International Journal of
Recent Innovations in Academic Research
Open Access, Peer Reviewed, Abstracted and Indexed Journal

E-ISSN: 2635-3040; P-ISSN: 2659-1561
Homepage: https://www.ijriar.com/
Volume-6, Issue-4, Apr-2022: 23-27

Research Article

Monetary Policy and Stock Market Return in Nigeria

Abolade Francis AKINTOLA and Bola Olatunbosun AROYEWUN

[1]Department of Finance, Babcock University, Ilishan–Remo, Ogun State, Nigeria.
[2]Department of Economics, Babcock University, Ilishan-Remo, Ogun State, Nigeria.
Corresponding Author Email: akintolaa@babcock.edu.ng

Received: April 2, 2022 **Accepted:** April 13, 2022 **Published:** April 21, 2022

Abstract: This paper examines monetary policy and stock market return in Nigeria from 2010-2019. Secondary data used for the study was obtained from Central Bank of Nigeria Statistical Bulletin of various years. *Ex post facto* research design was adopted in carrying out the research while multiple linear regression model was used to find the relationship between the dependent and independent variables. The study established a significant relationship between monetary policy (exchange rate, inflation rate and interest rate) and stock market return in Nigeria. The study therefore recommended that monetary authorities in Nigeria should implement favourably monetary policies in order to keep the Nigeria stock market to be attractive to investors and that there should be increase in money supply and maintain low monetary policy rate so that local and foreign investors can be attracted to stock market.
Keywords: Exchange rate, Interest rate, Inflation rate, Stock market return and Nigeria.

1.0 Introduction

The performance of the stock market in a country is always linked to the performance of an economy in the country. This is because the growth achieved in an economy of a country can be associated with the impact of the stock market in that very country. Because of the importance of stock exchange market to the economy, research on monetary policy and stock exchange market has become an issue of importance to policy makers in all the countries of the world. A stock market is an institutional arrangement that facilitates the sale of stocks, which are equity investment. Because of its indispensable role in capital mobilization and allocation towards the enhancement of economic growth, the stock market is often referred to as the engine of economic growth (Nwokoye & Otu, 2018). Development of the stock market will have a major influence on the economy as it will affect real activities such as savings, consumption, investment, level of employment, export to mention but few (Nwokoye & Otu, 2018).

Investment in equity shares in the stock market is one of the most liquid form of investment in modern times (Akanbi, 2021). Investment in shares is not an easy decision to make. The decision to invest is influenced by the market price of the shares (Hassan, 2015). The stock market is just a segment in the capital market even though it is the most active segment. 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 (Maxwell, Happiness, Alice & Chinedu, 2018). Monetary policy is one of the macroeconomic instruments with which monetary authority in a country employed in the management of their economy to attain desired objectives. It entails those actions initiated by the Central Bank which aimed at influencing the cost and availability of credits (Imoughele & Ismaila, 2014). Objectives of monetary policy include price stability, maintenance of balance of payments equilibrium, and promotion of employment, output growth and sustainable development. Central Bank of Nigeria was established in

1959 and saddled with the responsibility of the regulation of the stock of money in such a way as to promote social welfare. This role has facilitated the emergence of active money market whereby treasury bills, a financial instrument used for open market operations and raising debt for government has grown in volume and value becoming a prominent earning asset for investors and source of balancing liquidity in the market (Imoughele & Ismaila, 2014). It is important to state that monetary policy makers need to understand the relationship between monetary policy and stock prices so that they can appreciate the role that stock prices should play in monetary policy making. It is for the discussion above that this paper investigates monetary policy and stock market performance in Nigeria.

2.0 Literature Review

2.1 Conceptual Review

2.1.1 Monetary Policy

Monetary policy refers to the actions of the Central Bank to regulate the monetary supply which could be through discretional monetary policy instruments such as open market operation (OMO), discount rate, reserve requirements moral suasion, direct control of banking system credit, and direct regulation of interest rate (Alugbuo & Chika, 2020). Monetary policy comprises the formulation and execution of policies by the Central Bank to achieve desired objectives or set of objectives; the policies and decisions are aimed at guiding bank lending rates to the levels where credit demand and money growth are at a level consistent with the aggregate supply elasticity (Alugbuo & Chika, 2020). The objectives and goals that the Central Bank seeks to achieve generally are low inflation, protection of value of currency, full employment and sustainable economic output.

2.1.2 Stock Market

The stock market is a network of specialized 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 socio-economic developmental projects. The stock market is divided into the primary and the secondary market. The primary market or the new issues market provides the avenue through which government and corporate bodies raise fresh funds through the issuance of securities which is subscribed to the general public on a selected group of investors. The secondary market provides an avenue for sale and purchase of existing securities (Alugbuo & Chika, 2020).

2.2 Theoretical Review

2.2.1 Arbitrage Pricing Theory (APT)

Arbitrage Pricing Theory developed by Ross (1976b). Ross (1976a) addressed the concern and shortcoming of Capital Asset Pricing Model (CAPM). The APT Presents stock pricing model linking expected return to risk. The model relies on three (3) key propositions. First, the security return can be described by a factor model. Second, there are sufficient securities to diversify away from the idiosyncratic risk. Thirdly, well-functioning security markets do not allow the persistence of arbitrage opportunities. The model involves identifying macroeconomic variables which influence stock risks and returns.

APT assumes that rational investor holds a well-diversified portfolio. It is only systematic risk that APT takes care of. Consequently, investors are expected to price these factors precisely.

2.2.2. Present Value Model (PVM)

An alternative, but not inconsistent approach is the discounted cash flow or present value model (PVM). This model relates the stock price to future expected cash flows and the discount rate of these cash flows. Again, all macroeconomic factors that influence future expected cash flow or the discount rate by which these cash flows are discounted should have an influence on the stock price. The advantage of the PVM model is that it can be used to focus on the long run relationship between the stock market and macroeconomic variables.

2.3 Empirical Review

Jonathan and Oghenebrume (2017) empirical results indicated that monetary policy rate, credit to private sector, exchange rate and broad money supply are positively related to stock market prices.
Atis and Erer (2018) analyzed the asymmetric response of stock market returns and volatility to monetary policy in bull and bear markets in Turkey over the period of 2002 to 2016. They used Markou switching model in order to identify bull and bear markets. They employed policy rate as monetary policy instrument. From the empirical results, they deduced that monetary policy is more effective in bull market periods.

Echekoba, Okaro, Ananwude and Akuesodo (2018) employed Ordinary Least Square (OLS) regression technique and causality analysis to investigate the effect of monetary policy on the performance of Nigeria capital market with time series data from 1986-2016. It was found that monetary policy rate negatively and significantly relates with capital market performance, whereas, cash reserve ratio has positive and significant impact on performance of the capital market.

Chukwuemeka (2018) stated that interest rate, exchange rate, monetary policy rate all have positive and significant relationship with market capitalization.

Osakwe and Chukwunulu (2019) used OLS regression technique to unravel if monetary policy (money supply, interest rate and exchange rate) influences stock market performance in Nigeria from 1986 to 2015. The results of the study indicated that money supply and exchange rate have positive and significant effect on the stock market price movement whereas, interest rate has insignificant negative effect on stock market movement.

3.0 Methodology

This research work dealt with the monetary policy and stock market return in Nigeria.

3.1 Research Design

The *ex-post facto* research is adopted in carrying out this research. The research relied heavily on historical data i.e time series as the data used were extracted from Central Bank of Nigeria statistical bulleting from 2010 to 2019 i.e ten (10) years.

3.2 Model Specification

The mathematical model is used to show the functional relationship between monetary policy and stock market return.
$Y = f(x)$
Y = Stock market return (dependent variable)
X = Monetary policy i.e Exchange rate. Inflation rate, Interest rate (Independent variables)

3.3 Regression Equation

$Y = \alpha + \beta\ (x) + \mu$
$SR = \alpha + \beta_0(ER)_t + \mu_t$
$SR = \alpha + \beta_1(INF)_t + \mu_t$
$SR = \alpha + \beta_2(IR)_t + \mu_t$

Where:
SR–Stock Return
ER–Exchange Rate
INF–Inflation Rate
IR–Interest Rate
μ-Error Term

Stock return was calculated as $SR = (P_1\text{-}P_0) \div P_0$

Multiple Linear Regression model is used to find the relationship between the dependent variable and independent variables.

The multiple linear regression model is stated below:
$SR = \alpha + \beta_0 ER + \beta_1 INF + \beta_2 IR + \mu_t$

Where:
SR–Stock Market Return
EP–Exchange Rate
INF–Inflation Rate
IR–Interest Rate
μ-Error Term

Table 1. Regression Result

Variables	**Coefficient**	**Std Error**	**T-stat**	**Prob.**
C	-3.185762	22.74230	-0.140081	0.8897
Exchange Rate	0.021501	0.045846	0.468981	0.6431
Inflation Rate	-0.554568	0.196025	-2.829068	0.0091
Interest Rate	0.705487	1.027219	0.686793	0.4985
R^2	0.287195			
Adj R^2	0.201658			
F Statistics	3.357563			
Prob (F-stat)	0.034709			
Durbin Waston	2.554381			
Observation	10			
Source: Researchers' Computation E-view and Microsoft Excel				

$SR = \alpha + \beta_0 ER + \beta_1 INF + \beta_2 IR + \mu$
$SR = 0.73 + 0.721ER - 0.016INF - 0.611IR + \mu_t$

The mode above tested the effect of the three variables on the stock return.

4.0 Conclusion

This research has examined the effect of monetary policy (exchange rate, inflation rate and interest rate) on the stock return in Nigeria from 2010-2019. The study was able to examine how the three independent variables can individually and aggregately affect stock return in Nigeria. The study further provided an insight as to the extent to which each of the independent variable affects the dependent variable through descriptive statistics.

The study therefore found out that a significant relationship exists between monetary policy represented by exchange rate, inflation rate and interest rate and the dependent variable stock market return.

4.1 Recommendations

Based on the findings and conclusion of this research the following recommendations are made:

1) Monetary authorities should implement favourably monetary policies in order to keep the Nigerian stock market to be attractive to investors.
2) Monetary policy rate should be reduced to a single digit as against the current double digit, this would attract investments in the capital market.
3) Monetary authority in Nigeria should create an enabling environment for investment to thrive in Nigeria. This they should do by formulating laws that would make investment in stock market to be attractive to would be investors.

4) Increase in money supply and low monetary policy rate will make the stock market to be attractive to both local and foreign investors.

Conflicts of interest: The authors declare no conflicts of interest.

References

1. Akanbe, A. 2021. Effect of monetary policy stock market performance in Nigeria. Journal of Global Economics and Business, 2(5): 101-115.
2. Alugbuo, J.C. and Chika, E.J. 2020. Monetary policy and stock market performance: Evidence from Nigeria Stock Exchange market. International Journal of Research and Innovation in Social Science, 4(6): 556-568.
3. Atis, A. and Erer, D. 2018. The impact of monetary policy on stock returns during bull and bear markets: The evidence from Turkey. Ege Academic Review, 18(14): 699-710.
4. Chukwuemeka, A. 2018. Monetary policy and the performance of Nigeria capital market. European Journal of Accounting, Auditing and Finance Research, 6(6): 22-43.
5. Echekoba, F.N., Okaro, C.S., Ananwude, A.C. and Akuesodo, O.E. 2018. Monetary policy and capital market performance: Empirical evidence from Nigeria data. Research Journal of Economics, 2(11): 2-5.
6. Hassan, O.M. 2015. Determinants of share price movement in Nigeria-The management perspective. International Journal of Business, Economics and Management, 2(10): 209-221.
7. Imoughele, L.E. and Ismaila, M. 2014. Empirical investigation of the impact of monetary policy on manufacturing sector performance in Nigeria (1986-2012). International Journal of Education and Research, 2(1): 1-20.
8. Jonathan, O.O. and Oghenebrune, A.D. 2017. Impact of monetary policy on stock market returns in Nigeria. Journal of Economics, Management and Trade, 19(4): 1-11.
9. Maxwell, O., Happiness, O.I., Alice, U.C. and Chinedu, I.U. 2018. An empirical assessment of the impact of Nigerian all share index, marked capitalization and number of equities on gross domestic production. Open Journal of Statistics, 8: 584-602.
10. Nwokoye, E.S. and Out, E. 2018. Impact of monetary policy on stock market development: Implementations for the Nigerian economy. International Journal of Development and Economic Sustainability, 6(4): 29-50.
11. Osakwe, A.C. and Chukwunulu, J.I. 2019. Monetary policy and stock market performance in Nigeria. EPRA International Journal of Research and Development, 4(5): 58-65.
12. Ross, A.S. 1976a. Return risk and arbitrage. In: Friend, I. and Bicksler, J., (Eds), Risk and Return in finance, Cambridge M.A. Ballinger.
13. Ross, S.A. 1976b. The arbitrage theory of capital asset pricing. Journal of Economic Theory, 13(3): 341-360.

Citation: Abolade Francis AKINTOLA and Bola Olatunbosun AROYEWUN. 2022. Monetary Policy and Stock Market Return in Nigeria. International Journal of Recent Innovations in Academic Research, 6(4): 23-27.