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INTERNATIONAL INVESTMENT FLOWS AND STOCK MARKET PERFORMANCE: THE NIGERIAN EXPERIENCE

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ABSTRACT
This study examined the correlation between foreign investment inflows and stock market capitalization in Nigeria, using an ex-post facto research approach. The population consisted of the Nigerian economy, and a sample was taken from the available data to capture foreign direct investment (FDI) flows, foreign portfolio investment (FPI) flows, and stock market capitalization from 1994-2022. Judgmental sampling was employed to select variables, and secondary data from the Central Bank of Nigeria (CBN) annual reports for 1994-2022 were utilized. Time-series data from 1994 to 2022 were analyzed using Eviews 9.0 software, employing cointegration tests, normality tests, descriptive statistics tests, and regression analysis. The cointegration tests revealed no evidence of a long-term equilibrium relationship among the variables. At the same time, regression analysis indicated positive and significant relationships between foreign portfolio investment and foreign portfolio investment flows with stock market capitalization in the short term. Therefore, policymakers are recommended to create an environment conducive to attracting and retaining foreign investment, focusing on measures to encourage and sustain FPI inflows, such as enhancing market liquidity and improving investor protection mechanisms.
KEYWORDS: *foreign direct investment, foreign portfolio investment, foreign investment flows, stock market capitalization.*

1.INTRODUCTION

The Nigerian stock market is essential for developing the Nigerian financial system. Established in the early 1960s, the Nigerian stock market has seen significant expansion in market capitalization, trading volume, and the number of listed companies. The main platform for trading shares, bonds, and other financial assets in Nigeria is the Nigerian Exchange Group (NGX), which was formerly called the Nigerian Stock Exchange (NSE). Regulatory bodies like the Securities and Exchange Commission (SEC) also maintain market integrity and protect investors (Umar & Shittu, 2020).

The Nigerian stock market serves as a magnet for both domestic and foreign investment inflows, channeling capital towards productive ventures and driving economic expansion. Foreign portfolio investors are attracted to the market's potential for high returns, as well as its robust regulatory framework and improving transparency standards. Beyond its role in mobilizing capital, the Nigerian stock market serves as a barometer of economic performance, providing valuable insights into investor sentiment and market expectations. Positive developments in the stock market, such as rising indices and increased trading activity, often correlate with broader economic expansion and business confidence. Conversely, downturns in the market may signal underlying economic challenges or investor concerns, prompting policymakers to implement corrective measures to restore market stability (Osabohien et al., 2020). To restore market stability, initiatives such as the dematerialization of share certificates, introduction of electronic trading platforms, and implementation of corporate governance reforms have been made to facilitate smoother transactions, reduced transaction costs, and improved investor confidence (Dabwor et al., 2022). As a result, the Nigerian stock market remains an attractive destination for both local and international investors seeking exposure to Africa's largest economy. For Nigeria, these investments have the potential to inject liquidity, stimulate economic activities, and enhance the overall capital market environment. As international investment flows into the country, they bring with them not only financial capital but also expertise and technology transfer, which can positively impact various sectors of the economy and also leads to increased stock market activity (Asongu & Nting, 2020). However, despite the potential advantages of engaging in stock market activities, there are apprehensions over the impact of foreign investment flows on the local economy and financial system. While foreign capital inflows can stimulate economic growth, enhance market

liquidity, and facilitate technology transfer, they also pose risks such as currency volatility, asset bubbles, and financial contagion (Ekpo, 2023). Balancing the benefits and risks associated with international investment flows requires effective regulatory frameworks, risk management practices, and macroeconomic policies tailored to the unique characteristics of the Nigerian stock market.

Remarkably, the Nigerian stock market has undergone significant transformations in recent years, including the demutualization of its exchange and regulatory reforms aimed at enhancing transparency and investor protection. These changes have further intensified the interest of international investors, rendering the study of international investment flows' impact on the stock market even more pertinent. As Nigeria continues to pursue economic diversification and growth, it is imperative to evaluate the role of international investment flows in this process and their consequences on the stock market's dynamism. According to the latest capital importation statistics from the National Bureau of Statistics, investments in shares via portfolio channels declined to $8.37 million in the third quarter of 2023, compared to $8.52 million in Q2 and $222.31 million in Q1 (Asu, 2024). Consequently, this paper aims to examine the relationship between international investment flows and stock market performance in Nigeria. Specifically, it focuses on examining the relationships between foreign direct investment (FDI) flows and stock market capitalization, as well as between foreign portfolio investment (FPI) flows and stock market capitalization. The null hypotheses for these relationships are as follows: for FDI flows and stock market capitalization, the null hypothesis states that there is no significant relationship between the two variables; similarly, for FPI flows and stock market capitalization, the null hypothesis posits no significant relationship. These hypotheses will be rigorously tested using appropriate statistical methods to ascertain the presence or absence of meaningful associations between international investment flows and the performance of the Nigerian stock market.

2.LITERATURE REVIEW

International Investment Flows

International investment flows denote the movement of capital across borders, comprising various forms such as Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI). FDI commonly entails establishing businesses or acquiring significant ownership stakes in foreign enterprises, facilitating management control (Moshirian, 2015). Conversely, FPI comprises shorter-term investments in financial assets like stocks and bonds, where investors seek financial returns without exerting management control (Dabwor et al., 2022). These international investment flows are pivotal drivers of the global economy, facilitating capital allocation, economic growth, and financial market dynamics.

The significance of international investment flows extends to both source and recipient countries. Source countries benefit from diversifying their investment portfolios, seeking higher returns, and gaining access to new markets, which, in turn, fosters economic growth and job creation in recipient nations (UNCTAD, 2021). However, challenges and risks are inherent in these flows, including capital volatility, currency risk, and the potential for financial instability during crises (**Ali** & Iness, 2020). Moreover, international investments can exacerbate economic inequalities between countries, favoring regions with more developed financial markets (Frankel, 2005).

Government policies and regulations play a crucial role in shaping international investment flows, as countries often seek to either attract or restrict foreign investments based on economic and political objectives. Investment promotion agencies offer incentives to attract FDI, such as tax breaks and streamlined administrative processes (UNCTAD, 2019). Conversely, governments may impose restrictions on certain sectors or require approval for foreign investments with national security implications (Wang & Blomström, 2012).

Foreign Direct Investment Inflows

The economy of countries is substantially influenced by the inflow of foreign direct investment (FDI). FDI inflows refer to the capital investments made by foreign entities into the economy of a host country with the objective of establishing business operations or acquiring substantial ownership stakes in domestic companies (UNCTAD, 2021). In the context of Nigeria, FDI inflows have been recognised as a critical source of external capital, driving economic growth, fostering technology transfer, and enhancing productivity (Olayinka & Amos, 2020).

The attractiveness of Nigeria as a destination for FDI inflows stems from its abundant natural resources, large market size, and strategic geographical location. The country's vast oil reserves, agricultural potential, and burgeoning consumer market present lucrative investment opportunities for foreign investors seeking to diversify

their portfolios and tap into emerging markets (Abdulraheem, 2019). Additionally, Nigeria's efforts to liberalise its economy, improve business environment reforms, and enhance infrastructure have further bolstered its appeal as an FDI destination (Ogunleye, 2018).

Despite these promising prospects, the magnitude and composition of FDI inflows into Nigeria have been subject to fluctuations and challenges. The volatility of global oil prices, political instability, security concerns, and regulatory uncertainties have posed significant obstacles to sustained FDI inflows (Ibrahim & Mohammed, 2021). Moreover, the dominance of the extractive industries, particularly the oil and gas sector, has led to concerns about the sustainability and diversification of FDI inflows across other sectors of the economy (Ojeka & Adegbite, 2019).

In recent years, Nigeria has implemented various policy measures aimed at attracting and promoting FDI inflows across diverse sectors such as manufacturing, telecommunications, and agriculture. The establishment of special economic zones, investment incentives, and streamlined approval processes are among the initiatives undertaken to enhance the investment climate and encourage FDI inflows (Ogbuigwe & Ogbuigwe, 2020). Additionally, efforts to strengthen institutional frameworks, improve governance, and enhance transparency have been pivotal in fostering investor confidence and attracting FDI inflows (Olayinka & Amos, 2020). Looking ahead, it is imperative for Nigeria to adopt a holistic approach towards promoting sustainable FDI inflows and maximising their developmental impact. This entails addressing structural bottlenecks, enhancing competitiveness, and diversifying the economy to attract investments across various sectors.

Foreign Portfolio Investment Inflows

One primary funding source for developing nations like Nigeria is foreign portfolio investment (FPI). FPI inflows refer to investments made by foreign investors in financial assets such as stocks, bonds, and money market instruments in a country's financial markets, with the aim of earning returns on their investments (Obi, 2021). In the context of Nigeria, FPI inflows have gained prominence as a source of external financing, contributing to capital formation, liquidity in the financial markets, and exchange rate stability (Adewumi & Olagunju, 2020).

The attractiveness of Nigeria as a destination for FPI inflows is driven by factors such as the size of its financial markets, economic growth prospects, and relative returns on investment compared to other emerging markets (Ojo, 2019). The Nigerian Exchange Group (NGX) and the bond market offer opportunities for foreign investors to diversify their portfolios and access high-yield securities, particularly in sectors such as banking, telecommunications, and consumer goods (Ogbonna & Onwuegbuzie, 2020). However, FPI inflows into Nigeria are subject to various factors and risks, including global market conditions, domestic economic policies, and investor sentiment. Fluctuations in global financial markets, changes in interest rates, and geopolitical tensions can influence the flow of FPI into Nigeria (Okafor & Nweze, 2021). Moreover, domestic factors such as political instability, policy uncertainties, and regulatory changes can affect investor confidence and influence FPI inflows (Oyelaran-Oyeyinka & Lal, 2019).

The impact of FPI inflows on the Nigerian economy is mixed and depends on various factors such as the composition of investments, their duration, and their effect on financial market stability. While FPI inflows can enhance liquidity in the financial markets, deepen capital markets, and facilitate access to capital for domestic firms, they may also pose risks such as volatility, speculative bubbles, and sudden capital outflows (Onuoha, 2021). Moreover, the short-term nature of FPI inflows can make the economy vulnerable to external shocks and fluctuations in investor sentiment.

Stock Market Performance in Nigeria

Stock market performance in Nigeria has been a subject of keen interest for investors, analysts, and policymakers. It is an essential indicator of the country's economic health and a reflection of both domestic and international influences (Oyinlola & Olowe, 2019). The Nigerian Exchange Group (NGX), Nigeria's principal stock market, has experienced periods of both growth and volatility, with a range of factors contributing to these fluctuations.

The Nigerian stock market is very sensitive to fluctuations in global economic conditions and commodity prices, especially oil since the country's economy is still heavily reliant on exports of crude oil for both domestic consumption and international financing (Obadan & Ayodele, 2017). Oil price volatility, influenced by geopolitical factors and global demand, has a profound impact on stock market performance in Nigeria. Sudden declines in oil prices, as witnessed in the past, have led to bearish market trends, reflecting the country's economic vulnerability. Another crucial determinant of stock market performance in Nigeria is government policies and regulations. Policies affecting taxation, trade, and the ease of doing business can significantly influence investor

sentiment (Oyinlola & Olowe, 2019). The Central Bank of Nigeria's monetary policies and foreign exchange regulations, for instance, have played a role in shaping market dynamics. Additionally, political and governance issues, including corruption and political stability, have affected investor confidence and stock market performance (Obadan & Ayodele, 2017).

Despite these challenges, the Nigerian stock market has also seen periods of growth and resilience. Reforms and initiatives aimed at improving market transparency, efficiency, and governance have helped attract foreign and domestic investors (Oyinlola & Olowe, 2019). Moreover, the diversification of the market with the inclusion of new sectors beyond oil and banking, such as telecoms and consumer goods, has contributed to market growth. Improved access to technology and online trading platforms has also enhanced participation and liquidity in the market. Stock market performance in Nigeria is typically evaluated using several key measures, one of which is stock market capitalization.

Stock Market Capital Capitalization

Market capitalization, often known as market cap, is a crucial measure that signifies the whole worth of all the shares of publicly listed firms on the Nigerian Exchange Group (NGX) (Adaramola et al., 2018). The formula is to multiply the number of available shares by the current market price of each listed stock. This statistic offers crucial information about the overall size and health of the Nigerian stock market.

Stock market capitalization provides investors and analysts with an essential gauge of the market's overall performance and its growth trajectory (Adegbie, 2015). A rising market capitalization is generally interpreted as a positive sign of economic growth and investor confidence in the Nigerian stock market. It also helps in assessing the relative importance of the stock market within the broader economy and its contribution to the country's overall wealth (Adaramola, et al., 2018).

The monitoring of stock market capitalization by policymakers, investors, and market players is important since it indicates the changes in the overall market value over a period of time. Understanding this metric aid in strategic investment decisions, risk assessment, and the allocation of resources, both domestically and internationally. It plays a crucial role in positioning Nigeria as an attractive investment destination, drawing attention from local and foreign investors. This shows that, stock market capitalization is a significant measure of stock market performance in Nigeria, indicating the market's size, value, and its ability to attract investment. Its trends and movements are closely analyzed and monitored by various stakeholders in the financial sector to assess the country's economic health and prospects (Adegbie, 2015). Understanding this measure is vital for investors seeking to make informed decisions in the Nigerian stock market.

Theoretical Framework

Various economic theories contribute to the understanding of the dynamics of international investment flows and stock market performance.

Portfolio Theory

Portfolio theory, formulated by Harry Markowitz, is a foundational concept in finance that underscores the importance of diversifying assets to strike a balance between risk and return. This theory finds relevance in the context of international investment flows and their influence on stock market performance in Nigeria.

Markowitz's portfolio theory states that by mixing assets with different risk-return characteristics, investors may decrease the total risk of their portfolio while aiming to maximise profits. The use of this concept in relation to foreign investment flows and stock market performance in Nigeria may be understood as follows:

Risk and Return Trade-off: In the Nigerian context, where factors such as oil prices, political stability, and exchange rates exert influence on the domestic stock market, international investments can be seen as riskier due to foreign exchange fluctuations and distinct market dynamics (Elton et al., 2014). However, these investments may offer higher returns. Therefore, Nigerian investors can diversify across both domestic and international assets to mitigate the impact of market volatility.

Correlation and diversification: In Nigeria, where the local economy is susceptible to diverse influences, international investments can serve as a hedge. During periods of downturn in the Nigerian stock market, which could be triggered by factors like political instability, investments in international markets may not correlate as strongly, providing diversification benefits (Brinson et al., 1986).

Efficient Frontier: One of the most important principles in portfolio theory is the Efficient Frontier, which determines the portfolios with the best projected return relative to the risk level. Investors in Nigeria may tailor their portfolios to their unique risk tolerance and return objectives by using this method.

Asset Allocation: International investment flows in a diversified portfolio encompass not only international stocks but also international bonds and other assets. Nigerian investors can strategically allocate their assets across different countries and sectors to further reduce risk and enhance returns (Bodie *et al.*, 2014).

Portfolio theory's application in the Nigerian context involves designing investment strategies that encompass both domestic and international assets to augment stock market performance. International investments can provide exposure to global economic trends and industries that may not be available in the domestic market. This diversification can help mitigate the risks associated with the Nigerian stock market's susceptibility to local economic and political events. Nonetheless, it's essential to recognize that the effectiveness of portfolio theory in Nigeria is contingent on factors such as currency risk, taxation, and local regulations. Moreover, several macroeconomic and geopolitical events affect the relationship between international investment flows and stock market performance. Hence, it is crucial for investors to carefully evaluate their investment goals and willingness to take risks while using portfolio theory for international investments in Nigeria.

Empirical Review

Odili (2015) examined how FDI in Nigeria is affected by changes in the exchange rate and the stock market's performance. Time series data from 1980–2013 was used in the investigation. The estimates were obtained using an error correction model with the ordinary least squares technique. Findings indicate that changes in exchange rates have a negative and statistically significant impact on both the short-term and long-term flows of FDI into Nigeria. Another metric of stock market success, market capitalization, was also shown to have a positive and statistically significant effect.

The connection between the NSE and Foreign Portfolio Investment Flow (FPIF) was investigated by Okolie and Ehiedu (2023) using data from 1981 and 2022. Investments in Equities, Bonds, and Money Market Instruments from Foreign Portfolios (FPIF) were the primary factors considered while assessing FPIF. For the Nigerian Stock Exchange, however, TNKTC was the metric of choice. This research made use of an ex-post facto method. A lot of the secondary data included in the research came from the following places: IMF World, WDI, CBN Statistical Bulletins, and reports from the National Stock Exchange (NSE). The research checked for stationarity using the unit root test. The Johansen co-integration test was then used to evaluate the time-dependent dependency of the variables. Using the E-VIEW 9.0 software, the investigation was conducted. According to the results, BFPI and MMIFPI significantly influence TMKTC positively, whereas EFPI has a positive but insignificant influence.

The impact of foreign portfolio investment volatility on Nigerian stock market profitability was investigated by Agu et al. (2019). To explore this impact, the researchers employed a methodology that combined the Ordinary Least Square (OLS) and Auto Regressive Distributed Lag (ARDL) techniques. For testing purposes, this model utilizes the features of a UECM (unconstrained error correction model). This thorough statistical analysis aimed to determine how foreign portfolio investment impacted returns on the Nigerian stock market. The intricate connection between FDI and the Nigerian stock market's performance may be better understood with the help of this empirical investigation. Local lawmakers and investors should consider the report's conclusions.

The impact of equity investments in foreign portfolio on NSM performance was studied by Iriobe et al. (2018). This retrospective analysis used monthly time series data spanning 2007 to 2017. The distribution of foreign portfolio investment (FPI) inflows across the major sectors of the Nigerian economy is significantly different according to the Autoregressive Distributed Lag (ARDL) model and the Kruskal-Wallis non-parametric test. Furthermore, empirical evidence reveals that foreign portfolio equity investment considerably and favourably influences the performance of the Nigerian stock market at a 5% significance level (t-stat = 6.8913, P = 0.00000.05; R2 = 0.77). The research concluded that FIPI (foreign portfolio equity investment) is a valid measure of Nigerian stock market performance. Consequently, the research suggests that regulatory authorities should broaden the selection of equities stocks offered in the market and promote increased participation of enterprises in listing on the NSM. This will stimulate more significant inflows of investments into the economy and accelerate the process of industrialization and growth.

Onyeisi et al. (2018) examined the influence of foreign portfolio investment (FPI) inflows on the expansion and advancement of the National Stock Market (NSM) from 1986–2014. The research utilised a variety of econometric methods, including a vector error correction model, cointegration, and Granger causality. The results showed that there is one co-integrating equation in the model, which is significant at the 5% level of analysis. The Granger causality test also found no correlation between foreign portfolio investment (FPI) and stock market growth. These findings suggest that, in an ideal economic climate for FPI development, the inflow of FPI could positively impact stock market growth. In order to attract a consistent flow of FPI, the federal government of Nigeria should strengthen the Securities and Exchange Commission (SEC). Given Nigeria's significant import dependence, the Central Bank of Nigeria (CBN) should implement a proactive strategy in supervising foreign currency operations. In addition, the government should bolster the capital markets to guarantee that the growth rate of domestic trade volume surpasses that of foreign portfolio investment (FPI).

The impact of foreign direct investments on GDP growth in Nigeria from 1981 to 2021 was examined by Chude and Chude (2023). The primary objective of the study was to determine how much of an effect foreign direct investment have on the functioning of the Nigerian economy. This data was analysed using Ordinary Least Squares (OLS). The research relied on secondary data collected over a number of years from the CBN Statistical Bulletin. Variables such as real GDP, foreign aid, FDI, and international workers' remittance were considered. The researcher used the following tools: the Error Correction Model (ECM), co-integration analysis, and a unit root test. The research offers statistically substantial proof that foreign assistance has a positive impact. Statistical analysis confirms that FDI has a positive impact. There is no statistical significance and the workers' remittance is negative. The research found that Nigeria's growth was positively and significantly impacted by the influx of foreign direct investment.

3.METHODOLOGY

Research Design

The research design chosen for this study integrates various components to effectively address the research problem. This paper employed an ex-post facto research design due to the availability of secondary data and the focus on past events.

Population

The population of the study encompasses the entire economy, while the sample population was drawn from available data representing foreign direct investment flows, foreign portfolio investment flows and stock market capitalization.

Sample Size and Sampling Technique

The sampling technique used judgmental sampling to identify crucial factors. Concurrently, secondary sources were used for data collecting, namely the annual reports (CBN) of the Central Bank of Nigeria covering the years 1994–2022. The capitalization of the stock market served as the dependent variable, with FDINF and FPINF serving as the independent variables. The investigation used time-series data spanning from 1994 to 2022.

Methods of Data Analysis

Using appropriate procedures, the time series data was examined and evaluated. Diverse methodologies were used to analyse the gathered data in this study. In addition to the regression analysis done using Eviews 9.0, the statistical studies used in this study included tests for normality, descriptive statistics, and cointegration.

Normality Test and Descriptive Statistics Test

To determine if a dataset adheres to a normal distribution, Normality tests are typically employed, evaluating the likelihood of its conformity to a standard bell curve. Frequently, sample datasets exhibit right-skewness due to various factors, rendering comparisons of means unreliable unless data normalization techniques are applied. In this study, descriptive statistics tests were conducted using Eviews software to delve deeper into the analyzed variables. Descriptive statistics involve presenting numerical data in tabular form, summarizing dataset characteristics. This serves as a precursor to further analyses, such as multiple regression. Descriptive analyses for each study variable included mean, minimum, and maximum scores, as well as skewness, kurtosis, and standard deviation. These statistics provide insight into the data's distribution, central tendency, variability, and form.

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Cointegration Test Analysis

The researcher checked for stationarity or unit roots in the variables before considering the possibility of cointegration. If the variables are cointegrated, they have a common trend and connection over the long run. The researcher used Johansen and Juselius's (1990) multivariate cointegration test method to investigate this. The rank of the cointegration matrix and the number of cointegrating vectors are determined using two test statistics in this technique, the trace (λ-trace) and maximum eigenvalue (λ-max) statistics.

Ordinary Least Squares (OLS) Regression Test Analysis

Multiple linear regression improves the simple linear regression model by incorporating additional independent variables to predict a dependent variable. Using this strategy, we may investigate how several independent factors affect a response variable. Concurrently, these independent variables are tested in multiple regression to see how they affect a ratio-or interval-scaled dependent variable. This research used multiple regression analysis to determine how each independent variable related to the dependent variable. Regression analysis is often used to predict the value of one variable depending on another and examine correlations between variables. To conduct a comprehensive analysis and draw accurate findings, the data used in this research satisfied all the requirements for regression analysis. Specifically, regression analysis showed how changes in explanatory factors affected the dependent variable, all other things being equal. In addition, it found the components that explained the dependent variable and investigated their relationships. After significance testing, the null hypothesis (Ho) was rejected if the computed p-value was less than the 5% (0.05) significance threshold.

Model Specification

An economic model is a simplified representation of an economic phenomena that attempts to capture its essential characteristics without actually replicating them. A model is defined according to the data that is pertinent to the research. The model is specified below as:

$SMcap = f(\text{FDINF, FPINF})$ **(i)**

The linear regression equation based on the above functional relation is:

$SMcap_t = \beta_0 + \beta_1\ \text{FDINF}_{t-1} + \beta_2 \text{FPINF}_{t-2} + \mu$ **(ii)**

Where:

SMcap	=	Stock Market Capitalization
FDINF	=	Foreign Direct Investment Inflows
FPINF	=	Foreign Portfolio Investment Inflows

μ = error term

4.RESULTS AND DISCUSSION

Normality Test

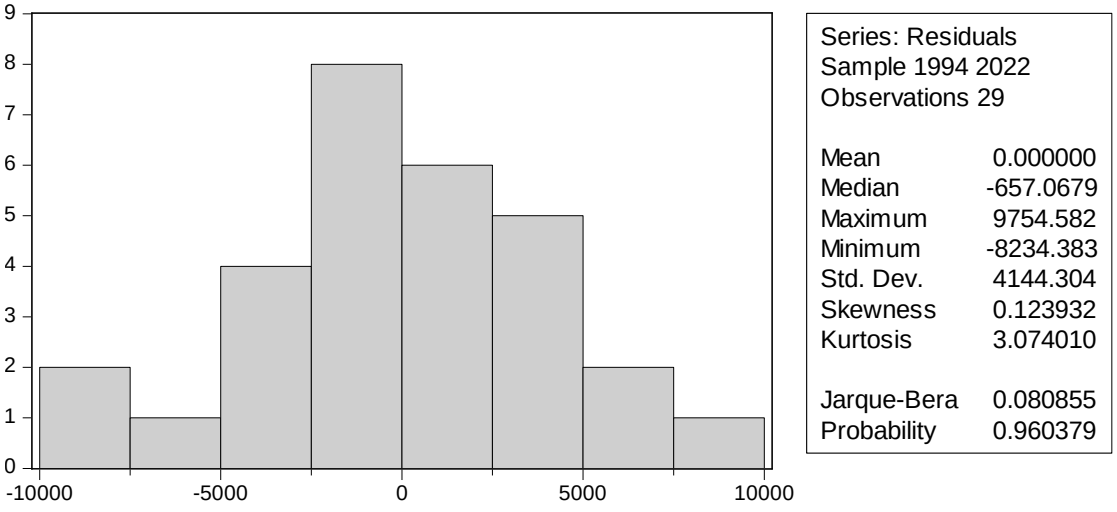

Figure 1: Normality Test

The probability value (p-value) derived from the histogram normality test is 0.960379, significantly surpassing the commonly employed 5% level of significance in hypothesis testing. This strongly suggests that there is ample evidence indicating the data adheres to a normal distribution.

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Descriptive Statistics

Table 1 Descriptive Statistics Result

	SMCAP	FDIINF	FPIINF
Mean	12049.56	14616538	3788351.
Median	9562.970	8111381.	1816468.
Maximum	51188.87	40572837	16623684
Minimum	66.30000	1432490.	346312.1
Std. Dev.	13685.26	12381095	4839626.
Skewness	1.316857	0.781400	1.468511
Kurtosis	4.124567	2.130338	3.675176
Jarque-Bera	9.909664	3.865044	10.97403
Probability	0.007049	0.144783	0.004140
Sum	349437.2	4.24E+08	1.10E+08
Sum Sq. Dev.	5.24E+09	4.29E+15	6.56E+14
Observations	**29**	**29**	**29**

Source: Researcher's computation

A comprehensive summary of the variables under analysis—stock market capitalization (SMCAP), foreign direct investment inflows (FDIINF), and foreign portfolio investment inflows (FPIINF)—is provided in the descriptive statistics table.

The table displays the measures of central tendency, dispersion, skewness, kurtosis, and normality tests for each variable. For instance, the mean values represent the average levels of each variable for the observed time. Specifically, SMCAP has an average of 12049.56, FDIINF has an average of 15581184, and FPIINF has an average of 4218999. The median values provide an understanding of the central value in the distribution of each variable, and the maximum and minimum values indicate the highest and lowest values recorded, respectively. Furthermore, the standard deviation quantifies the degree of variability or spread around the average value for each variable. Skewness and kurtosis are statistical measures that provide information on the symmetry and peakedness of distributions. Positive values of skewness imply right-skewed distributions, while positive values of kurtosis suggest leptokurtic distributions.

Cointegration Test Analysis

Table 2: Cointegration Test Analysis

Date: 02/28/24 Time: 22:53
Sample (adjusted): 1996 2022
Included observations: 27 after adjustments
Trend assumption: Quadratic deterministic trend
Series: SMCAP FDIINF FPIINF
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None	0.481332	27.43651	35.01090	0.2553
At most 1	0.208017	9.711269	18.39771	0.5086
At most 2	0.118792	3.414451	3.841466	0.0646

Trace test indicates no cointegration at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

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Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None	0.481332	17.72524	24.25202	0.2872
At most 1	0.208017	6.296818	17.14769	0.7873
At most 2	0.118792	3.414451	3.841466	0.0646

Max-eigenvalue test indicates no cointegration at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values
Source: Researcher's computation

The researcher aims to ascertain the presence of a long-term equilibrium connection among the variables under investigation. The Johansen cointegration test was used for this purpose. To find out if the variables SMCAP (stock market capitalization), FDIINF (foreign direct investment inflows), and FPIINF (foreign portfolio investment inflows) are cointegrated, the study used unrestricted cointegration rank tests, which specifically use both trace and maximum eigenvalue statistics, and assume a quadratic deterministic trend. No cointegration was found at the 0.05 significance level using the trace test. When the test statistics for each hypothesised cointegration ranking were compared to the critical values, it was found that the test statistics were more significant. Also, the maximum eigenvalue test did not show evidence of cointegration at the 0.05 significance level because the estimated statistics were higher than the critical values for all assumed ranks. These data indicate that the variables do not exhibit long-term correlations or shared patterns. Therefore, this suggests that the variables may act autonomously from one another over some time without showing a continuous trend of moving together.

Table 3: Ordinary Least Squares (OLS) Regression Analysis
Dependent Variable: SMCAP
Method: Least Squares
Date: 02/28/24 Time: 23:27
Sample: 1994 2022
Included observations: 29

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-956.2462	1342.357	-0.712364	0.4826
FDINF	0.000511	0.000146	3.489277	0.0017
FPIINF	0.001463	0.000374	3.907913	0.0006

R-squared	0.908294	Mean dependent var	12049.56
Adjusted R-squared	0.901240	S.D. dependent var	13685.26
S.E. of regression	4300.747	Akaike info criterion	19.66866
Sum squared resid	4.81E+08	Schwarz criterion	19.81011
Log likelihood	-282.1956	Hannan-Quinn criter.	19.71296
F-statistic	128.7575	Durbin-Watson stat	0.758363
Prob(F-statistic)	0.000000		

Source: Researcher's computation

The regression study shows that there are statistically significant positive correlations between both foreign direct investment (FDI) flows and foreign portfolio investment (FPI) flows, and stock market capitalization. More precisely, the coefficients for FDI inflows and FPI inflows are estimated at 0.000511 and 0.001463, respectively, with corresponding t-statistics of 3.489 and 3.908. These figures suggest that both FDI and FPI flows exert a significant and positive impact on stock market capitalization.

Decision: Foreign portfolio investment (FPI) flows and stock market capitalization has not been shown to have a statistically significant correlation, and the null hypotheses imply that there is no such link. For this reason, stock market capitalization is strongly related to the amount of FDI and FPI that enters a country.

DISCUSSION

The purpose of this research was to establish, by the use of the Johansen cointegration test, whether or not SMCAP, FDIINF, and FPIINF were positively associated with one another over the long term. The tests used the maximum and trace eigenvalue statistics at the 0.05 significance level, assuming a quadratic deterministic trend. These statistics did not show cointegration. This shows no persistent co-movement pattern between the variables, which may suggest that they become independent over time rather than sharing a long-term connection or mutual tendency. Consistent with previous research on the link between various kinds of investment flows and the performance of the Nigerian stock market, the results of the Johansen cointegration test are in line with those of Okolie and Ehiedu (2023), Agu et al. (2019), Iriobe et al. (2019), and Chude and Chude (2023).

On the other hand, the regression analysis showed significant positive connections between the inflow of foreign direct investment (FDIINF), the inflow of foreign portfolio investment (FPIINF), and stock market capitalization. These findings suggest that variations in foreign direct investment (FDI) and foreign portfolio investment (FPI) flows may influence the stock market's performance, especially in the short term. The regression analysis findings are consistent with the studies conducted by Okolie and Ehiedu (2023), Agu et al. (2019), Iriobe et al. (2018), and Chude and Chude (2023). These studies all indicate a positive and significant correlation between various investment inflows and stock market capitalization in Nigeria. This suggests a short-term influence of foreign direct investment inflows (FDIINF) and foreign portfolio investment inflows (FPIINF) on stock market performance. However, caution is warranted in interpreting these results, considering potential fluctuations in short-term dynamics that may not reflect longer-term equilibrium relationships.

5.CONCLUSION AND RECOMMENDATIONS

Conclusion

The results of the investigation on the connection between FDI and market cap yielded illuminating conclusions. Although there was no indication of a long-term equilibrium relationship among the variables in the cointegration tests, which could mean that they become independent over time, the regression analysis showed that FDI and FPI flows were positively related to stock market capitalization. According to these findings, short-term changes in FDI and FPI flows may affect stock market performance.

Recommendations

It is suggested that, according to the study's findings,

1. Policymakers should create an environment conducive to attracting and retaining foreign investment. This could involve implementing policies that facilitate foreign investment inflows, such as improving regulatory frameworks, enhancing investor protection measures, and promoting economic stability.
2. Policymakers should focus on measures to encourage and sustain foreign portfolio investment inflows. This could include initiatives to enhance market liquidity, improve market transparency and efficiency, and strengthen investor protection mechanisms.

Limitations of the Study

Despite the comprehensive approach adopted in this research, several limitations warrant consideration. The study employed judgmental sampling method, this may have introduced selection bias, potentially limiting the representativeness of the sample population and the generalizability of the findings. Moreover, the assumptions underlying the regression analysis and cointegration tests, such as linearity and stationarity, could affect the validity of the results if violated. Furthermore, while significant relationships between foreign investment flows and stock market capitalization were identified, caution must be exercised in inferring causality, as correlation does not imply causation. Finally, the context-specific nature of the findings may limit their applicability to other countries or regions, highlighting the need for further research to validate and contextualize the results in diverse settings.

REFERENCES

1. *Abdulraheem, Y. D. (2019). Foreign direct investment and economic growth in Nigeria: An empirical analysis. African Development Review, 31(1), 38–52. https://doi.org/10.1111/1467-8268.12376*

2. *Adaramola, A. O., Ogunbiyi, M. A., & Atanda, A. A. (2018). Impact of Stock Market Capitalization on Economic Growth in Nigeria: A Time Series Analysis. European Journal of Accounting, Auditing, and Finance Research, 6(7), 30-40.*
3. *Adegbie, F. F. (2015). Market capitalization and the Nigerian stock market: a reinvestigation. Journal of Accounting and Auditing: Research & Practice, 2015, Article ID 186237.*
4. *Adewumi, O. O., & Olagunju, S. A. (2020). Impact of foreign portfolio investment inflow on stock market performance in Nigeria. Journal of Economics and Finance, 11(4), 72–86. https://doi.org/10.5897/JEF2020.1047*
5. *Agu, A. O., Ogu, C., & Ezeanyeji, C. I. (2019). Foreign portfolio investment and stock market returns in Nigeria. IOSR Journal of Economics and Finance (IOSR-JEF), 10(6), 1-10.*
6. *Ali, M., & Iness, A. (2020). Capital inflows and bank stability around the financial crisis: the mitigating role of macro-prudential policies. Journal of International Financial Markets, Institutions and Money, 69, 101254.*
7. *Asongu, S. A., & Nting, R. (2020). Foreign capital flows, financial development, and economic growth in African countries. South African Journal of Economics, 88(3), 405-421.*
8. *Bodie, Z., Kane, A., & Marcus, A. J. (2014). Investments. McGraw-Hill Education.*
9. *Brinson, G. P., Hood, L. R., & Beebower, G. L. (1986). Determinants of portfolio performance. Financial Analysts Journal, 42(4), 39-44.*
10. *Chude, N. P., & Chude, D. I (2023). Effect of international capital inflows on economic growth in Nigeria. International Journal of Innovative Science, Engineering & Technology, 10(1), 112-125.*
11. *Dabwor, D. T., Iorember, P. T., & Yusuf Danjuma, S. (2022). Stock market returns, globalization and economic growth in Nigeria: evidence from volatility and cointegrating analyses. Journal of Public Affairs, 22(2), e2393.*
12. *Ekpo, G. M. (2023). The impact of exchange rate volatility on economic growth in Nigeria. Management, 4(1).*
13. *Frankel, J. A. (2005). On the renminbi: The choice between adjustment under a fixed exchange rate and adjustment under a flexible rate. NBER Working Paper No. 11274.*
14. *Ibrahim, U., & Mohammed, I. (2021). Foreign direct investment and economic growth in Nigeria: A time series analysis. African Journal of Economic Review, 9(1), 72–86. https://doi.org/10.46281/ajer.2105018.*
15. *Iriobe, G. O., Obamuyi, T. M., & Abayomi, M. A. (2018). Foreign portfolio equity investment and the performance of the Nigerian stock market: a sectoral distribution analysis. International Business and Management, 16(1), 29-38.*
16. *Moshirian, F. (2015). Globalization and the multinationals: What are the questions, and how well are we doing in answering them? Journal of Corporate Finance, 30, 166-188.*
17. *Obadan, M. I., & Ayodele, S. (2017). The impact of oil price shocks on the Nigerian economy: supply or demand-driven? OPEC Energy Review, 41(3), 266-292.*
18. *Obi, J. C. (2021). Foreign portfolio investment inflows and economic growth in Nigeria: An empirical investigation. International Journal of Financial Research, 12(2), 67–82. https://doi.org/10.5430/ijfr.v12n2p67*
19. *Odili, O. (2015). Exchange rate volatility, stock market performance and foreign direct investment in Nigeria. International Journal of Academic Research in Accounting, Finance and Management Sciences, 5(2), 172–184. http://dx.doi.org/10.6007/IJARAFMS/v5-i2/1693*
20. *Ogbonna, G. N., & Onwuegbuzie, A. M. (2020). Determinants of foreign portfolio investment inflows in Nigeria: Evidence from the Nigerian stock exchange. Journal of Financial Management and Analysis, 3(2), 45–59.*
21. *Ogbuigwe, A., & Ogbuigwe, A. (2020). Foreign direct investment and economic growth in Nigeria: An empirical analysis. Journal of Economic Development, Management, IT, Finance and Marketing, 12(1), 55–69.*
22. *Ojeka, S. A., & Adegbite, E. O. (2019). Foreign direct investment and economic growth in Nigeria: A causality analysis. Journal of Business & Economic Policy, 6(4), 12–26.*
23. *Ojo, O. O. (2019). Foreign portfolio investment inflows and stock market performance in Nigeria: A cointegration approach. Journal of Accounting, Finance and Auditing Studies, 5(3), 78–92. https://doi.org/10.46872/jafas1020.*
24. *Okafor, C. G., & Nweze, E. U. (2021). Impact of foreign portfolio investment inflows on the Nigerian economy: An empirical analysis. International Journal of Economics, Commerce and Management, 9(3), 21–36.*
25. *Okolie, J. O., & Ehiedu, V. C. (2023). Foreign portfolio investment flow (FPIF) and Nigerian Stock Exchange (NSE). International Journal of Management & Entrepreneurship Research, 5(2): 85-98. https://doi.org/10.51594/ijmer.v5i2.441*
26. *Olayinka, T., & Amos, A. (2020). Determinants of foreign direct investment inflows in Nigeria: A co-integration approach. International Journal of Economics and Financial Issues, 10(1), 83–90.*
27. *Onuoha, F. C. (2021). Foreign portfolio investment inflows and economic growth in Nigeria: Evidence from a time-series analysis. African Journal of Economic Review, 9(2), 112–125. https://doi.org/10.46281/ajer.2105019.*
28. *Onyeisi, O. S., Odo, I. S. & Anoke, C. I. (2018). Foreign portfolio investment and stock market growth in Nigeria. Developing Country Studies, 6(11), 64-76.*
29. *Osabohien, R., Awolola, O. D., Matthew, O., Itua, O. Q., & Elomien, E. (2020). Foreign direct investment inflow and employment in Nigeria. Investment management and financial innovations, 17(1), 77-84.*
30. *Oyelaran-Oyeyinka, O., & Lal, K. (2019). The impact of foreign portfolio investment inflows on economic growth in Nigeria. Journal of Finance and Investment Analysis, 8(2), 110–125.*

31. *Oyinlola, A., & Olowe, S. (2019). Macroeconomic variables and stock market performance in Nigeria. Future Business Journal, 5(1), 58-68.*
32. *Oyinlola, A., & Olowe, S. (2019). Macroeconomic variables and stock market performance in Nigeria. Future Business Journal, 5(1), 58-68.*
33. *Umar, H. M., & Shittu, W. O. (2020). Stock market performance and economic growth in Nigeria: An empirical analysis. Lapai Journal of Economics, 4(1), 1-11.*
34. *UNCTAD. (2021). World investment report 2021: Investment and new industrial policies. United Nations. https://doi.org/10.18356/8b7eaeff-en.*
35. *Wang, M., & Blomström, M. (2012). Foreign direct investment and the location of poverty. World Development, 40(1), 171-184.*