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Is Inflation A Predictor of Stock Market Performance in Nigeria?

Edori, Iniviei Simeon, Ogbulu, Onyemachi Maxwell, Ejem, Chukwu Agwu,
Department of Banking and Finance, Abia State University, Uturu, Nigeria
*Corresponding Author's email: chukwu.ejem@abiastateuniversity.edu.ng
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Abstract

The research study examined the predictive powers of inflation on stock market performance in Nigeria focusing from 1990 to 2021 inclusive. This study employed secondary data sourced from Central Bank of Nigeria statistical bulletin 2022. The Error Correction Model was used to estimate the relationship between inflation and stock market performance. The results from the empirical test conducted showed that consumer price index, interest rate, exchange rate and oil prices impact insignificantly on the performance of stock market. Based on the findings, the researchers suggested that the Government should provide adequate policy that will seek to achieve single digit inflation rate in Nigeria. This will reduce the cost of living, increase in domestic production, and improve stock market performance. Again, Government should harmonize policy that will attract both local and foreign investment into the stock market.

Keyword: *Consumer Price Index, Oil Prices, Exchange Rate, Interest Rate, All Share Index, ECM*

1.1 Introduction

The stock market is a common feature of a modern economy, and it is reputed to perform functions that promote the growth and development of the economy. The market is an economic institution, which promotes efficiency in capital formation and allocation. It enables governments and industry to raise long-term capital for financing new projects and expanding and modernizing industrial and commercial concerns. Investment in the stock market is long term in nature; hence any development that could affect the stability of the polity or economy usually has a serious impact on the performance of the stock market.

Corrado and Jordan (2002) identify inflationary rate amongst others as a factor that could influence the market performance. Economists have long recognized inflation as one of the major factors that could derail the economy of any country. In Nigeria, the problem of inflation has caused the monetary authority to seek remedies on a continual basis. Therefore, studying the impact of macroeconomic factors such as the rate of inflation on stock market performance has implications for investors and policy makers. The stock market performance influences the performance of the economy and vice versa. According to Alile (1997), the central objective of the stock exchange worldwide remains the maintenance of the efficient market with attendant benefit of economic growth. In recent times there was a growing concern on the role of stock market in economic growth (Levine & Zervos, 1996; Demirguc-Kunt & Levine, 1996; Oyejide, 1994; Nyong, 1997;

Obadan, 1998; Onosode, 1998; Emenuga, 1998; Osinubi, 1998). The stock market is of interest to economists and policy makers because of the perceived benefits to the economy.

The advent of oil boom in Nigeria in the early 1970's, has led to the instability of stock prices. Many factors are said to be the cause of this, some of them are inflow of foreign capital from crude oil sales, budget deficit monetization, and financial markets creation of excess private domestic credit. Inflation rate in Nigeria has also been highly unstable; the high inflationary change was more than 30 percent. This is evident in the high correlation of money supply growth and high inflation because real economic growth is less in real term than money growth. This can be observed from the growth in the money supply and some structural factors such as supply shocks arising from famine, unfavorable terms of trade and devaluation of currency. Furthermore, Structural Adjustment Program (SAP) introduced by the government in the late 1980's also accounted for the increase in price level in the economy. Consequently, inflation in Nigeria has responded to structural changes overtime (Obadan, 1998). One major commodity considered in this study is the capital market stock, i.e., the Stock market. Stocks listed in Nigeria are traded on the floor of the Nigerian Stock Exchange (NSE) while the Securities and Exchange Commission (SEC) is the apex regulatory body which oversees the activities and affairs of the major players on the floor of the Stock Exchange.

1.2 Statement of the Problem

Inflation has a diverse effect across the economic spectrum in any country. For instance, inflation will impact on the cost of conducting business. Inflation affects analysts, investors, economists, and policy makers. A country's economy could totally be derailed by inflation. It affects the stock market which greatly contributes to economic growth. Stock returns volatility disrupts smooth function of Nigerian Exchange Group (NGX) because it reduces the investor' confidence. There has been an upward and downward trend in the NGX share index. The unstable nature of the NGX results in an over sensitivity of stock returns to macro-economic factors. An increase in inflation makes goods expensive because it raises prices. This will lead to a decrease in consumption levels in the economy thereby reducing the profit of companies and their respective share prices at the NGX. This will weaken the performance of stock market. Based on the foregoing literature, the work is focused on the impact of inflation variables (Consumer price index, interest rates, exchanges rates, and oil prices) on stock market performance.

The remaining sections of this study are organized as follows; section two takes care of review of related literature; section three addresses the materials and methods of analysis adopted; section four analyses the data, results, and interpretation while section five handles conclusion and recommendations for policy making.

2. Review of Related Literature

Permeable

This section shall review existing literature related to inflation and stock market in Nigeria. The Review shall be based strictly on our subject matter. Specifically, the empirical review shall be

guided by the objectives of this study. However, the chapter shall be organized under three major subheads namely: Conceptual Review, Theoretical review, and Empirical Review.

2.1 Conceptual Review

Inflation and Stock Market Returns

The proposition of Fisher suggests that the nominal rate ought to change one-to-one with the changes in expected inflation rate. The expected nominal returns therefore contain market assessments of expected inflation rates. This can be applied to all assets under the efficient market's hypothesis, meaning that in an efficient market, an asset will be priced in such a way that its expected nominal return is the sum of the equilibrium expected real return and the correctly assessed expected inflation (Fama, 1970; Fama & Schwert, 1977). Generalizing to the market of common stocks, Fisher's theory predicts a similar relationship between common stocks and inflation, because common stocks, which represent claims on the real assets, should be independent of the changes in commodity prices, displayed as inflation (Bodie, 1976). Therefore, common stocks should also positively move one-to-one with expected inflation and completely hedge against expected inflation (Bodie, 1976, Boyd et al, 1996).

Extending the Fisher hypothesis, one may find that actual nominal returns are composed of expected nominal returns and unexpected nominal returns. The unexpected returns can be further decomposed into the unexpected real returns and unexpected inflation. This extended Fisher hypothesis is reflected in many studies, e.g., Skousen, 2006; Bodie (1976), Jaffe and Mandelker (1976), Fama and Schwert (1977) and Peel and Pope (1985, 1988). Peel and Pope (1985, 1988) provide a general description of the extended theory.

According to their theory, Peel and Pope (1988), the ***ex post*** nominal returns of common stocks are function of the real rate of return (expected and unexpected) and inflation (expected and unexpected). This theoretical relationship between unexpected inflation and stock returns can also be explained by the discounted cash flow model. The intrinsic value of the firms should be retained, if the changes in cash flow, as the changes in prices pass through to the consumers due to changes in inflation in the numerator, will be adjusted by changes in the discount rate to compensate stockholders for the changes in purchasing power in the denominator.

As Campbell and Shiller (1988) explain, while unexpected higher inflation may increase the discount rates which lower returns, and increase future dividends which increase returns, the price elasticity of future cash flows is not necessarily equal to unity. This results in the ambiguous effect of unexpected inflation on the stock prices in the short run. Therefore, the theoretical relationship between stock returns and expected inflation should be equal to one and that between stock returns and unexpected inflation should be equal to one in the long run but ambiguous in the short run (Carrado, 2006; Barro, 1996).

Although the Fisher hypothesis suggests that common stock should hedge against inflation, some studies find contradict results for this hypothesis, for example, Bodie (1976) finds that the stock returns are negatively related to both expected and unexpected inflation, in contrast to the Fisher

hypothesis. Fama and Schwert (1977) also find that common stock returns are negatively related to the expected inflation. Following their work, several empirical studies document mixed results of the inflation-stock returns relationship (Bruno & Easterly, 1995).

At present, even studies which investigate the effect of inflation announcements on stock returns indicate that stock returns are negatively related to inflation associated with the efficient market's hypothesis. This is an anomalous result. A number of studies that examine the effect of inflation on stock prices appear in the United States. Producer Price Index (PPI) announcements and Consumer Price Index (CPI) announcements, as proxy for the inflation surprises, are investigated for the US market and most of these studies report that both PPI and CPI are negatively related to stock returns. After investigating the weekly and daily responses of the US stock returns to the announcements of unexpected inflation, Schwert (1981) finds a weak negative relationship between CPI surprises and stocks and the market reacts slowly to the announcement. Consistent with Schwert (1981) and Cutler et al. (1989) also show a significant negative effect of the CPI news on the stock returns after examining individual and general effects of the macroeconomic on stock prices appear in the United States.

2.2 Theoretical literature

2.2.1 Keynesian theory of inflation

According to Keynesian, inflation can be caused by an increase in demand and or increase in cost. In response to the deficiencies of the Classical theory, Keynes developed a new theory of inflation. This theory stressed rigidities in the economy, most importantly in the labour market. This source of rigidity was that workers were reluctant to reduce their nominal wages. Rigidity was that firms did not always change their prices as a response to changes in demand, often increasing output instead. Putting these rigidities (and others) together one gets what is called a fixed-price model. In this model there are several ways of defeating inflation. The basic cause of inflation is excess aggregate demand and hence the most obvious cure is to reduce aggregate demand. The policy instruments available to do this could be tax increases or cuts in public spending.

Another possibility in this model is to reduce the rigidities. Demand-pull inflation is a situation where aggregate demand persistently exceeds aggregate supply when the economy is near or at full employment. Aggregate demand could rise because of several reasons. A cut in personal income tax would increase disposable income and contribute to a rise in consumer expenditure. A reduction in the interest rate might encourage an increase in investment as well as lead to greater consumer spending on consumer durables. A rise in foreigners 'income may lead to an increase in exports of a country. An expansion of government spending financed by borrowing from the banking system under conditions of full employment is another cause of inflation Adeniji, (Keynes, 1930).

An increase in demand can be met initially by utilizing unemployed resources if these are available. Supply rises and the increase in demand will have little or no effect on the general price level at this point. If the total demand for goods and services continues to escalate, a full employment

situation will eventually be reached and no further increases in output are possible. This leads to inflationary pressures in the economy.

Demand-pull inflation is caused by excess demand, which can originate from high exports, strong investment, a rise in money supply or government financing its spending by borrowing. If firms are doing well, they will increase their demand for factors of production. If the factor market is already facing full employment, input prices will rise. Firms may have to bid up wages to tempt workers away from their existing jobs. It is most likely that during full employment conditions, the rise in wages will exceed any increase in productivity leading to higher costs. Firms will pass the higher costs to consumers in the form of higher prices. Workers will demand higher wages, and this will add fuel to aggregate demand, which increases once again. The process continues as prices in the product market and factor market are being pulled upwards.

Keynesian theory of cost-push inflation attributes the basic cause of inflation to supply side factors. This means that according to Keynesian, rising production costs will lead to inflation. Cost-push inflation is usually regarded as being primarily a wage inflation process because wages usually constitute the greater part of total costs. Powerful and militant trade unions that negotiate wage increases in excess of productivity are more likely to succeed in their wage claims the closer the economy is to full employment and the greater the problem of skill shortages (Caban, 2008).

2.2.2 The Efficient market models

Based on the restrictive capital market assumptions with respect to market conditions and investor behaviour, the efficient market model makes specific postulations regarding the behaviour of stock prices to which we now turn. The efficient market model is, therefore, the focal point of these recent market developments. The efficient market model simply states that in an efficient market, stock prices adjust so quickly to new information that, Security prices fully reflect the available information about the affected securities, Successive changes in security prices are random or independent.

Essentially, the feature of independence of successive price changes conforms to the statistical property of a random variable. Hence, the theory has been characterized as the random –walk-hypothesis of stock market prices. Three specifications of the efficient market model (EMT) have been identified to include the weak form hypothesis (random walk hypothesis proper), the semi-strong hypothesis and the strong form hypothesis (Fama. 1970).

2.2.3 The weak form (Random Walk) hypothesis

The random walk hypothesis simply states that the current market prices of any security fully reflect the information content of its historical sequence of prices. Consequently, knowledge of the historical prices of a security and/or detailed analysis based on such knowledge would not enhance the quality of investment decisions. This assertion is a complete negation of the methods and spirit of technical analysis. If the sequence of prices cannot be used to predict future trends, there would be no value in charting historical prices or in all other procedures adopted by the technicians (Fama, 1970, Fama, 1981).

2.3 Empirical literature

The relationship between stock market performance and inflation has captured the interest of researchers and practitioners alike particularly since the twentieth century. The foundation of the discourse is the Fisher equity stocks declaration. The hypothesis, equity stocks represent claims against real assets of a business; and as such, may serve as a hedge against inflation. If this holds, then investors could sell their financial assets in exchange for real assets when expected inflation is pronounced. In such a situation, stock prices in nominal terms should fully reflect expected inflation and the relationship between these two variables should be positively correlated ex ante (Ioannides & Kantonikas, 2008). This argument of stock market serving as a hedge against inflation may also mean that investors are fully compensated for the rise in the general price level through corresponding increases in nominal stock market returns and thus, the real returns remain unchanged. Since equities are claims as current and future earnings, then it is expected that in the long run as well, the stock market should equally serve as a hedge against inflation.

Laopodis (2006) examines the dynamic interaction among the equity market, economic activity, inflation, and monetary policy. Researcher investigates the first issue concerning the role of monetary policy. Advance econometrics using co integration, causality and error methods using bivariate and multivariate Vector Autoregressive (VAR) or multivariate Vector Error-Correction (VEC) models. With bivariate results, they found that the real stock returns-inflation pair weakly support negative correlation between stock market and inflation, meanwhile stock market can hedge against inflation. On the other hand, bivariate results claim a negative and unidirectional relationship from stock returns to FED funds rate in the 1990s but a very weak one in 1970s. With multivariate, they found strong support of short-term linkages in the 1970s along with the same unidirectional linkage between the two in the 1990s. This showed that stock returns do not respond positively to monetary easing, which took place during the 1990s, or negatively to monetary tightening. There was no consistent dynamic relationship between monetary policy and stock prices.

Adamu and Gbande (2016) applied OLS to investigate the effect of inflation on stock returns of the stocks listed on the Nigerian Stock Exchange. Descriptive research design was used in the study and secondary data were collected from CBN statistical bulletin and NSE for the purpose of analysis. The study found that an inflation rate has a significant positive effect on stock returns on the NSE. This finding suggested that stock market returns may provide an effective hedge against inflation in Nigeria. It is recommended that policies geared at controlling inflation should take into cognizance the role of monetary policies as these will go a long way in further deepening of the stock market.

In a study Uwubanmwen and Eghosa (2015) examined the impact of inflation rate on stock returns in the Nigerian Stock Market and to determine whether inflation rate had any effect on stock returns in Nigerian stock market and to ascertain whether stock prices effectively predict stock returns in the Nigerian stock market, using monthly data covering the period 1995 to 2010. Secondary data were extracted from the Nigerian Stock Exchange Fact Book and the Central Bank of Nigerian Statistical Bulletin. The result indicates that the inflation rate has a negative but weak

impact on stock return; hence, inflation is not a strong predictor of stock returns in Nigeria. The inflation variable appears to significantly respond to stock price changes.

3. Materials and Methods

3.1 Preamble

The research work is anchored on inflation and Nigerian stock market performance between the period 1981 – 2021. This section is divided into two main parts namely, sources of data and model specifications.

3.2 Sources of Data

The study employs secondary data sourced from CBN statistical bulletin. Econometric techniques such as least squared, unit root, co-integration and diagnostic test will be adopted to determine the nexus between inflation and stock market performance with the time.

3.3 Model specification

Econometric model adopted for the research work is focus on linear regression model and in conforming to the classical linear regression assumptions.

$$ASI = \beta 0 + \beta 1INF + \beta 2EXR + \beta 3INTR + \beta OIP + \pi$$

Where,

ASI – all share index, INFL – inflation, EXR – Exchange rate, INTR – Interest rate, OIP – Oil prices, π – Stochastic term

3.4 Apriori Expectation

We expect mixed reactions from the empirical test to be conducted, where inflation is positively or negatively or insignificantly impacting on the stock market performance.

3.2.2 Method of data Analysis

Error correction model or equilibrium correction model

The equilibrium correction or error correction model is used to combine the first differenced and lagged levels of co-integrated variables. The model measures the proportion of last period's equilibrium error that is corrected for and describes the speed of adjustment back to equilibrium. Symbolically, the model $yt = \beta 1xt + \beta 2\ (yt{-}1 - \gamma\ xt{-}1) + ut$ is known as the error correction model or equilibrium correction model while $yt{-}1 - \gamma\ xt{-}1$ is known as the correction model. Provided that yt and xt are co-integrated with co-integrating coefficient γ then $(yt{-}1 - \gamma\ xt{-}1)$ will be I (0) even though the constituents are I(1).

Bera and Jargue Normality

BJ uses the property of a normally distributed random variable that the entire distribution is characterized by the first two moments – the mean and the variance. The standardized third and fourth moments of a distribution are known as skewness and kurtosis. Skewness measures the extent to which a distribution is not symmetric about its mean value and Kurtosis measures how fat the tails of the distribution are. A normal distribution is not skewed and is defined to have a coefficient of Kurtosis of 3. A normal distribution will thus have a coefficient of excess Kurtosis of zero. A normal distribution is symmetric and said to be mesokurtic. Bera and Jargue (1981) formalize these ideas by testing whether the coefficient of Skewness and the coefficient of excess Kurtosis are jointly zero. Denoting the error by u and their variance by σ^2, it can be proved that the coefficients of skewness and Kurtosis can be expressed respectively as:

$$B_1 = \frac{E(u^3)}{(\sigma^2)^{3/2}} \quad \text{and} \quad b2 = \frac{E(u^4)}{(\sigma^2)^2}$$

The Kurtosis of the normal distribution is 3 so its excess Kurtosis (b_2 -3) is zero.

The Bera – Jargue test statistic is given by

$$W = \frac{T\,(b^2_1 + (b_2 - 3)^2}{6 \quad + \quad 24}$$

Where T is the sample size, the test statistics asymptotically follows a $x^2(2)$ under the null hypothesis that the distribution of the series is symmetric and mesokurtic.

Unit Root Stationarity Tests:

The stationary of series is important to assess unit root test of the time arrangement. As needs be, the Augmented Dickey Fuller (ADF) test is utilized. The choice is to dismiss the invalid speculations "if the ADF test measurements is totally higher than the Mackinnons Critical Values at 1%, 5% and 10% levels of centrality" (Brooks, 2009). The stationarity of series that will be used in the study will be determined with the estimation of unit root. Dickey Fuller (DF) unit root test might be estimated from the following forms of equations. Based on the following regression equation.

Where:

y_1 is the employed variable, a_o represent the constant, a_1 is the slope, Δ_o is the first order level of differencing, n is the number of time lags from the endogenous variable while e is representing the error term.

Hypothesis:

H_{01}: There is unit root in the series.

H_{A1}: The series are stationary

The hypothesis is tested based on tau-statistic of the coefficient

4. Data Analysis and Interpretation

Preamble

This section shall review the following subheading, data analysis and discussion of findings. The stock market performance used is all share index (ASI), while inflation estimators are exchange rate (EXCR), Inflation proxied by consumer price index (CPI), Interest rate (INTR) and oil prices (OP). The period covers between 1990 to 2021.

4.1 Trend Analysis of Data

The trend analysis of variables in figure I below revealed that variables trended upward and downwards with periods of peak and trough suggesting the expected non-stationarity of the variables.

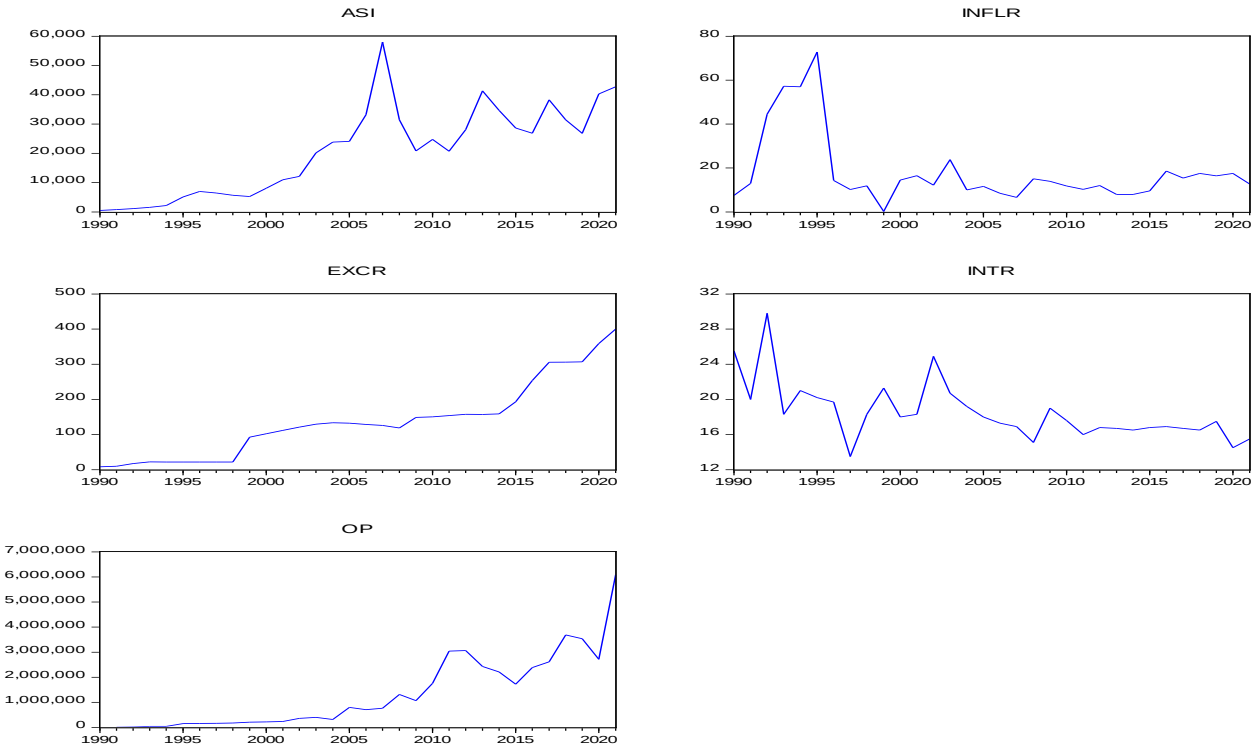

Figure 1: Trend Analysis of ASI, INFR, EXCR, INTR and OP

4.2: Description of Variables

Table 1 below is the descriptive statistics revealing the distributional features of all the variables employed in this study. The high values of the standard deviation as well as wide differences between the values of the minimum and maximum of the variables suggested high variability recorded within the scope of this study. Excess Kurtosis were recorded in INFR, INTR and OP, which is excess from the normal (greater than 3), an indication of a leptokurtic distribution, while ASI and EXCR have kurtosis lower than normal, i.e., platykurtic distribution. All the variables recorded positively skewed distribution. All the variables recorded p-values of Jarque-Bera that are significant at 5% at 95% confidence level, suggesting abnormal distribution, except EXCR that is otherwise.

Table 1: Descriptive Statistics for ASI, INFR, EXCR, INTR and OP

	ASI	INFLR	EXCR	INTR	OP
Mean	20716.62	18.09688	137.9141	18.53125	1326466.
Median	22335.84	12.85000	129.0050	17.80000	739454.9
Maximum	57990.20	72.80000	399.9600	29.80000	6087845.
Minimum	513.8000	0.200000	8.040000	13.50000	6073.100
Std. Dev.	15162.86	16.26513	106.8883	3.316278	1475960.
Skewness	0.334695	2.176411	0.785065	1.576592	1.281359
Kurtosis	2.326764	6.784016	2.946869	5.925579	4.389560
Jarque-Bera	1.201772	44.35444	3.290838	24.66878	11.33121
Probability	0.548326	0.000000	0.192932	0.000004	0.003463
Sum	662931.7	579.1000	4413.250	593.0000	42446923
Sum Sq. Dev.	7.13E+09	8201.190	354178.3	340.9288	6.75E+13
Observations	32	32	32	32	32

4.3 Stationarity Properties of the Variables

This study applied Augmented Dickey Fuller (ADF) unit root test as shown below in table 2 to check the appropriate technique to use in model estimation As revealed all variables did not attain stationarity at level, indicating non rejection of the null hypotheses that all the variables do not have unit root at level, instead are stationary at first difference or differenced once to be stationary, suggesting rejection of null hypotheses that all variables do not have unit root at first difference. INFR and INTR are both integrated at level and at first difference, but with ADF statistics more negative in first difference.

Table 2: ADF Unit Root Test at Level and First differenced Data

Variables	**Maxlag**	**Level**	**1st Difference**	**Remarks**
		ADF Statistics/P-value	**ADF Statistics/ P-value**	
ASI	7	-1.596273 (0.4725)	-5.917033 (0.0000)	@1(1)
INFR	7	-4.348199 (0.0020)	-5.963511 (0.0000)	@1(1)
EXCR	7	1.842961 (0.9996)	-3.765231 (0.0079)	@1(1)
INTR	7	-4.397134 (0.0015)	-7.064710 (0.0000)	@1(1)
OP	7	0.5 76540 (0.9867)	-4.686355 (0.0008)	@1(1)

4.4 Co-integration and Equilibrium Test

This is to know if there exist equilibrium relationships between the variables; ASI, INFR, EXCR, INTR and OP. Table 3 below revealed that unrestricted rank tests (Trace and Maximum Eigenvalue) co-integrations are at "None", suggesting one co-integration equation respectively at 5% level of significance among the variables. This shows that a long run relationship exists between the dependent variable stock performance proxied by ASI and inflation variables.

Table 3: Johansen Cointegration Test

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.886759	109.7834	69.81889	0.0000
At most 1	0.558620	46.61446	47.85613	0.0651
At most 2	0.352930	22.89684	29.79707	0.2512
At most 3	0.201628	10.27311	15.49471	0.2603
At most 4	0.121082	3.742852	3.841466	0.0530
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.886759	63.16891	33.87687	0.0000
At most 1	0.558620	23.71762	27.58434	0.1449
At most 2	0.352930	12.62373	21.13162	0.4874
At most 3	0.201628	6.530254	14.26460	0.5461
At most 4	0.121082	3.742852	3.841466	0.0530

4.5 Estimation of Relationship between Inflation and Stock returns

Table 4 below shows the Ordinary Least Square (OLS) estimated model for the relationship between inflation variables and stock returns. From the table, F-statistic p-value is highly significant showing there is overall significance, but Durbin-Watson statistics show presence of autocorrelation. and invalid for comparison. Therefore, cannot be used for further analysis and policy formulation, hence proceed to Error Correction Mechanism (ECM) as shown in table

Table 4: Ordinary Least Square (OLS)

Dependent Variable: ASI		
Method: Least Squares		

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INFLR	-154.2529	115.7888	-1.332192	0.1939
EXCR	79.91989	34.82657	2.294796	0.0297
INTR	-1147.859	635.4188	-1.806461	0.0820
OP	3.77E-05	0.002524	0.014956	0.9882
C	33707.23	13077.14	2.577568	0.0157
R-squared	0.637574	Mean dependent var		20716.62
Adjusted R-squared	0.583881	S.D. dependent var		15162.86
S.E. of regression	9781.148	Akaike info criterion		21.35690
Sum squared resid	2.58E+09	Schwarz criterion		21.58592
Log likelihood	-336.7104	Hannan-Quinn criter.		21.43282
F-statistic	11.87448	Durbin-Watson stat		1.040710
Prob(F-statistic)	0.000011			

The ECM results in table 5 revealed that none of the inflation variables employed in this study significantly impact stock returns The Adjusted R-squared is 10.8 indicating that inflation variables only explain 10.8% of the total variation in the stock market performance proxied by ASI. This result is valid and reliable for further investigation since the problem of autocorrelation is not bordered because Durbin-Watson (DW) stat is 1.990758 in this study. Again, is correctly signed with negative coefficient and significant probability value.

Table 6: Error Correction Mechanism Test

Dependent Variable: D(ASI)				
Method: Least Squares				
Date: 10/04/22 Time: 21:05				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D (ASI (-1))	0.174805	0.232506	0.751828	0.4614
D (INFLR (-1))	105.6009	119.9293	0.880526	0.3896
D (INFLR (-2))	41.00598	117.7530	0.348237	0.7315
D (EXCR (-1))	29.81447	80.09966	0.372217	0.7139

D (EXCR (-2))	-95.68973	97.98522	-0.976573	0.3411
D (INTR (-1))	112.0269	555.2595	0.201756	0.8423
D (INTR (-2))	-87.11016	534.0350	-0.163117	0.8721
D (OP (-1))	0.001225	0.004417	0.277350	0.7845
D (OP (-2))	0.007863	0.003962	1.984807	0.0618
ECM (-1)	-0.529533	0.217072	-2.439434	0.0247
R-squared	0.395060	Mean dependent var		1434.788
Adjusted R-squared	0.108510	S.D. dependent var		9048.878
S.E. of regression	8543.839	Akaike info criterion		21.21061
Sum squared resid	1.39E+09	Schwarz criterion		21.68209
Log likelihood	-297.5538	Hannan-Quinn criter.		21.35827
Durbin-Watson stat	1.990758			

4.6. Residual Diagnostic and Stability Tests

This study used Normality test, Serial correlation test, Heteroscedasticity test and Recursive Estimates of the CUSUM (Cumulative Sum Control) Test for diagnostic and stability test.

Table 6: Breusch-Godfrey Serial Correlation LM Test

F-statistic	0.074160	Prob. F (2,17)	0.9288
Obs*R-squared	0.250830	Prob. Chi-Square (2)	0.8821

Table 7: Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.324902	Prob. F (10,18)	0.9632
Obs*R-squared	4.434156	Prob. Chi-Square (10)	0.9256

The results in tables 6 and 7 revealed of both Serial correlation and Heteroskedasticity tests showed that F-statistic and Obs*R-squared p-values are greater than the 5% level of significance, suggesting absence of serial correlation and no Heteroskedasticity in the model.

Recursive Estimates of the CUSUM in figure 2 above showed that the blue line falls between the two red lines showing the 5% significance level boundaries. This confirmed that the model is stable.

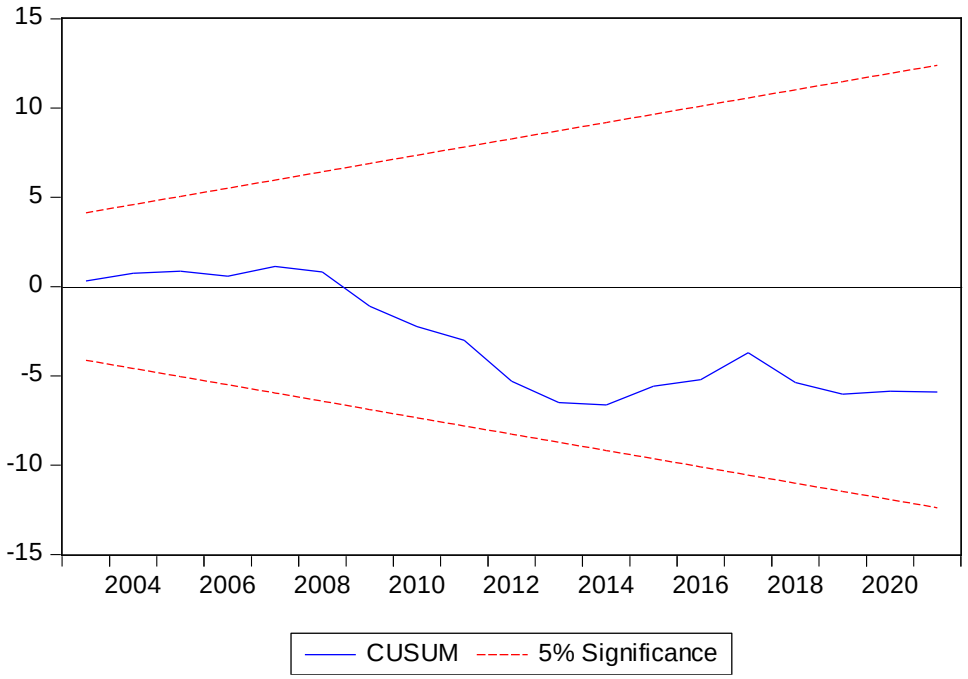

Figure 2: Recursive Estimates of the CUSUM (Cumulative Sum Control) Test

4.7 Discussion of results

This study on inflation and stocks market performance nexus found that all the independent variables employed in this work insignificantly impact the stock market performance within the scope of this study. This implies that changes in those variables may not lead to changes in the performance of stock market. This corroborates the findings of Uwubanmwen and Eghosa (2015) and Ogbulu, Abaenewe and Nnamocha (2014) that inflation is not a strong predictor of stock market performance in Nigeria. Confirming that government should ensure inflation stabilization and appropriate tax administration that takes into cognizance the technical patterns of stock market activities and that monetary policies should be aimed at finding a more realistic price level that will be beneficial to investors in the Nigerian stock market.

5. Conclusion, and Recommendations

5.1 Conclusion

The research work is anchored on the impact of inflation on stock market performance between 1990 to 202 1 inclusive. The result shows that consumer price index, interest rate, exchange rate and oil price are insignificantly related to all share index at 5% level. This implies that changes in those variables may not lead to significant changes in the performance of stock market.

5.2 Recommendations

Based on the empirical test results, the following suggestions are made.

i. The Government should provide adequate policy that will seek to curve inflationary trends to single digit inflation, as this will reduce the cost of living, increase in domestic production and improve in capital market performance.
ii. The necessary authorities within the capital market should provide the necessity for investors to trade in. This will ensure adequate trading playground and a positive turnaround on the performance of share prices.
iii. The government should focus on providing an adequate monetary policy in line with the inflationary trend in the country. It will ensure that the good monetary policy that will curb the situation is applied at the appropriate time. Providing adequate measures will bring about a reduction in inflation.

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