# EFFECT OF MONETARY POLICY ON STOCK MARKET PERFORMANCE IN NIGERIA

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**Abstract**

*This study investigated the effect of monetary policy on stock market performance in Nigeria. The variable considered for the study are all-share index as proxy for stock market performance, (dependent variable), exchange rate, interest rate and treasury bill rate represent independent variables. It covers the period of 34 years from 1988 to 2020 and was gathered from CBN statistical bulletin. The study employed Ordinary Least Square (OLS) techniques with the aid of E-view version 7 to analyze the data considered. The findings revealed that exchange rate has a positive and significant impact on all-share index, while interest rate has a negative and insignificant impact on the all-share index. Also, treasury bill rate has a negative and insignificant impact on all-share index. The study concludes that monetary policy has an effect on stock market performance in Nigeria. It was recommended that monetary authorities should implement favourable monetary policies in order to keep the Nigeria stock market attractive for investors. Also, decreasing interest rates would help the stock market achieve higher returns, therefore, the Nigerian stock market would be pushed towards more growth. This would help the Nigerian economy to receive more investment that can be directed to achieve higher economic growth rates and create greater job opportunities. .*

**Keywords**: Exchange rate, Interest rate, Monetary policy, Stock market, Treasury bill rate

## Introduction

The stability of the economy and the creation of employment possibilities that can foster a stable environment are the main goals of monetary policy design. To achieve the aforementioned, monetary policy should be properly transmitted into the macro economic through the various channels notably interest rate, credit and price level channel.Monetary policy according to Anyanwu (2013), involves a deliberate effort by the monetary authorities to control the money supply and credit condition for the purpose of achieving a certain broad economic objective. It can also be described as the act of controlling the direction and movement of credit facilities for the pursuance of stable price and economic growth in any economy (Chowdbury&Hoffman, 2003). Also, monetary policy refers to the action taken by the central bank to control the money supply, which may include the use of discretionary monetary policy instruments; open market operation, discounts rates, and reserve requirements (Loayza & Schmidt, 2002).
Globally, the stock market of any economy plays the important role of mobilizing domestic resources for productive investments. The stock market is regarded as an integral component of most economies, since it signals redistribution, and reallocation of assets among different economic units within an economy (Pilinkus, 2010). The performance of this market is tied to the overall performance of an economy. Particularly, the growth in the Nigerian economyin the last two decades can be associated with the impact of stock market on the overalleconomy (Bertram, 2018; Ifionu & Omojefe, 2013). This is to say that the evolution of the economy is fundamentally connected with the capital market performance.The stock market is just a segment in the capital market even though it is the most active instruments (Maxwell, Coppin & Craigwell 2018). It provides a platform where companies and institutions can raise capital in the primary market. It also provides a trading platform for buying and selling shares in secondary market thus providing liquidity for investors.

Manipulating monetary policy instruments such as discount rates, open markets operationand exchanges, central bank affect the rate of growth of the money supply, the level of interest rates, security prices, credit availability and liquidity creation from the hand of financial institution. These factors in turn can exert monetary imbalances or shock on the economy by influencing the level of investment, consumption, imports, exports, government spending, total output, income, and price level in the economy (Mishra & Pradhan, 2008). It is imperative that monetary policy

should enendeavour To maintain growth and stability of returns on investment in the stock market. There is a clear indication that the pain of an economic recession is deeply felt if there is a severe downtown all persistent fall in stock prices whichculminatesinto lower earnings per share. A stock crash reduces aggregate demand, putting downward pressure on output and employment. The standard response is for the Central Bank to lower interest rates by increasing the money supply. However, for monetary policy to permeate into the financial market and affect stock prices, it must pass through one or more of the known channels of transmission.

Stock exchange markets has undergone a series of reforms to compete with other emerging markets in terms of foreign investors' engagement. This was done to promote major economic sectors, make the market more accessible for capital raising and make it more appealing and attractive to both foreign and domestic investors. Those issues affecting stock market performance however remain unsolved. In Nigeria, for example, the interest rate has not been stable and it is exceptionally high, with disastrous consequences for borrowing and investment costs. According to the CBN statistical report,(2020), in 2009/2010 lending interest rate was around 6 to 6.25%, in 2011, it moved from 6.25% to 12% and it was constant at 12% till 2013, from 2014 to 2018, it increased to 14%, the increment in lending interest rate will discourage investors from borrowing. In 2018, the stock prices have forced the local investors who had witnessed a market meltdown to panic and sell off their shares which also caused the market capitalization to drop even further because as prices continue to fall, many investors in the market suffer losses and as a result the bubbling market now suffer low patronage as investors now seek alternative investment opportunities.

Suhaibu, Havey and Amidu, (2017) established that stock market are positively affected contemporaneously by monetary policies through the interest rate channel. The study also found an evidence of reverse causality from stock market to monetary policy. This was established by the fact that money supply and real interest rate fall due to positive and negative stock market shocks.However, Omotor (2011) observes that monetary policy was ineffective particularly because the CBN lacked instrument autonomy and goal determination, being heavily influenced by the political considerations conveyed through the Ministry of Finance. Attracting foreign investment has been difficult because of this. In order to keep stock prices from falling, money supply must be supported by growth in the output of goods and services. The subject of whether stock prices can be anticipated by monetary policy in an economy is of serious concern to both scholars and practitioners around the world. Scholars, academics and financial professionals have disagreed over what caused stock prices to move away from their intrinsic worth, prompting investigations into whether monetary policy tools have an impact on stock market performance in Nigeria. However, there is need to determine the effect of monetary policy on stock market performance in Nigeria.

**Literature Review**

Monetary Policy refers to the combination of measures designed to regulate the value, supply and cost of money in an economy. It can also be described as the art of controlling the direction of movement of credit facilities in pursuance of stable price and growth in an economy (Chowdhury, Hoffman & Schubert, 2013). Onouorah & Akomolafe 2016 define Monetary Policy as a rule and regulation imposed by the monetary authority in controlling the money supply inflation and achieving economic growth.

Okonkwo (2014) held that monetary Policy generally refers to the deliberate efforts of the government to use changes in money supply, cost of credit size of credit and direction of credit to influence the level of economic activities to achieve desired macroeconomic stability in an economy.

However, the objective of Monetary policy are to maintain a high level of employment (full employment), reduction in the level of inflation, to maintain the highest sustainable rate of economic growth, maintenance of healthy balance of payment increase in industrialization and economic stability.The instruments of monetary policy includes; Reserve requirement, Moral suasion, Selective credit control, Open market operation, Interest rates and Cash reserve requirement.

**Concept of stock market**

The stock market, as perceived by Al-Faki (2016) is a network of specialised financial institutions, series of mechanisms, processes and infrastructure that in various ways facilitate the bringing together of suppliers and users of medium to long-term capital for investment in social economic developmental projects. The stock is divided into primary and secondary markets. The primary market or the new issues market prmechanisms avenue through which government and corporate bodies raise fresh funds through the issuance of Securities which is subscribed to the

general public or a selected group of investors.It is a platform where company or companies or the government can raise money for investment or where already quoted companies can this fresh funds for expansion both the securities and exchange commission (SEC)and the Nigerian Stock Exchange(NSE) are involved in primary market activities. The secondary market provide an avenue for sale and purchase of existing Securities. according to Pandey (2006), it is a type of market where existing securities of a market are traded on a daily and continuous basis. It is a market for existing securities.

Generally, the Nigerian stock exchange market performs most of the functions as contained in its memorandum and articles of association which includes**;** To provide opportunities for the continued operation and attraction of foreign capital for Nigerian developments; To provide appropriate machinery to facilitate trading in stock and shares; To promote increasing participation by the public in the private sector of the economy acquisition of shares and stocks; Investment is encouraged to a variety of sources of funds with projects in which both funds are committed; Through the stock market, funds are efficiently allocated the funds in the market flow to the most productive user while unprofitable projects are always starved of funds.

**The Nigeria Stock Exchange in Context**

The Lagos stock exchange market was established in 1960 and the Nigerian stock exchange council was inaugurated on September 15, 11960. Officially activities Began on August 25, 1961 with 19 securities registered for trading, however informal operations began in June 1961. In tracing the history of the Nigerian stock market, Osaze, 2011 asserted that the Nigeria stock exchange market was founded during the colonial era in order to raise funds for running the local administration due to a lack of funds generated internally from the marketing of agricultural produce and solid mimineral. This was accomplished by restructuring, revenue collection, taking and other payment mechanism. The existence of the capital market however was on official according to Olawoyi 2011, it rose to prominence in 1959 following the visit of Mr. J. Lobyneson who asked by the Federal Government to speak about the central bank's role in the development of the local money and capital market. Then the Lagos stock exchange was found in 1960 and formed as a private limited liability Company Limited by guarantee under the Lagos Stock Exchange act 1960 (Osaze, 2011).

**Theoretical Review**

**The McKinnon -Shaw Theory**

The McKinnon -Shaw theory (1973) posits that in a developing country, when interest rates is liberalized, it will lead to a rise in the real interest rate which will also lead to increase in savings, stipulates investments and eventually lead to economic growth. The theory postulate that macroeconomic and fiscal environment is one of the pillars which determine the success or failure of securities markets (Bernard & Udoka, 2016). This implies that macroeconomic environment it determines the performance of stock market. The theory believes that a conducive macroeconomic environment promote the success of businesses which propels them to a stage where they can access funds for continuous growth. On the basis of the above postulations, it means that monetary Policy can influence the activities of other sectors of the economy. Thus, monetary authority can influence other macroeconomic indicators, economic agents and overall direction of the financial

**Empirical Review**

Abiodun (2021) examined the impact of monetary policy on the performance of stock markets in Nigeria. The study covers the time frame of 8 years (2011-2018) and the method of analysis employed is ordinary least square multiple regression. The study found that did you guys rebuild it as a negative and significant impact on the stock market performance while prime lending rates as a negative and insignificant relationship with stock markets, also, deposit rates as a positive and significant relationship with the stock market performance.

Cordelia, Dorcas and Adeyemo (2021) examined the stock markets we action to monetary policy in Nigeria. Secondary data was used and the method of analysis employed was ordinary least square multiple regression techniques. The study revealed that interest rates as immaterial harmful effects on the stock market output, however, the results indicate that's the exchange rate effect the stock market performances negatively and the effect is insignificant.

Alugbuo and Ekwugha (2020) examined the effect of monetary policy on stock market performance in Nigeria. Secondary data was used and the method of analysis employed auto-regressions distributed lag and unrestricted error correction model. This study found out that lending interest rates and money supply contributes more significantly to All-Share Index while Consumer price index and Treasury bill as an insignificant economic effects on the stock market performances in Nigeria**.**

Osakwe and Chukwunulu (2019) **investigated** the effect of monetary policy on stock market performance in Nigeria. Secondary data was used the method of analysis employed is the ordinary least square technique. The study found that money supply exchange rate fluctuation has significant positive effects on stock market price movements, while interest rates as in significant negative effects on stock markets price movements on the overall, it also revealed that monetary policy variable significantly determine 94% of the stock markets in Nigeria

**Methodology**

The source of data is secondary data. This is so because the published data on monetary policy instrument and the independent variable selected {interest rate, treasury bill rate and exchange rate} including All Share Index of the Stock market was gathered from Central Bank of Nigeria Statistical Bulletin, 2020 edition. The instrument that was used to get the CBN bulletin was from the Internet. It is on the webpage of the official website of CBN that the Bulletin was downloaded.Thevariables considered for the study includes All Share Index(Dependent variable), and interest rate, treasury bill rate and exchange rate as the independent variables. The data was analysed using Ordinary least square (OLS) method and E-view 7 was used for the data analysis.

The model is specified as follows:

$Y = f(x)$…….....(i)
$ASI = F(INT, EXR, TBR)$……(ii)
Hence, the econometric form of the model is:
$ASI = B_0 + B_1 INT + B_2EXR + B_3TBR + e$ ……(iii)

Where: ASI = All Share Index; INT = Interest rate; EXR = Exchange rate; TBR = Treasury bill rate; $B_0$ = Constant term; $B_0$-$B_4$= Coefficient of Independent variables; e = Error term representing factors other than those specified in the model.

A priori Expectation
$B_1 < 0$; $B_2 > 0$; $B_3 > 0$; $B_4 < 0$

**Table 1: Presentation And Analysis of Data**

Dependent Variable: ASI
Method: Least Squares
Date: 08/05/22 Time: 12:57
Sample: 1988 2020
Included observations: 33

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 27245.56 | 6945.150 | 3.922962 | 0.0005 |
| EXR | 96.37849 | 16.18936 | 5.953200 | 0.0000 |
| INT | -868.4691 | 609.6260 | -1.424593 | 0.1649 |
| TBR | -698.4478 | 467.2291 | -1.494872 | 0.1458 |

| | | | |
|---|---|---|---|
| R-squared | 0.684470 | Mean dependent var | 17662.31 |
| Adjusted R-squared | 0.651829 | S.D. dependent var | 15082.51 |
| S.E. of regression | 8899.585 | Akaike info criterion | 21.13861 |
| Sum squared resid | 2.30E+09 | Schwarz criterion | 21.32000 |
| Log likelihood | -344.7871 | Hannan-Quinn criter. | 21.19964 |
| F-statistic | 20.96963 | Durbin-Watson stat | 1.364072 |
| Prob(F-statistic) | 0.000000 | | |

**Source: Author's Computation from E-view Output, 2022**
**F Statistic**

**Interpretation of Results and Discussion of Findings**

Data must be fitted reasonable well. That is value of R-square should be reasonable high at least more than 60 percent. The higher the R-square, the better the data. In this model we observed that R-square is 68% which is good because 68% is greater than 60%, which means that the model is fit. The remaining 32% are factors or variables that were not included in the model but been captured by error term which is capable of influencing the dependent variable. The adjusted R-square which is 65% could be further explained that the adjusting for the degree of freedom, the predictors can only explain 68% variation of all-share index.

**T-test**: The independent variables should be individually significant. This could be checked by using probability value of t-test. If the p-value of t statistics is less than 5% (0.05) we can reject the null and accept alternative hypothesis. If otherwise, we do the inverse. The result shows that only exchange rate is statistically significant with the p value of 0.0000 while interest rate and treasury bill rate are statistically insignificant with p value of 0.1649 and 0.1458 respectively.

The value of constant which is 27245.56 implies that holding the independent variable constant, all-share index will increase by 27245.56. Also, a unit increase in exchange rate will cause 96.37849 unit increase in all-share index. However, the coefficient of interest rate which stands at -868.4691 indicates that for every unit increase in interest rate, there will be a decrease in all-share index. Lastly, a unit increase in treasury bill rate will cause -698.4478 decrease in all-share index. The overall performance of the model is quite good because the p-value 0.000000 which indicates that the model is significant. This signifies that the model is adequate in relation to all-share index, exchange rate, interest rate and treasury bill rate. Hence, it provides greater reliability for information contained in the Table above.

This examined the effect of monetary policy on stock market performance for the period of 33years (1988-2020)using the descriptive and the ordinary least square regression method. From the statistical analysis of this study, the study reveals that only exchange rate has a positive relationship with all-share index while interest rate and treasury bill rate have negative relationship with real gross domestic product. The study further reveals that exchange rate with p value of 0.0000 is statistically significant and thus has a significant impact on all-share index. Interest rate and treasury bill rate does not have any significant effect on all-share index with p value of 0.1649 and 0.1458 respectively which are greater than 0.05 level of significance. The overall performance of the model is quite good because the p-value is 0.000000 which indicates that the model is significant.

**Conclusion and Recommendations**

The study investigated monetary policies on stock market performance in Nigeria for the period of 33 years (1988-2020). It used time series and secondary sources of data which were amassed from the Central Bank of Nigeria (CBN) Statistical Bulletin of 2020. According to the regression analysis result, the p-value revealed that exchange rate positively influence all-share index, while interest rate and treasury bill rate have a negative effect on all-share index. The study concludes that monetary policy have an effect on stock market performance in Nigeria.

The study recommends that monetary authorities should implement favourable monetary policies in order to keep the Nigeria stock market attractive for investors. Decreasing interest rates would help the stock market archive higher returns; therefore, the Nigeria stock market would be pushed towards more growth. This would help the Nigerian economy to receive more investment that can be directed to achieve higher economic growth rates and create greater job opportunities.

CBN should check any excessive inherent in exchange market for stability to prevent risk in the stock market behaviour.

**References**

Anyanwu J.C (2013),monetary economics: policy and institutions. Onitsha*:* Hybrid Publisher Limited.

Bertram, O.A. (2018), Economic growth and capital market development in Nigeria; An appraisal. *Journal of Business Management and Economic Research*, 2, 27-38.

Bernard, C. N., & Udoka, A. (2016), Effect of monetary policy on Nigerian stock market performance, *International Journal of scientific research and management (IJSRM),* 4(9), 4530-4542.

Chowdbury, H. &Schubert, M. (2003). The impact of monetary policy on economic development, *Global Journal of Human Social Science,* 11(1), 8-1.

Cordelia O.O, Dorcas T. A & Kingsley A (2021), Stock market reaction to monetary policy modifications: evidence from an emergent market. *Academics Journal of Interdisciplinary Studies*. 10(3) 2281- 3993.

Ifionu, E. P., & Omojefe, G. (2013), The capital market and performance of the Nigerian economy: A time series analysis. *West African Journal of Industrial and Academic Research*, 8, 192-207.

Loayza, J & Schmidt- Hebbel, (2002). Inflation and rate of return on common Stock. " *Journal of Finance* 31(2), (471-483).

Maxwell, O, Coppin, O.I, Craigwell, I. U. (2018), An empirical assessment of the impact of Nigerian all dhare index, market capitalization, and number of equities on gross domestic produ. *Open Journal of Statistics*, 8, 584-602.

Misha, P. K., & Pradgan, B. B. (2008). Financial innovation and effectiveness of monetary policy.*SSRN: https://ssrn.com/abstract.*

NSE. (2018), The Nigerian Stock Exchange Fact Book.

Okonkwo, E., &Emerenini, A. (2014), Impact of monetary policy on stock returns in Nigeria, middle-east. *Journal of Scientific Research*, 24(5); 1778-1787.

Omotor, D. G (2021), Relationship between inflation and stock market returns: evidence from Nigeria. *Journal of Applied Statistics,* 1(1), 1-15.

Osakwe, A. C. & Chukwunulu, J. I (2019), Monetary policy and stock market performance in Nigeria. *EPRA International Journal of Research and Development*, 4(5), 58-65.

Pilinkus, D. (2010). Macroeconomic indicators and their impact on stock market performance in the short and long run, Technological and Economic Development of Economy, 16, 291-304.

Sahaibu, I., Harvey, S. K., & Amidu, M. (2017), The impact of monetary policy on stock market performance: evidence from twelve African countries. Researchin InternationalBusiness and Finance, 42(2*), 1372-1382*.

Uchendu T. B (2016), The Transmission of monetary policyin Nigeria, central bank of Nigeria: Economic and Financial Review, 34(2), 606-625.