatively costly asset and uses the money to purchase one that is comparatively inexpensive. Arbitrageurs are investors who aim to profit from market pricing inefficiencies by entering into simultaneous deals that counteract each other and generating risk-free profits. An arbitrageur, for example, would look for price differences between stocks listed on multiple exchanges and purchase discounted shares on one while short selling the same number of overvalued shares on another until the prices on the two exchanges converge. This would enable them to make money without taking any risks. The idea states that a synthetic asset or a portfolio of adequately priced assets could be considered correctly priced assets. The macroeconomic dynamics that affect the mispriced asset also affect this portfolio. Once all suitably priced assets have been identified, the arbitrageur builds the portfolio by weighting them so that the portfolio beta coefficient per factor equals that of the mispriced asset (Huberman and Wang 2015).

Burmeister (1994) proposed that the Arbitrage Pricing Theory explains hazardous asset returns, which are thought to follow factor intensity structure.

Huberman further proposed that the APT model is predicated on a number of the following claims.

i. Similar to the Capital Asset Pricing model, only systematic risk is significant when calculating expected returns. However, since the model assumes a single risk factor, there may be multiple non-diversifiable risk factors that are systematic or macroeconomic in nature and thus have an impact on the returns of all stocks.

ii. The expected return of securities is not affected by firm-specific risk because it is difficult to diversify out of any well-defined portfolio. The Capital Asset Pricing Model. It's expected that unusual shocks don't correlate with each asset.

3.0 Research Methodology

3.1 Model specification.

The paper adopted Asekome and Agbonkhere (2018) model which was anchored on the Arbitrage Price Theory (APT), to properly address the objectives of the study, thus the model for the paper is specified as:

MCAP = f(RGDP, INT, EXR)---------- (1)

Where;

MCAP = Market capitalisation

RGDP = Real Gross Domestic Product

INT = Interest Rate

EXR = Exchange Rate

The stochastic form of equation 2 is expressed as;

$MCAP = \beta_0 + \beta_1 RGDP + \beta_2 INT + \beta_4 EXR + \varepsilon$ ---- (2)

Where

β_0 = the intercept or constant term

$\beta_1 - \beta_3$ are the parameter estimates and

ε is the stochastic or white noise error term

The model is transformed to dynamic Autoregressive Distributed Lag (ARDL) which is capable of estimating the long-run and short-run impact of the macroeconomic environments on the performance of capital market in Nigeria. Therefore, the ARDL specification of the stochastic model is specified as:

$$\Delta MCAP_t = \beta_0 + \beta_{1i}\Delta MCAP_{t-1} + \beta_{2t}\Delta RGDP_t + \beta_{3i}\Delta INT_t +$$

$$\beta_{4t}\Delta InEXR_t + \sum_{i=0}^{q}\varphi_5\Delta_{RGDP\,-1} + \sum_{i=0}^{q}\varphi_6\Delta INT_{t-1} + \sum_{i=0}^{q}\varphi_7\Delta EXR_{t-1}$$

$$+\lambda ECM_{t-1} + \varepsilon_t \text{ --3}$$

Where

The lag length is q, the difference operator is Δ, and the serially uncorrelated error term is ε_t. Equation (3) has residuals, and ECM is the speed of adjustment parameter denoted by λ. For additional evidence of a co-integrating relationship, a negative and statistically significant coefficient of the lag error correction term (λ) is anticipated. The long-run portion of equation (3) is represented by the part without the difference operator (Δ), and the short-run section by the part with the difference operator.

3.2 RESULTS AND DISCUSSION

3.2.1 Descriptive Statistics

The study began the analysis with the examination of the descriptive properties of the variables used in the model. The result of the descriptive statistics is presented in Table 1.

Table 1:

Descriptive Statistics of the Variables

	MCAP	RGDP	INTR	EXR
Mean	16741.47	4.394471	22.70938	95.47031
Median	13795.75	4.345171	21.34000	114.8900
Maximum	57990.20	33.73578	36.09000	305.9100
Std. Dev.	14988.91	7.152245	5.037590	79.02169
Skewness	0.711322	1.774476	0.580914	0.562648
Kurtosis	2.884598	10.60889	3.279595	2.865367
Jarque-Bera	0.257135	0.000000	0.385964	0.424740
Sum	535726.9	140.6231	726.7000	3055.050
Sum Sq. Dev.	6.96E+09	1585.793	786.6968	193577.3
Observations	36	36	36	36

Source: from E-views 10 output

According to the descriptive information in Table 1, market capitalisation (MCAP) had an average or expected value of 16,741.47 basis points for the study period, with a standard deviation of 14,988.91 basis

points. The high standard deviation result suggests that the MCAP values are widely scattered over the study period. MCAP has also reached a high of 57,990.20.

The maximum value of 57,990.20 is quite telling, given the capital market was at its peak shortly before the market crisis. Economic growth (RGDP) averaged 4.39% for the research period, with a standard deviation of 7.15%, indicating a broad range of variable values across time, as seen by a maximum of 33% and a minimum of -10%. Similarly, the average interest rate (INTR) throughout time is 22.71%, with a standard deviation of 5.04%, which is relatively low, indicating that the values across time are close to the mean. It reached a high of 36.09% and as low as 12.0% .

Similarly, the exchange rate (EXR) averaged N95.47/1 USD, with a standard deviation of N79.02/1 USD, indicating a broad range of values over time, as evidenced by its maximum value of N305.91/1 US and minimum value of N1.75/1 USD for the period under investigation.
With the exception of RGDP, the skewness of the series is roughly symmetric in terms of normalcy. The predicted value of the kurtosis exists in a normal sequence. Similarly, the probability values of the Jarque-Bera test, which is the difference between skewness and kurtosis, are not significant for all variables, except RGDP and MCAP, showing that the dataset is to a considerable degree regularly distributed.

3.2.2 Test for multicollinesrity

Table 2 displays the results of the VIF. Because neither the mean VIF nor any of the corresponding VIFs of the repressors were larger than 10, the empirical result showed that none of the regressors were highly associated.

Table 2:

Results of the Variance Inflation Factor

Variable	VIF	Tolerance (1/VIF)
RGDP	1.1561332	0.864953
INTR	1.425296	0.701609
LNEXR	6.377663	0.156797
Mean VIF	3.824149	

Source: Computation by Author

3.2.3 Unit root test result

Before the estimation of the model, all the variables of the study were subjected to unit test using Zivot Andrews approach. Table 3

Zivot-Andrews Unit Root Test

	At level			At first difference			
	Statistic	Criti. Value @5%	Time Break	Statistic	Criti. Value @5%	Time Break	
InAMCAP	-3.6435	-4.93	1993	-6.1055**	-4.93	1995	I(1)
RGDP	-4.9459**	-4.93	2003	-5.2591	-4.93	2005	I(0)
INTR	-4.2094	-4.93	2003	-7.7626**	-4.93	1994	I(1)
EXR	-5.4436**	-4.93	1999	-6.3107	-4.93	2001	I(0)

Notes: ** denotes significance at 5% level and Diff. denotes difference I(0) and I(1) implies integration in levels and at first difference respectively.

The results on Table 3 revealed a mixed order of integration for the variables. For the ADF test, three of the variables are integrated of order one [I(1)] and three are integrated of order zero [1(0)]. Similarly, the results of the unit root test showed that three of the variables are I(1) and three are I(0). It is clear from the result that

none of the variables is integrated of order two which indicates the appropriateness of the choice of ARDL approach.

3.3.3 Optimal lag selection test.

The result of the optimal lag selection test is presented on Table 4

Lag	LogL	LR	LPE	AIC	SC	HQ
0	-385.8727	NA	21995.82	27.02571	27.30859	27.11430
1	-296.4422	135.6877	585.1598	23.34084	25.32106	23.96102
2	-251.3534	49.75309	444.9418	22.71403	26.39159	23.86580
3	-169.9422	56.14570*	60.61750*	19.58222*	24.95711*	21.26557*

**** indicates lag order selected by the criterion***

The result of the optimal lag selection using the Akaike Information Criterion (AIC) and Schwarz Criterion (SC) on Table 4, shows that three lag is the optimal lag for the model, hence, the analysis is based on lag three. Furthermore, the study estimated the ARDL bounds test on each of the endogenous equations to examine the cointegration or long-run relationship among the variables and the result is presented on Table 5.

Results of ADRL Bound Test for cointegration

Estimated Models	Optimal Lag	F-stat.	Is there Cointegration?
$MCAP_t = f(RGDP_t, , INTR_t, EXR_t)$	2,3,3,2,2,3	7.092854**	
Critical values	I(0)	1(1)	
1%	4.801	6.436	
5%	3.341	5.312	
10%	3.481	4.316	

Notes: I(0) and I(1) denote lower and upper bounds of the ARDL bounds test respectively. ** shows statistical significance at 5% level.

The results of the ARDL bounds test on Table 5, indicates that the F-statistics for cointegration test is greater than the upper bounds critical values at 5% level of significance. Cointegration is said to exist.

3.3.4 Long-run and short-run estimates

The results of the long-run and short-run estimates of the ARDL model are presented on Table 7 The long-run and short-run estimates are separated by the constant term. The short-run estimates came after the long-run estimates.

Long-run and short-run estimates of the ARDL Model

Dependent variable = MCAP (2, 3, 3, 2, 2, 3)				
Variables	**Coefficient**	**Standard error**	**T-statistic**	**P-value**
Long-run Estimate				
RGDP	0.3722	0.1318	3.4660	0.0004
INTR	-0.2264	0.0632	-1.5878	0.0610
EXR	1.4025	0.5529	-3.3730	0.0087
Constant	0.0895	0.0659	1.3588	0.0013
Short-run Estimates				
RGDP	0.3005	0.0939	-3.1158	0.0143
INTR	0.1104	0.0087	2.5881	0.0422
EXR	0.0866	0.0147	5.7306	0.0004
ECM(-1)	-0.5467	0.0421	-8.2269	0.0002
Adjusted R^2	0.9029			
S.E. of regression	0.4651			
F-Stat	16.524			
Prob. (F-Stat)	0.0002			
Durbin-Watson	2.0411			

***** indicates significance at 5%***

The long-run estimations reveal that RGDP and EXR have a positive and statistically significant long-run impact on the performance of Nigeria's capital markets. That is, a 1% rise in RGDP will result in a long-term increase of around 37.22% in MCAP. This implies that Nigeria's rate of economic growth can have an impact on the long-term success of the capital market.

Similarly, long-run estimations show that a 1% increase in exchange rate corresponds to a 1.40% increase in capital market performance, meaning that an increase in exchange rate may be an incentive to participate in the capital market, particularly for foreign investments. On the other side, the data showed that INTR had a negative effect on MCAP, with a 1% increase in INTR resulting in a -0.34% ceteris paribus, a decline in long-run capital market performance.

The findings indicated that, in the near term, MCAP is positively and statistically significantly impacted by RGDP and INTR. Accordingly, the capital market's performance will grow by 0.30% and 0.11%, respectively, for every 1% increase in RGDP and INTR. However, short-term projections indicate that EXR has a statistically negligible negative impact on Nigeria's capital market performance. For instance, a 1% increase in EXR causes the capital market performance to fall by 0.09%. ceteris paribus. The findings align with those of Singh (2021), Courage (2022), and Mayowa and Ehi (2016).

The coefficient ECM (-1) - 0.5647 is negative and statistically significant at the necessary 5% level, according to the error correction term (ECM) values. This shows that, in the direction of long-run equilibrium, the short-term fluctuation in MCAP is corrected by 56.47%.. With a modified R^2 value of 0.9029, it may be inferred that about 90.29% of all variations in capital market performance can be explained by the explanatory variables' combined influence.

Moreover, a fair degree of precision in the model estimate is indicated by the overall standard error of regression, which is 0.0421 and represents the total errors committed in predicting the relationship. In a similar vein, 2.0136, Durbin-Watson value falls between 1.5 and 2.4, it can be considered free of serial or autocorrelation. Consequently, order one serial correlation is absent from the projected ADRL model in this instance. All of the variables met their a priori expectations, with the exception of the exchange rate, which contradicts its a priori assumption over time. In the short run, it is interest that deviates from its a priori expectations. The simple reason for this is that the capita market's response to interest rate fluctuations is not rapid.

4.1 Diagnostic test

To establish the reliability of the estimates, the stability test of the coefficients and the diagnostic test for the residuals were conducted and presented in the .Table 8:

Result of the Diagnostics Test

Test statistics	F-statistic	P-value
Serial Correlation	2.2515	0.2504
Heteroskedasticity	0.5138	0.4069
Ramsey Reset	2.8256	0.1781
Jarque-Bera	1.6631	0.4729

Source: Author's compilation 2024 using E-views 10.0

The diagnostic tests' results showed that there is a serial correlation and heteroscedasticity issue with the ARCH conditional heteroscedasticity test and the Breusch-Godfrey LM test. Additionally, the model's functional form correctly indicates that the stochastic error term is white noise with a zero mean and constant variance, demonstrating the consistency and dependability of the model's estimates. The results of the Jarque-Bera normal test and the Ramsay RESET test yield probability values greater than 0.05.

Similarly, the Cumulative Sum of Recursive Residuals (CUSUM) and Cumulative Sum Squares of Recursive Residuals (CUSUMSQ). Both are derived from the residuals of the recursive estimation known as recursive residual statistics. The plots of the CUSUM and CUSUMSQ are shown in figure 3 and 4 respectively.

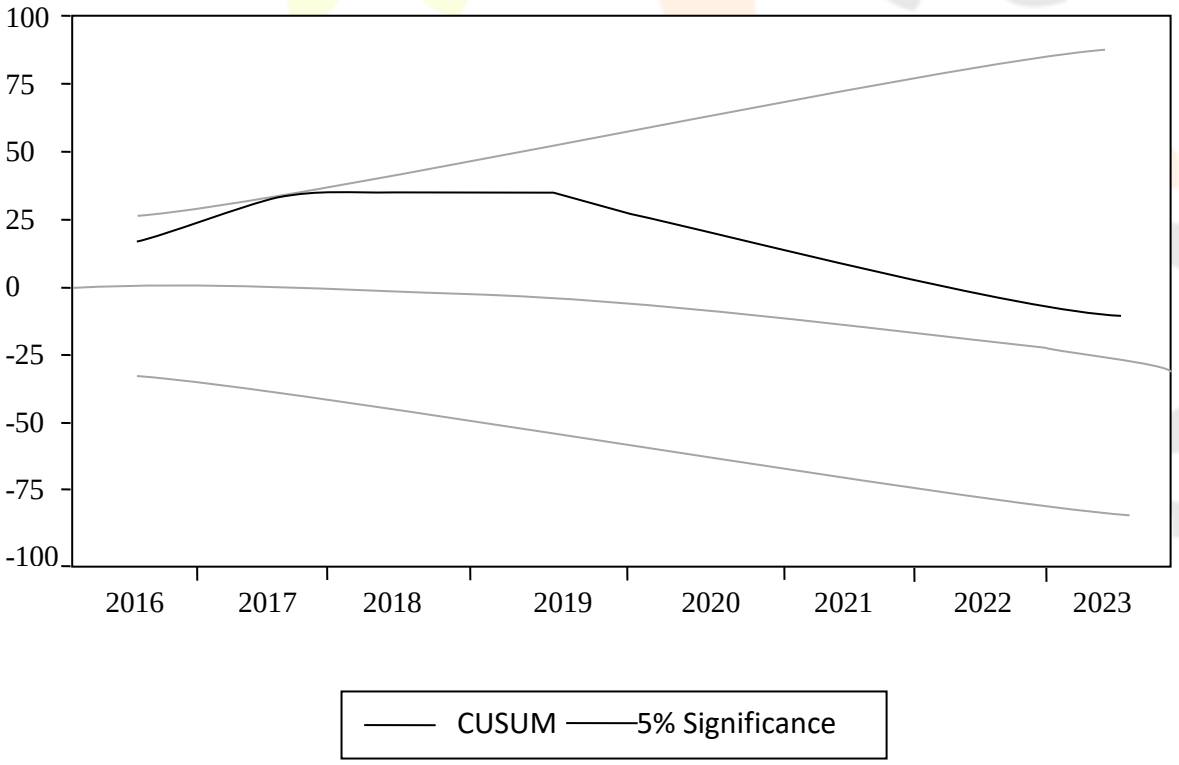

Figure 1: Cumulative Sum of Recursive Residuals (CUSUM)

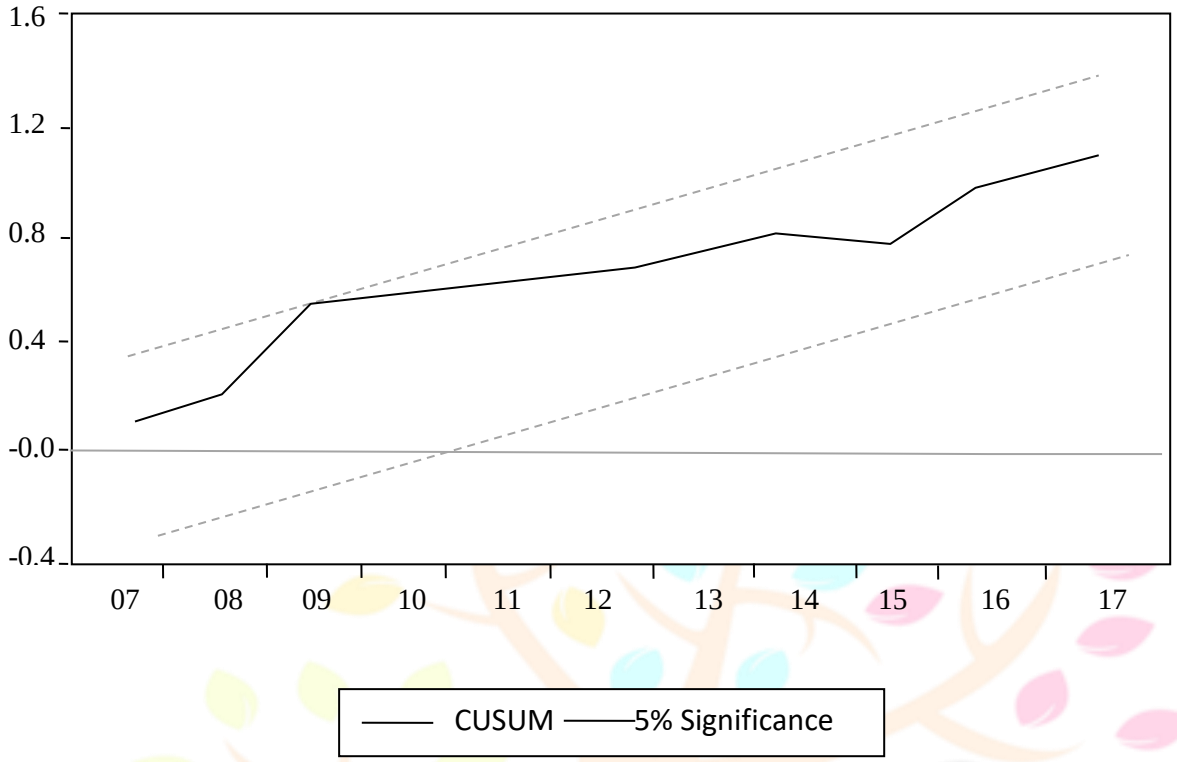

Figure 2: Cumulative Sum Squares Recursive Residuals (CUSUMSQ).

The plots of the CUSUM and CUMSUMSQ in Figure 1 and Figure 2 indicate that the residuals are within the crucial boundaries at 5% level of significance. This signifies that the estimates of the ARDL model for this study are stable, consistent and reliable and therefore can be used for policy issues.

5.0 CONCLUSION AND RECOMMENDATIONS

.5.1 CONCLUSION

The primary objective of the research was to examine how distinct macroeconomic conditions affected the performance of Nigeria's capital market by utilizing time series data spanning from 1986 to 2022. Macroeconomic factors utilized in the study include economic growth, interest rates, and currency exchange rates. Capital market performance is represented by market capitalization.

The study's theoretical foundation, the Arbitrage Price Theory (APT) model, was proven to be relevant by the empirical findings, which also lend credence to the idea that the macroeconomic environment significantly affects how well capital performs in an economy. The thesis—that macroeconomic factors affect Nigeria's capital market performance over the long term, short term, or both—was validated by the article.

5.1.2 RECOMMENDATION

The following recommendations are made in accordance with the study's findings:

Economic strategies designed to stimulate aggregate demand and productivity, resulting in improved capital market performance.

In addition, the Nigerian Central Bank should support an interest rate regime that ensures economic spending and capital market investment. Alternatively, bank interest rates on loanable money should be raised to prevent individuals, corporations, and even governments (both state and local) from getting loans from banks for development objectives.

The research also recommends that the government and monetary authorities implement a solid exchange rate management system and measures that will promote domestic production of export commodities.

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