

# Unlocking Nigeria's Economic Potential: The Impact of Financial Openness on Stock Market Growth

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**Abstract:** *In Nigeria, despite the long existence of the stock market, its poor level of development remains a concern. Financial openness may aid the development of Nigeria's stock market, especially with regard to increasing foreign participation in the market. The growth of financial activity, especially the banking sector, is dependent on external financial openness. This study examines how financial openness influences Nigeria's stock market. A descriptive statistics test, correlation analysis, stationarity test and co-integration test were carried out and to analyse the model, the autoregressive distributed lag (ARDL) regression method was employed. The study covered a time period of 37 years from 1984 to 2020. The Findings reveal that financial openness has a significant impact on Nigerian stock market development. To preserve foreign portfolio investment, the study proposes increased openness incentives to increase international stock market involvement. The study recommends that favourable investment policies by the government should be created to stimulate foreign participation.*

**Keywords:** Exchange rate; Financial liberalisation; Financial openness; Foreign direct investment; Stock market development

**JEL Classification:** F31, G28, F36, F21, G10

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## 1. Introduction

The key macroeconomic objective of every nation is how best to attain sustainable economic growth (Pradhan et al, 2024). A means of achieving that is through financial liberalisation. Developed nations undertook monetary liberalisation in the 1980s mostly on recommendations by international development establishments, such as the World Bank and the International Monetary Fund (IMF). In the last two decades, stock markets in developed and developing countries across the world have experienced development (Alajekwu et al., 2013). In Nigeria, the stock market experienced remarkable growth from 1985 with relatively little market capitalisation, ₦6.6 billion, to an average of ₦13 trillion in 2014 (Araoye & Ajayi, 2018). Given this magnitude of market capitalisation increase, the capability to assemble wealth and spread risk has been demonstrated.

The limited focus of financial liberalisation has led to greater emphasis in recent times on greater openness of financial systems to foreign financial inflows (Gabriel & David, 2021; Schroeder et al., 2019; Capraro & Panico, 2021; Park, 2019; Yang et al., 2019; Adegboye & Ikponmwosa, 2013). According to Egwuatu and Nnorom (2018), this result is mostly due to capital inflows from overseas investors and the falling interest rate on fixed-income instruments. Although this good stock market performance has been partly attributed to macroeconomic indicators, including the improved gross domestic product (GDP), nevertheless the openness of the financial system might have played a role.

Low stock market development is a feature of developing countries, especially countries in Sub-Saharan Africa (Opperman & Adjasi, 2019). Financial openness may aid the development of Nigeria's stock market, especially with regard to increasing foreign participation in the market and boosting liquidity. Peculiar features of the Nigerian economy, such as poor institutions and inefficiency of firms, give cause for concern about the benefits of such openness, include whether the increased financial inflow will be realised by the Nigerian stock market, and consequently benefit the Nigerian economy (Aman et al., 2024). This is more so in light of limited recent studies highlighting financial openness and its impact on Nigerian stock market development.

The contribution of this research is that recent studies on financial system openness are few, and popularly highlight an optimistic effect on

economic growth (Hakim & Budi, 2024; Aman et al., 2024; Sahoo & Sethi, 2024; Mohamed, 2023; Yu et al., 2023), ecological sustainability (Jabeen et al., 2023), and technological innovation (Zheng et al., 2023). However, most of the studies have been performed as panel data studies covering multiple nations including Nigeria, bringing together countries with stock markets at different levels of development. Therefore, the findings of such studies, which are generalised, may not apply to individual countries. Furthermore, this study makes use of an array of control variables as well as a comprehensive regression methodology, autoregressive distributed lag (ARDL), to provide reliable research findings.

Consequently, there is a need for researchers to test the impact of financial openness and stock market development for further understanding of the subject as pertains to Nigeria. This is more so as the Nigerian stock market has undergone reforms in recent times, including a move towards greater financial openness, which has recorded some significant performances. Such empirical revelations will guide policymakers in presenting a more precise optimal policy outcomes that integrate the best mix of trade policy and also foreign direct investment policy that will eventually lead to improved and sustainable economic development. Furthermore, understanding the efficiency of Nigeria's macroeconomic policy coordination in increasing the economy's aggregate, including stock market performance, is crucial given the country's status as an economic powerhouse in Africa. This study, therefore, fills the gap in the literature noted above.

## **2. Literature Review**

### ***2.1 Conceptual review***

#### ***2.1.1 Stock market development***

The stock market is an essential component of both developed and developing countries' financial systems (Aharon et al, 2023). This is related to stock markets' ability to provide liquidity for investors, facilitate savings, mobilise funds for investment, give portfolio and diversification opportunities for investors, and assist in communicating information about firms' prospects to possible investors and creditors.

According to Hu et al. (2023) and Shahbaz et al. (2023), economic expansion may be fuelled by stock market activity in two ways. First, the stock market makes it possible to access fund for infrastructural development. Second, participants in stock markets have broader access to diversified portfolios. Stock market development denotes the practice of improving the financial intermediation process, stock market quality and quantity, and stock market efficiency. The emergence of stock markets, particularly in emerging nations, represents an alternative source of capital (Petry et al., 2023).

### *2.1.2 Financial openness*

Many researchers identify financial openness as the most important type of financial liberalisation (Aman et al., 2024; Yu & Qayyum, 2023; Naghavi, 2014; Barnor & Wiafe, 2015; Awiagah & Choi, 2018). Capital account openness, which is sometimes used interchangeably with financial openness, can be linked to the external conditions and impacts financial liberalisation. According to Wan et al. (2023), financial liberalisation may involve the process of liberalising domestic financial markets, reducing managerial or legal constraints on capital movements, and therefore providing the circumstances for domestic financial system's integration into the global market.

Financial openness refers to a country's willingness to apply liberalised business and trade policies with other countries in international trade. When the state completely relinquishes its monopoly on the ownership of the means of production, it is sometimes referred to as financial openness, as well as the encouragement of private sector engagement. It demonstrates a country's level of participation in the global trading system (Zheng et al., 2023). As a result, financial openness implies the steady lowering or removal of limitations on capital flows to a country. The more lax or fewer the regulations, the more open the country is. This is because, most countries regulate the amount of money that can be invested in and transferred out of the country, as well as the amount of control that foreign businesses or governments can have over a country's financial institutions. This can cause a phenomenal change in the structures and business modus operandi in international capital flows (Ofoeda et al., 2024)

Despite the fact that they are distinct, the concepts of financial openness and financial development are frequently associated. As a financial system

evolves and becomes more sophisticated, it becomes more exposed to foreign capital and more tightly integrated with other financial systems (Botta et al., 2023). While FDI inflows would aid development by bringing in cutting-edge foreign technology, it would also improve managerial skills and other know-how; making domestic markets more competitive through the entry of foreign firms. These benefits would be improved by the fact that FDI inflows would also increase inequality, and non-FDI inflows would help development by allowing domestic firms to access foreign savings (Murdipi et al., 2023).

## **2.2 *Theoretical review***

Based on the work of McKinnon and Shaw (1973), this research examines the financial repression hypothesis, also known as financial repression theory (Yousuf, 2024), which posits that excessive government regulation of the financial system discourages high-yield investment projects in favour of lower-quality endeavours that stand a better chance of securing low-interest loans. According to the financial repression hypothesis, which will be applied in this study, increased financial openness will stimulate competition (Aman et al., 2024) in the Nigerian stock market, leading to a shift in the flow of capital from less efficient to more efficient firms. These latter firms will then be better able to put the increased availability of capital to productive use by borrowing it from the market. In light of the study's arguments in favour of financial openness, the financial repression hypothesis is appropriate here.

## **2.3 *Empirical review***

Aman et al. (2024) analyse annual panel data from 35 developing and emerging economies (DEEs) over a 40-year period to determine whether financial openness can contribute to the preservation of external price competitiveness. Their findings indicate that export competitiveness is not enhanced by financial openness in isolation; rather, it is enhanced by increased trade openness. Furthermore, institutions that exhibit superior quality may be able to sustain their export competitiveness through financial openness. Aman et al. (2024) also show that financial openness alone is insufficient to enhance the external competitiveness of an emerging economy. However, it is beneficial in the presence of improved institutions or greater

trade openness, which results in reduced trade costs and increased price competitiveness for countries.

Yu and Qayyum (2023) investigate the influence of financial openness, human capital, institutional quality, and banking sector concentration on economic outcomes. The researchers use the generalised method of moments (GMM) and dynamic panel models to make an estimate. The findings indicate that enhancing financial transparency might have a substantial effect on economic complexity, but the specific implications may vary across different businesses and countries. Obayagbona and Igbinoia (2021) examine the effect of financial liberalisation on the growth of the Nigerian stock market. The Central Bank of Nigeria (CBN) statistical bulletin and the African Development Bank's database was mined for 33 years of time series data (1986 to 2018). Adopting the vector error correction model (VECM) methodology, they find that the degree of financial openness had no significant effect on the Nigerian capital market either in the short or long run.

Khatun and Bist (2019) examine financial development, financial services and trade openness in their analysis of the BRICS economies. World Bank and IMF global development indices, together with data from nations like Brazil, Russia, China, and South Africa, were consulted to compile the aforementioned set of statistics for the years 1990 to 2012. The findings of a panel co-integration study demonstrate that openness in financial services trade contributes positively to economic development. Ho and Odhiambo (2018) study macroeconomic variables that influenced the growth of the Philippine stock market. The IMF and the World Federation of Exchanges were only two of the many secondary sources used to compile data for the years Q4 2001 through Q4 2016. This research used ARDL testing to inquire into the impact of macroeconomic factors on the growth of the stock market. The ratio of market capitalisation to GDP was used to evaluate stock market growth, whereas the growth of the banking sector, inflation, exchange rate, economic expansion, and trade openness are all examples of macroeconomic drivers. Long-term effects of trade openness on the stock market growth are negative, as shown by the ARDL limits test for co-integration, whereas short-term effects of banking sector growth and the exchange rate are positive. In order to promote the short-term growth of the stock market, the research suggested that policymakers establish policies that favour the expansion of the banking sector. Finally, for the sake of the stock market's short-term

development, the country's officials should work to safeguard the stability of the home currency.

The effect of financial advancement and trade openness on Nigeria's economic growth was studied by Danlami et al. (2018). The information for this analysis comes from the World Bank's World Development Indicators (WDI), which covers the years 1980 to 2016. Using ARDL, they find that financial instability has a substantial negative association with growth, whereas financial liberalisation has a weak positive link with growth. The research recommended boosting productivity, instituting a savings culture, and reducing resource consumption to promote capital accumulation as a means to maintain Nigeria's economic development over the long term. Institutional frameworks were analysed by Agyemang et al. (2018) to see how they affected the growth of Africa's financial markets. Over a six-year period, 2009 to 2015, the World Economic Forum provided data for 40 African nations. Loan accessibility and venture capital funding were used as indicators of a mature financial industry. The effectiveness of the system's institutions was evaluated using global governance indicators. The research showed that well-established institutions helped propel the growth of Africa's financial markets. The study suggests that African nations strengthen their institutions via the stricter law enforcement and harsher punishments for lawbreakers.

Awiagah and Choi (2018) analyse the effects of increased trade openness on the growth of the Ghanaian stock market. This research uses data from the WDI over a 26-year period (Q1 1991 to Q4 2016). Trade openness was determined by the sum of imports and exports as a percentage of GDP, while market capitalisation was determined by using the market capitalisation ratio. Using a VECM analysis, they find that freer trade contributes significantly to rising stock prices. Odo et al. (2016), meanwhile, studied the effects of FDI on the expansion of the Nigerian stock market. Employing both the cointegration model and VECM, they find that foreign direct investment was determined by the amount of money coming in from abroad, while the expansion of the stock market was measured by the increase in its market capitalisation relative to GDP. The results indicate that FDI negatively correlates with the expansion of stock markets. The government, the study suggests, should make an active effort to entice outside investors interested in Nigeria to utilise the country's stock market.

### 3. Methodology

This study adopts the ex-post facto research design to achieve the research objective. In this study, both descriptive and inferential statistics are employed. ARDL modelling is employed to investigate the relationship between the variables of interest. The ARDL approach allows for the examination of both short-term and long-term dynamics within a single framework, accommodating the potential presence of endogeneity and non-stationarity in the data. Specifically, we used data from the WDI and the CBN statistical bulletin.

#### 3.1 Model specification

The goals of the research were attained by adapting the model of Baltagi et al. (2007) to include GDP per capita, which was then used to assess the variables of interest. Therefore, equation (1) below may be used as the econometric function for this study:

$$SMCG = f(FPI, GDP, GDPPC, FDT) \quad (1)$$

Equation (2) below is specified as an econometric model:

$$SMCG_t = \beta_0 + \beta_1 FPI_t + \beta_2 \log GDP_t + \beta_3 GDPPC + \beta_4 FDT_t + \mu_t \quad (1)$$

where *SMCG* represents stock market capitalisation to GDP, *FPI* is foreign portfolio investment, *GDPPC* is GDP per capita, *FDT* is financial depth, *GDP* is gross domestic product,  $\mu$  is disturbance/ error term,  $\beta_0$  is the constant, and  $\beta_1, \dots, \beta_6$  are the coefficients of the model's independent variables. The subscripts, *t*, denote the time span of observations, which in the case of the current study is  $t = 1984-2020$ .

#### 3.2 Definition and measurement of variables

The details provided in Table 1 gives a summary of the adopted variables and their measurement.

**Table 1:** Definition and Measurement of Variables

Variable	Measurement	Source
Stock market development (SMCG)	Stock market capitalisation to GDP	Destek et al. (2023)
Foreign portfolio investment (FPI)	Foreign portfolio investment, as percentage of GDP	Edo & Kanwanye (2022)
GDP per capita (GDPPc)	Gross domestic product divided by population	Wang et al. (2023)
Financial depth (FDT)	Domestic credit to private sector as percentage of GDP	Mbona (2022)
Gross domestic product (GDP)	Calculated per capita in current prices (US\$)	Destek et al. (2023)

## 4. Empirical Results

### 4.1 Descriptive statistics

This section summarises the key characteristics of the study variables, identifying patterns, trends, and anomalies in the data. These statistics, presented in Table 2, are essential for understanding the underlying distribution and informing subsequent analyses.

**Table 2:** Descriptive Statistics

	FDT	FPI	GDP	GDPPC	SMC
Mean	9.5368	-0.5335	2.05E+11	1.4226	11.1316
Median	8.2489	-0.1741	9.51E+1	1.5960	10.1361
Maximum	19.6256	1.0020	5.74E+11	12.27614	30.5089
Minimum	4.9575	-3.9424	2.78E+1	-4.5071	2.4974
Std. dev.	3.5624	1.0638	1.80E+1	3.7956	5.9102
Skewness	1.0454	-1.5541	0.6209	0.4757	1.3666
Kurtosis	3.7213	5.2438	1.7728	3.3044	5.1458
Jarque-Bera	7.5426	22.6560	7.5426	1.5384	18.6163
Probability	0.0230	0.0000	0.0230	0.4633	0.0000
Observations	37	37	37	37	37

The statistical data provided in Table 2 gives a thorough summary of important economic indicators for Nigeria as regards international trade and economic growth throughout the duration of the study. The mean GDP

is 205 billion units, while the median is 95.1 billion units, indicating a skew towards higher values. GDP ranges from 27.8 billion to 574 billion units, with a standard deviation of 180 billion units, highlighting significant variability. The data is positively skewed (skewness of 0.6209) and platykurtic (kurtosis of 1.772), suggesting a flatter distribution with fewer outliers. The Jarque-Bera test statistic of 7.5426 (p-value 0.0230) indicates non-normality. The total GDP sum is 7.585 trillion units, and the sum of squared deviations is 32.4 quadrillion units. These statistics reveal substantial economic disparities, providing valuable insights for economic analysis and decision-making.

The descriptive statistics indicate that the variables related to financial openness and stock market development in Nigeria exhibit little variability and normal distributions. These findings underscore the complexity of financial openness' impact on stock market development in Nigeria, suggesting that both positive and negative forces are at play.

**4.2 Multicollinearity test**

Ensuring the absence of multicollinearity in the model was of utmost importance, since its presence would lead to inaccurate or misleading findings. Correlation matrix testing was employed to assess the presence of multicollinearity. Correlation analysis examines the relationship between dependent and independent variables in a model by quantifying the degree of correlation between them. It also demonstrates the level of interdependence between two variables that are considered independent. Table 3 displays the correlation matrix for the given data set.

**Table 3:** Correlation Matrix

Correlation probability	SMC	GDPPC	GDP	FPI	FDT
SMC	1.0000				
	-				
GDPPC	-0.0129	1.0000			
	0.9392	-			
GDP	0.1180	0.0273	1.0000		
	0.4865	0.8722	-		
FPI	0.1419	-0.0500	-0.1352	1.0000	
	0.4020	0.7685	0.4249	-	
FDT	0.2052	0.1095	0.7310	0.0221	1.0000
	0.2230	0.5187	0.0000	0.8964	-

The correlation matrix reveals that stock market capitalisation (SMC) has very weak correlations with GDP per capita (GDPPC), GDP, foreign portfolio investment (FPI), and foreign depth (FDT), indicating almost no significant linear relationships. GDP per capita shows minimal correlations with other variables, suggesting a limited direct association. GDP has a strong positive correlation with FDT (0.731), implying that higher GDP levels are significantly associated with higher foreign depth. The weak correlations among the variables and the absence of multicollinearity issues suggest that these variables can be used independently in regression analysis to investigate the impact of financial openness on stock market development in Nigeria.

#### 4.3 Unit root tests

The unit root test results using the augmented Dickey-Fuller (ADF) statistic are presented in Table 4. ADF tests are employed in econometric analysis to determine if a time series has a unit root, suggesting non-stationarity. The ADF test is a popular unit root test that accounts for autocorrelation by including lagged difference terms. If the ADF test  $p$ -value is below 0.05, the null hypothesis of a unit root is rejected, indicating that the variable is stationary. Conversely, if the  $p$ -value exceeds 0.05, the null hypothesis is not rejected, and the variable is considered non-stationary. Table 4 shows the ADF test results for various levels and differences.

**Table 4:** Summary of ADF Unit Root Tests

Variable	ADF Statistic	5% Critical Value	Oder of Integration
SMC	-3.2712	0.0239	I(0)
GDPPC	-4.1592	0.0025	I(0)
GDP	-4.2807	0.0024	I(0)
FPI	-5.1920	0.0001	I(0)
FDT	-5.5528	0.0001	I(1)
FDI	-7.9011	0.0000	I(0)

Note: \* indicates significance at 5% (0.05)

Table 4 presents the results of the ADF unit root tests for six variables. The results indicate that SMC, GDPPC, GDP, FPI, and FDI are stationary at

level  $I(0)$ , as their ADF statistics are significant at the 5% level, rejecting the null hypothesis of a unit root. However, FDT is stationary at first difference  $I(1)$ , as indicated by the ADF statistic and significance level. This means that while most variables are stationary without differencing, FDT requires differencing to achieve stationarity.

**4.4 Bounds test**

**Table 5:** Summary of Bounds Test

F-Bounds Test		Null Hypothesis: No levels relationship		
Test statistic	Value	Significance	I(0)	I(1)
Asymptotic: n = 1000				
F-statistic	3.5383	10%	2.20	3.09
K	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37

Note: \* indicates significance at 5% (0.05).

In the given  $F$ -bounds test, the  $F$ -statistic is 3.538250, and the model includes four regressors ( $k = 4$ ). The  $F$ -statistic is compared to the critical value bounds provided for 5% significance level. These bounds are divided into lower ( $I(0)$ ) and upper ( $I(1)$ ) critical values. The lower bound assumes all variables are stationary, while the upper bound assumes they are integrated of order one. At the 5% significance level, the critical values are 2.56 for the lower bound and 3.49 for the upper bound. Since the  $F$ -statistic (3.538250) exceeds the upper bound, it allows for the rejection of the null hypothesis and affirm the presence of a long-term equilibrium relationship at the 5% level.

**4.5 Regression analysis**

After conducting necessary preliminary tests to ensure data quality, address multicollinearity, confirm stationarity, and unit root tests, the study proceeded with regression analysis. Table 6 presents the ARDL long-run analysis results.

**Table 6:** ARDL Long-Run Analysis

Dependent variable: SMC				
Variable	Coefficient	Std. error	t-statistic	Prob.*
SMC(-1)	0.3717	0.1694	2.1941	0.0370
FPI	-0.6845	0.8559	-0.7998	0.4308
GDPPC	-0.5290	0.2807	-1.8843	0.0703
LNGDP	8.3940	5.8191	1.4425	0.1607
LNGDP(-1)	5.8716	7.8890	0.7443	0.4631
LNGDP(-2)	-15.3723	5.4106	-2.8412	0.0084
FDT	0.2922	0.4383	0.6665	0.5107
C	31.7786	35.5210	0.8946	0.3789
$R^2$	0.4723	Mean dependent variable		11.2454
Adjusted $R^2$	0.3355	Std. dev. dependent variable		6.0611
F-statistic	3.4522	Durbin-Watson statistic		2.2237
Probability (F-statistic)	0.0091			

Note: \* indicates significance at 5% (0.05).

In the ARDL long-run analysis, several variables are examined in relation to their impact on stock market capitalisation in Nigeria. The lagged value of SMC has a positive coefficient of 0.37, which is statistically significant at the 5% level ( $p$ -value = 0.0370). This suggests that past values of SMC positively influence its current values, indicating persistence in stock market development over time.

The coefficient for FPI is -0.68 with a  $p$ -value of 0.4308, which is not statistically significant. This implies that foreign portfolio investment does not have a significant impact on stock market capitalisation in the long run. The coefficient for GDPPC is -0.53 with a  $p$ -value of 0.0703, which is marginally above the 5% significance level. This negative coefficient suggests a potential inverse relationship between GDP per capita and stock market capitalisation, though the result is not statistically robust.

The coefficient for the log of GDP is 8.39 with a  $p$ -value of 0.1607, indicating a positive but not statistically significant relationship with stock market capitalisation. This suggests that overall economic output may positively influence stock market development, though the evidence is not strong. The first lag of the log of GDP has a coefficient of 5.87 with a  $p$ -value of 0.4631, indicating an insignificant impact on stock market

capitalization. This suggests that previous periods' GDP levels do not significantly affect the current stock market capitalisation. The second lag of the log of GDP has a significant negative coefficient of -15.37 with a  $p$ -value of 0.0084, indicating that GDP from two periods ago has a strong negative impact on current stock market capitalisation. This could imply that earlier economic output has a delayed adverse effect on the stock market.

The coefficient for FDT is 0.29 with a  $p$ -value of 0.5107, indicating that financial depth does not have a statistically significant impact on stock market capitalisation. This suggests that changes in financial depth levels do not directly influence the stock market in the long run. The constant term has a coefficient of 31.78 with a  $p$ -value of 0.3789, which is not statistically significant. This implies that the average level of stock market capitalisation, when all other variables are held constant, does not significantly differ from zero.

The  $R$ -squared value of 0.47 indicates that approximately 47% of the variation in stock market capitalisation is explained by the model. The adjusted  $R$ -squared value of 0.34 accounts for the number of predictors in the model, suggesting a moderate fit. The standard error of regression is 4.94, and the sum of squared residuals is 659.13, indicating the typical deviation of the observed values from the regression line. The  $F$ -statistic of 3.45 with a  $p$ -value of 0.0091 indicates that the overall model is statistically significant. The Durbin-Watson statistic of 2.22 suggests that there is no significant autocorrelation in the residuals.

## 5. Discussion

The ARDL long-run research shows that historical stock market capitalisation values have a considerable influence on current values, suggesting persistence and potentially reflecting investor confidence and market maturity. This conclusion is critical for policymakers and financial regulators seeking to stabilise and expand the stock market. Understanding that past success has an impact on future values allows for efforts to maintain good momentum through consistent policy initiatives, investor education, and a stable economic environment. In practice, this could imply that stable and favourable government policies towards the stock market, such as tax breaks and regulatory assistance, can produce a positive feedback loop, hence increasing market capitalisation.

Interestingly, GDP per capita has a possible but not statistically significant negative impact on stock market capitalisation. This shows that, while individual economic prosperity is important, other macroeconomic factors may have a greater influence on Nigeria's stock market growth. For example, a strong overall GDP has a more complex relationship, with delayed negative effects on stock market capitalisation. This could be attributed to economic adjustments or market corrections that occur following times of economic expansion. Policymakers should exercise caution when interpreting GDP growth as a direct sign of stock market health, taking into account the broader economic cycle. This may be seen in how central banks and governments tighten monetary policies after periods of strong GDP growth to avoid overheating, which can have an effect on stock market performance.

Foreign portfolio investment and financial depth have no substantial long-term effects on stock market capitalisation. This demonstrates that short-term foreign investments and borrowing may not contribute sustainably to stock market growth. Policymakers and financial experts should prioritise creating a stable and favourable investment environment that encourages long-term local and foreign investment. Enhancing the legal and regulatory framework to safeguard investors, as well as boosting market infrastructure and fostering transparency can all help to attract long-term investment. This technique has been effectively implemented in countries that have developed investor-friendly settings, resulting in more robust and resilient stock markets.

This suggests that financial openness possesses a considerable impact on the development of the Nigerian stock market. Given these findings, it is clear that FPI and FDT are necessary and sufficient condition for the growth of Nigeria's stock market. Aman et al (2024), Ali (2014), Arikpo and Ogar (2018) all discovered similar findings Awiagah and Choi (2018) also found a positive and large correlation between trade openness and stock market development, therefore our results are congruent with theirs. However, Wang et al. (2019) and Omodero and Ekwe (2017) presents a contradicting finding to that of this study.

## **6. Conclusion and Recommendations**

This study analysed the impact of financial openness on stock market development in Nigeria from 1984 to 2020. The findings show a significant

impact of financial openness on stock market development. Also, financial depth has a positive impact on stock market performance while foreign private investment has a negative impact on stock market development.

These findings are relatable since many African nations, including Nigeria, lack strong and well-established institutions to control and prevent manipulations, corruption, and political meddling in financial markets, it is clear that Nigeria must reach a certain level of development before they can fully enjoy the benefits of financial openness. This research claims that relevant authorities in African countries consciously work to eliminate any existing institutional systemic vulnerabilities that permit illicit behaviour in financial markets. This will ensure that institutional environments (political, legal, regulatory, and economic) resist any potential risks and unfavourable consequences of financial transparency.

Financial system liberalisation and stock market growth are strongly impacted by financial openness. That might, however, result in more volatility, therefore governments have to think about lowering these risks. Financial openness may also help nations integrate financially, but governments should carefully consider the advantages and disadvantages. Furthermore, it may have a substantial influence on the local financial system, thus measures that promote financial transparency need to be carefully considered. Encouraging economic development and lowering susceptibility to outside shocks need to be the objectives.

As a result, the result presents the following policy recommendations. First, greater foreign participation in the Nigerian stock market is required to support foreign portfolio investment, which might be achieved through greater openness. Secondly, policymakers should implement welcoming investment policies to attract foreign participation. Lastly, inflation difficulties should be addressed correctly, as evidenced by the impact on Nigeria's stock market development.

### **Authors' Contributory Statement**

Okere Wisdom conceived the research, developed the initial literature review and Layinka Abiodun Richards generated the final draft. Olowo Samson contributed to the literature review. Adebite Dorcas and Ogungbe Oludayo Olusola contributed to developing the methodology.

## References

- Adegbeye, A. C., & Ikponmwosa, N. (2013). Financial openness and capital market development: Empirical review of selected West African countries. *Journal of Economics and Sustainable Development*, 4(16), 65–72. <https://www.iiste.org/Journals/index.php/JEDS/article/view/8465>
- Agyemang, O. S., Gatsi, J. G., & Ansong, A. (2018). Institutional structures and financial market development in Africa. *Cogent Economics and Finance*, 6(1). <https://doi.org/10.1080/23322039.2018.1488342>
- Aharon, D. Y., Ali, S., & Naved, M. (2023). Too big to fail: The aftermath of Silicon Valley Bank (SVB) collapse and its impact on financial markets. *Research in International Business and Finance*, 66, 102036. <https://doi.org/10.1016/j.ribaf.2023.102036>
- Alajekwu, U. B., Ezeabasili V. N., & Nzotta S. M. (2013). Trade openness, stock market development and economic growth of Nigeria: Empirical evidence. *Research Journal of Finance and Accounting*, 4(3), 120–127. <https://www.iiste.org/Journals/index.php/RJFA/article/view/4969>
- Aman, Z., Granville, B., Mallick, S. K., & Nemlioglu, I. (2024). Does greater financial openness promote external competitiveness in emerging markets? The role of institutional quality. *International Journal of Finance & Economics*, 29(1), 486–510. <https://doi.org/10.1002/ijfe.2695>
- Araoye, F. E., Ajayi, E. O., & Aruwaji, A. M. (2018). The impact of stock market development on economic growth in Nigeria. *Journal of Business and African Economy*, 4(1), 1–15. <https://www.iiardjournals.org/get/JBAE/VOL.%204%20NO.%201%202018/THE%20IMPACT%20OF%20STOCK.pdf>
- Arikpo, O. F., & Ogar, A. (2018). Empirical examination of foreign direct investment and stock market performance in Nigeria. *International Journal of Economics and Financial Management*, 3(2), 68–92. <https://iiardjournals.org/get/IJEFM/VOL.%203%20NO.%202%202018/EMPIRICAL%20EXAMINATION.pdf>
- Atsin, A. J. L., & Ocran, M. K. (2013). Financial liberalization and the development of stock markets in sub-Saharan Africa. *MPRA Paper*, 87580. <https://mpra.ub.uni-muenchen.de/87580/>
- Awiagah, R., & Choi, S. B. (2018). Stock market development in Ghana: Whither trade openness. *International Journal of Trade, Economics and Finance*, 9(4), 135–141. <https://doi.org/10.18178/ijtef.2017.9.4.603>

- Baltagi, B., Demetriades, P., & Law, H. S. (2007). *Financial development, openness, and institutions: Evidence from panel data* [Conference presentation]. IMF Conference on New Perspectives on Financial Globalization, Washington, DC, United States. <https://www.imf.org/external/np/seminars/eng/2007/finglo/btpdsl.pdf>
- Barnor, C., & Wiafe, A. E. (2015). Financial sector openness and stock market development in Ghana. *Research Journal of Finance and Accounting*, 6(24), 80–87.
- Botta, A., Porcile, G., Spinola, D., & Yajima, G. T. (2023). Financial integration, productive development and fiscal policy space in developing countries. *Structural Change and Economic Dynamics*, 66, 175–188. <https://doi.org/10.1016/j.strueco.2023.04.016>
- Capraro, S., & Panico, C. (2021). Monetary policy in liberalized financial markets: The Mexican case. *Review of Keynesian Economics*, 9(1), 109–138. <http://doi.org/https://doi.org/10.7275/28197698>
- Omodero, C. O., & Ekwe, M. C. (2017). Impact of foreign direct investment (FDI) on the stock market performances in Nigeria (1985–2014). *Applied Finance and Accounting*, 3(1), 36–48. <http://doi.org/10.11114/afa.v3i1.1932>
- Destek, M. A., Sohag, K., Aydın, S., & Destek, G. (2023). Foreign direct investment, stock market capitalization, and sustainable development: relative impacts of domestic and foreign capital. *Environmental Science and Pollution Research*, 30(11), 28903–28915. <https://mp.ra.ub.uni-muenchen.de/117551/>
- Edo, S., & Kanwanye, H. (2022). Capital returns and currency value: The contrasting key drivers of foreign portfolio investments in Sub-Saharan African economies. *IIMB Management Review*, 34(2), 178–188. <https://doi.org/10.1016/j.iimb.2022.06.001>
- Egwuatu, P., & Nnorom, N. (2018, October 29). Top banks struggle to grow earnings, profitability. *Vanguard*. <https://www.vanguardngr.com/2018/10/top-banks-struggle-to-grow-earningsprofitability/>
- Gabriel, A. A., & David, A. O. (2021). Effect of trade openness and financial openness on economic growth in Sub-Saharan African countries. *African Journal of Economic Review*, 9(1), 109–130. <https://www.ajol.info/index.php/ajer/article/view/201730>
- Hakim, D. R., & Budi, S. (2024). Governance and economic growth: The mediating role of FDI inflows. *Institutions and Economics*, 1–25. <https://>

- doi.org/10.22452/IJIE.vol16no3.1
- Ho, S., & Odhiambo, N. M. (2018). Analyzing the macroeconomic drivers of stock market. *Cogent Economics and Finance*, 6(1). <https://doi.org/10.1080/23322039.2018.1451265>
- Hu, Y., Hao, Y., & Raza, A. (2023). Association between the stock market and green economic growth: Green recovery from BRICS economies. *Economic Change and Restructuring*, 56(6), 3861–3884. <https://doi.org/10.1007/s10644-022-09423-2>
- Jabeen, G., Ahmad, M., & Zhang, Q. (2023). Combined role of economic openness, financial deepening, biological capacity, and human capital in achieving ecological sustainability. *Ecological Informatics*, 73, 101932. <https://doi.org/10.1016/j.ecoinf.2022.101932>
- Khatun, R., & Bist, J. P. (2019). Financial development, openness in financial services trade and economic growth: A panel data analysis in BRICS economies. *International Trade, Politics and Development*, 3(2), 42–65. <https://doi.org/10.1108/ITPD-05-2019-0002>
- Mbona, N. (2022). Impacts of overall financial development, access and depth on income inequality. *Economies*, 10(5), 118. <https://doi.org/10.3390/economies10050118>
- McKinnon, R. I. (1973). *Money and capital in economic development*. Brookings Institution Press.
- Mohamed-Sghaier, I. (2023). Trade openness, financial development and economic growth in North African countries. *International Journal of Finance and Economics*, 28(2), 1729–1740. <https://doi.org/10.1002/ijfe.2503>
- Murdipi, R., Baharumshah, A. Z., & Law, S. H. (2023). Portfolio capital flows and economic growth: Do institutional factors matter? *Research in International Business and Finance*, 66, 102019. <https://doi.org/10.1016/j.ribaf.2023.102019>
- Naraya, S. S., Mohanty, A. D., & Malayaranjan, S. (2024). Health expenditure and economic growth nexus: Empirical evidence from South Asian countries. *Global Business Review*, 25(2), S229–S243. <https://doi.org/10.1177/0972150920963069>
- Obayagbona, O., & Igbinoia, E. L. (2021). Financial openness, foreign portfolio investment and stock market development in Nigeria. *Journal of Academic Research in Economics*, 13(1), 184–200. <https://www.ceeol.com/search/article-detail?id=983475>

- Ofoeda, I., Amoah, L., Anarfo, E. B., & Abor, J. Y. (2024). Financial inclusion and economic growth: What roles do institutions and financial regulation play? *International Journal of Finance and Economics*, 29(1), 832–848. <https://doi.org/10.1002/ijfe.2709>
- Odo, S. I., Igberu, C. O., Udude, C. C., & Chukwu, B. C. (2016). Public expenditure and economic growth in South Africa: Long run and causality approach. *Asian Journal of Economics, Business and Accounting*, 1(2), 1–17. <http://eprints.gouni.edu.ng/id/eprint/1593>
- Opperman, P., & Adjasi, C. K. D. (2019). Remittance volatility and financial sector development in sub-Saharan African countries. *Journal of Policy Modeling*, 41(2), 336–351. <https://doi.org/10.1016/j.jpolmod.2018.11.001>
- Park, Y. C. (2019). Liberalization in Korea and Taiwan. In A. Koves (ed.), *Foreign Economic Liberalization* (pp. 147–161). Routledge. <https://doi.org/10.4324/9780429046094>
- Petry, J., Koddenbrock, K., & Nölke, A. (2023). State capitalism and capital markets: Comparing securities exchanges in emerging markets. *Environment and Planning A: Economy and Space*, 55(1), 143–164. <https://doi.org/10.1177/0308518X211047599>
- Pradhan, R. P., Arvin, M. B., Nair, M., Bennett, S. E., & Bahmani, S. (2024). Some determinants and mechanics of economic growth in middle-income countries: The role of ICT infrastructure development, taxation and other macroeconomic variables. *Singapore Economic Review*, 69(01), 297–333. <https://doi.org/10.1142/S0217590820500563>
- Sahoo, M., & Sethi, N. (2023). An empirical insight into the financial globalization–growth nexus via trade openness: Evidence from select south Asian countries. *Global Business Review*, 24(2), 317–334. <https://doi.org/10.1177/0972150919893840>
- Shahbaz, M., Siddiqui, A., Ahmad, S., & Jiao, Z. (2023). Financial development as a new determinant of energy diversification: The role of natural capital and structural changes in Australia. *Energy Economics*, 126, 106926. <https://doi.org/10.1016/j.eneco.2023.106926>
- Schroeder, P., Anggraeni, K., & Weber, U. (2019). The relevance of circular economy practices to the sustainable development goals. *Journal of Industrial Ecology*, 23(1), 77–95. <https://doi.org/10.1111/jiec.12732>
- Wan, S., Zhu, D., Sun, J., & Xu, B. (2023). Does financial liberalization matter for domestic value added in exports? Evidence from China. *Applied Economics*, 32(7), 1–19. <https://doi.org/10.1080/09638199.2022.2155690>

- Yang, H., Shi, F., Wang, J., & Jing, Z. (2019). Investigating the relationship between financial liberalization and capital flow waves: A panel data analysis. *International Review of Economics & Finance*, 59, 120–136. <https://doi.org/10.1016/j.iref.2018.08.011>
- Yousuf, M. (2024). The impact of financial repression on the economy of Bangladesh. *Finance and Economics Review*, 6(1), 13–25. <https://doi.org/10.38157/fer.v6i1.606>
- Yu, Y., & Qayyum, M. (2023). Impacts of financial openness on economic complexity: Cross-country evidence. *International Journal of Finance and Economics*, 28(2), 1514–1526. <https://doi.org/10.1002/ijfe.2491>
- Zheng, M., Feng, G. F., Wang, Q. J., & Chang, C. P. (2023). Financial globalization and technological innovation: International evidence. *Economic Systems*, 47(1), 101048. <https://doi.org/10.1016/j.ecosys.2022.101048>