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Financial Market Frictions and Stock Market Performance in Nigeria

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ABSTRACT: The study empirically investigated the impact of financial market frictions on stock market performance in Nigeria over the period 1995 to 2023. The specific objectives of the study were to find out how financial market frictions variables such as transaction cost (TCOST), capital gain tax (CGT), company income tax (CIT), liquidity rate (LIQ) and inflation rate (INFR) affect stock market performance. The autoregressive distributed lags (ARDL) technique was employed for the analysis of data and the results obtained revealed that in the short run, liquidity rate (LIQ) and previous values of total volume of trade has significant positive impact on stock market performance than the current value; while transaction cost (TCOST) and company income tax (CIT) do not significantly influence stock market performance in Nigeria. However, in the long run, transaction cost (TCOST) is the only financial market friction variable that significantly and positively affects stock market performance in Nigeria, while the other variables do not. The study recommends that, market regulators should strengthen current policy regarding trading in the Nigerian stock market; and frequent trading in the presence of transaction costs should be encouraged because, it substantially changes heterogeneity in demands across investors, resulting in a significant liquidity premium. This further justifies the importance of trading fees in asset pricing.

Keyword: Financial Market Frictions, Stock Market Performance, Total Volume of Trade, Liquidity rate.

1. INTRODUCTION

A vital part of Nigeria's economy, the capital market allows companies to get funding for expansion and investment. The role of stock market development has assumed a developmental function in nation's economy at both local and international levels. Stock market performance is determined by multiplicity of factors ranging from economic, company, industry and political related factors .Hence fundamental and technical factors summed up plays major role in stock market

performances. But there are also a number of frictions that have been plaguing the market and making it less efficient. Financial market frictions are a big cause for alarm. Any element that makes it harder for financial markets to function smoothly is called a financial market friction. Information asymmetry, liquidity restrictions, and transaction costs are just a few of the many potential causes of these frictions. Reasons given for these disagreements in the Nigerian setting include insufficient investor education, lax regulatory supervision, and poor institutional structures. All of them bring up points that have an impact on market trading and make it more difficult. Investors face what are known as "market frictions" when they buy securities without first considering not just the cash flows that the security will pay out indefinitely but also whether or not they will be able to resell the asset in the future.

Financial Market Frictions are any factors that impede transactions or markets within the framework of a capital asset pricing model (CAPM). Two things make up this interference. To begin, issues in the financial markets provide investors and participants with obvious reasons to pull their money out of the market, along with other real assets like the investor's time, property, human capital, and so on (Onyesonmazun, 2020: Ogbeide & Osamwonyi, 2021; Nduka, Anochie & Egungwu, 2024). Because of this, the client's level of risk might go up or down (Ogbeide & Osamwonyi, 2021). Second, when financial market frictions are present, they create costs that prevent rational investors from making or trying to make trades (Cerra & Saxena, 2008). Frictions in the financial markets may take many forms and impact almost every transaction. For instance, onyesonmazu (2020) notes that capital gain taxes impact bond and stock transaction choices made by both individuals and businesses.

Costs associated with financial market friction don't have to be monetary. To counteract the well-known incentives for agents to skimp and to sidestep regulations that impose tax penalties for "non-performance-based compensation," companies include stock options into their compensation packages. However, investors are unable to alter their holdings in a financial market characterized by frictions. By rebalancing to a hold portfolio, an investor who is currently holding a sub-optimal portfolio—maybe due to an illness, inheritance, change in work, or marital status—could reduce her risk without compromising her projected return. Instead of paying for trade, rebalancing is a worse mix of risk and anticipated reward. Think about a

stock investor who would rather have half bonds and half stocks. The investor's portfolio becomes overly skewed toward equities if bond prices remain flat, which increases the portfolio's risk. To restore the fifty mixtures, however, selling some of the stocks would need paying capital gains taxes.

Because it creates costs that might impact trading activity, Financial Market Frictions forces market participants to accept excessive risk. Markets and economies encounter frictions when they encounter obstacles that limit their efficiency (Adler, 2014). Rules, limited resources, unequal knowledge, and high transaction costs are only a few examples of the many obstacles. The research also identifies financing illiquidity, market illiquidity, and trade structure as variants of financial market frictions .An article published in 2019 by Park.

The structure of a market is its make-up as it relates to things like opening and closing times, market type, price discovery, and order forms. Since market liquidity is derived from buy and sell offers and illiquidity is represented by transaction costs that may lead to losses, DeGennaro and Robotti (2007) claim that market structure is a factor in financial market frictions, particularly transaction costs. The wide disparity between the bid and offer prices contributes to the high transaction cost in an illiquid market. According to Bekaert, Harvey, and Lundblad (2007), market illiquidity confirms the existence of frictions in trading operations, which play a significant role in asset pricing. According to Adler (2014), investors must evaluate the effects of stock market liquidity as a friction on asset pricing, even if there is no consensus on the optimal metric for this metric. According to many sources, including Degennaro and Robotti (2007), Abdul and Noshaba (2018), Mahoney and Qian (2013), Onyesonmazun (2020), Juliana (2020), Aniefor, Nduka, Ananwude & Ezeaku (2021), financial market frictions play a substantial role in the Nigerian capital markets. Few studies have examined the impact of financial market frictions on the stock markets, leaving market participants uncertain about the level of risk they face. As far as the researcher is aware, no research has looked at how financial market frictions affect Nigeria's stock market performance. The present research also differs from its predecessors in that it used the stockbrokers' commission as a stand-in for transaction cost. For that reason, we hope that our research will help to fill these blanks. The primary goal of this research is to analyze how financial market friction affects the performance of the Nigerian stock market. Here are the particular goals:

(i). investigate the impact of transaction cost on stock market performance in Nigeria

(ii). examine the impact of capital gain tax on stock market performance in Nigeria

(iii). ascertain the impact of company income tax on stock market performance in Nigeria

(iv). examine the impact of liquidity rate on stock market performance in Nigeria

2. LITERATURE REVIEW

Conceptual Review

Stock Market Performance

The stock market provides equity and direct form of finance to potential investors for economic purposes.This role enables it to function as a long term lubricant in the economic growth process. Hence a better functioning of the market is a boost for economic growth by shifting society's saving into higher return investment for short, medium and long term investment prospect. Stock market performance is defined as the relative stock performance of the stock measured as firstly, the price earnings ratio of the stock divided by the price earnings ratio of the stock exchange. And then secondly comparing the simple average of the price earnings ratios of those companies with peer group of companies determined by the committee at time performance goal are set for the performance period, divided by price earnings ratio of the stock exchange that is the Nigeria Exchange limited.

Financial market friction is defined as any factor that hinders trading within the framework of the capital asset pricing model (CAPM) (Degennaro & Robotti, 2007).According to Stoll (1993), the characteristics that determine how difficult it is to trade a financial asset in the financial market are known as financial market frictions or defects. Time and cost of transaction are two of the considerations that the author mentions. As they inevitably impact the majority of transactions, taxes and transaction costs are typical instances of market frictions (Keynes, 1936; Summers & Summers, 1989; Wurgler, 2000). Nevertheless, as pointed out by Lippman and McCall (1986), any factor that impacts the time required to complete a transaction involving a certain quantity of an item at its best price might be considered a friction. Bear in mind that the majority of assets might be sold off at a steep discount.

Transaction costs, asset indivisibility, non-traded assets, agency, and information difficulties are all categorized as financial market frictions in the influential work of De

Gennard and Robotti (2007). Cost of trade and opportunity cost of time are two additional components of transaction costs that the research breaks down. Transaction costs include comparable out-of-pocket expenses such as phone calls, mailing, computer time, data analysis, internet service, and membership fees.

Market imperfections, which Poyry (2014) describes as characteristics of markets that run counter to the fundamental assumptions of efficient market theories, are thought of as being analogous to frictions.

2.1 Classification of Financial Market Frictions

Since there is no one highly accurate structure, some frictions in the financial markets may fit into more than one group. Transaction costs, inflation, unemployment, taxes, regulations, nontrade assets, interest rate spread, asset indivisibility, agency and information difficulties, and financial market frictions are only a few examples of the various types of financial market frictions. Therefore, the economic processes that underpin frictions in the financial markets form the basis of this research.

Taxes/Regulations Costs

Both the apparent and hidden costs of taxes and regulations exist. There is no ambiguity about the corporate income tax; both the tax legislation and the money sent by corporations to the government identify it as a tax. Implicit taxes also exist, for example, insured banks must satisfy capital requirements (Park, 2019). There is no mention of taxes in the act that authorizes the capital requirements, and the government is not relieved of its duty by receiving monies from the banks. Still, these mandates function similarly to taxes in that they drive up the cost of conducting business. Laws enacted by legislatures and regulations enforced by executive branches and private businesses both contribute to the overall cost of regulations.

Transactions Costs

Postage, phone calls, computing power, and other comparable actual resource expenses associated with financial market transactions have been going down as technology has advanced. The actual expenditures may have increased at some points in time, but the expenses of data analysis and transmission have decreased. The cost of sending and receiving an email, for instance, is almost nothing. Additionally, almost all other trade-related mechanical expenditures have

decreased in price. So far, this tendency shows no signs of abating.

Asset indivisibility: Because some assets cannot be split into pieces small enough for every investor to acquire one, the financial market arises from this indivisibility. Therefore, investors should not attempt to buy such an asset, even if doing so would be an ideal investment plan, due to the latter's indivisibility. Financial market products like mutual funds help to reduce wealth inequality and asset indivisibility (DeGennaro & Sangphill, 1986).

Non-traded Assets: Any asset that is either not readily exchanged or cannot be traded at all is considered a non-traded asset. An individual cannot, for instance, profit from the sale of their "human capital" after spending tens of thousands of naira on school and training. But what may and cannot be exchanged is always growing due to innovation in the financial markets. The creative problem-solving of financial institutions and their staff in dealing with the difficulties of non-traded assets is shown by the meteoric rise of securitization, in which investors participate in the income streams generated by mortgages or credit card bills.

Inflation Rate: High inflation rates are believed to have negative effects on aggregate economic performance and the provision and allocation of investment capital. This interference has a negative impact on long-run capital formation and real activity. Additionally, high inflation rates are often accompanied by highly variable inflation and variability in rates of return to saving on various financial instruments. High rates of inflation worsen various financial market frictions, which in turn has negative effects on aggregate economic performance and the financial sector.

Agency and Information Problems

The first article in this field was written by Jensen and Meckling (1976), but Adam Smith had refined the notion since 1776. Smith makes the valid point that company directors cannot be expected to be as careful with other people's money as they would be with their own. So, why does the division of ownership and control cause friction in the financial markets?

One reason is that financial contracts can't manage incentive problems—which might arise from this separation—for free. Since no one is willing to pay the musician what their

revenue stream is really worth, this problem may make human capital asset trade difficult, if not impossible.

Earnings management and fraud have been known to cause the departure of company leaders and even criminal charges, thus this issue is not new at the corporate level. In 2010, Jith and Donald came to the conclusion that information frictions impact several aspects of business performance.

2.2 Theoretical Literature

Agency theory- Conflicts and agency costs are the two main outcomes of an imperfect contract, according to agency theory. Nevertheless, conflicts of interest between managers and investors might lead to the agency issue. This may arise if the management isn't looking out for the shareholders' best interests.

According to proponents of the agency theory, (Jensen & Merkling,1976; Easterbrook, 1984; LaPortal, Lopez-de-Silanes, Shleifer & Vishny,2000), managers and shareholders possess an agency connection. Management and investors will always have competing interests. The reason for this is that whereas the former is focused on amassing wealth, the latter is more concerned with growing compensation.

The goal of management's efforts to reassure investors is to keep them from bickering. Managers' actions alter depending on whether they control the entire firm or only a portion of it (Jensen & Meckling, 1976).Managers risk behaving in a self-serving manner, prioritizing their own wealth above that of shareholders, when they do not have complete authority over a firm.

In their 1976 study, Jensen and Meckling used terms like "residual loss" to characterize the financial hit that agencies took. The spending costs needed to supervise the performance of their agents are known as agency cost. Managerial interests may diverge from those of the primary shareholders on occasion. To bring managers' and owners' interests into harmony and prevent the formation of an empire, initiatives such as the 13-month rule, profit sharing, and firing have been implemented.

Theory of Asymmetric information

Contrarily, according to the idea of asymmetric information, asset prices may diverge from their inherent or fundamental value due to information asymmetry, a kind of market friction (Hoguet, 2005; Li, 2008). The idea states that market actors, such as corporations or investors, might benefit from

having access to certain privileged knowledge, which allows them to generate abnormal returns on stocks by taking use of this rare resource.

2.3 Empirical Review

As shown by Mahoney and Qian (2013), the foundational elements of an organizational economics approach to strategic management include market frictions. Various organizational economic approaches—such as resource-based, real choices, property rights, and transaction costs—focus on various combinations of market frictions and have different focal concerns. There are three primary benefits to gaining a broader understanding of the function of market frictions. On the one hand, it aids in the detection of a changing paradigm in strategic management about market frictions. Second, it demonstrates how the three main strategic objectives of minimizing costs, creating value, and capturing that value may be better integrated and assessed, as well as how the two main questions of strategy, why do businesses exist and why do some organizations do better than others, can be answered. Third, new research topics and theory development in the area of strategic management might be generated by varied combinations of market frictions.

Using data from a sample of Pakistani businesses, Abdul and Noshaba (2018) investigated cash flow sensitivity to external funding and financial frictions. According to the findings, there is a substantial and negative correlation between external funding and cash flow. The pecking order hypothesis of capital structure has been bolstered by the discovery of the substitutionary link between internal funds availability and external funding. Financially restricted and unconstrained enterprises' choices to seek external funding are also examined in the research, with a focus on the effects of equity and credit multiplier. The findings demonstrate that the negative sensitivity of external funding grows with asset tangibility for enterprises without financial constraints. Nevertheless, as assets become more tangible, the negative sensitivity of external borrowing to cash flow either goes away or becomes positive for financially restricted enterprises. Because physical assets may both alleviate financial limitations and provide a direct source of funding during times of negative cash flow shocks, this result suggests that financially limited enterprises should prioritize investing in these assets. In order to examine the transmission of monetary policy on bank lending, Altermatty (2019) developed a general equilibrium model.

The research also examined financial frictions and internal money creation. Individual banks engage in bank lending when they encounter uncertain investment prospects via the creation of internal funds. There is a reserve requirement in place, and banks may participate in the interbank money market. Reducing the money market rate relative to inflation decreases investment and welfare, according to the model. The reason for this is because when banks encounter unfavorable investing possibilities, they have an alternative: the money market. When the money market rate is lowered, the value of this alternative falls, which makes banks less eager to obtain reserves in advance. The capacity of the banking sector to provide credit is diminished as a result of lower aggregate reserves.

Financial market frictions and trading on the Nigerian bourse were studied by Aigbovo & Omoruyi-Aigbovo (2022). The empirical results showed that in the long run, there is a positive and statistically significant relationship between the capital gain tax rate and trading activities in the Nigerian stock market. However, in the short run, there is a negative relationship between trading activities and transaction costs, capital gain tax, and dividend tax rate, but this relationship is not statistically significant. The regression model and multivariate ordinary least square econometric technique were used for this analysis.

In 2020, Onyesonmazun looked into the impact of financial market frictions on the capital market in Nigeria. The study covered a quarter of a century, from 1992 to 2017. Market capitalization was examined using independent variables such as value added tax, inflation rate, gross capital creation, total value of domestic shares traded, and foreign direct investment. The researcher used an ordinary least square estimation technique to find that, at the 0.05 significance level, there is a positive relationship between Nigerian market capitalization and gross capital formation (GCF), and a negative link between Nigerian market capitalization and foreign direct investments as a percentage of GDP. The federal government should establish up a platform for some players to help reduce delicate market frictions, according to the recommendation.

Juliana (2021) uncovered new and illuminating information that have emerged in the last several decades. It seems that the trend of macro market frictions is improving in tandem with the development of corporate diversity. Through internal capital reallocation across divisions, highly

diversified firms may alter the cost of bottleneck market frictions. The research, which spanned the years 2008–201, relied on secondary data collected from the IDX and the IBPA, the Indonesian Bond Pricing Agency. The analysis confirmed that Indonesian businesses with a diverse portfolio are better able to weather external market shocks.

A price formation model of market friction with time-varying volatility was suggested by Buccheri, Grassi, and Vocaleli (2021). In this model, the trading price changes when the value of information is enormous and may ensure excess profit in transaction costs. The study used transaction data to determine (a) the projected transaction costs and (b) the conditional volatility of the underlying asset once financial frictions were removed. According to their findings, the risk of illiquid securities was high after market frictions were corrected, which differed from what was indicated by classic volatility models. The projected transaction costs are closely correlated with the bid-ask spreads during periods of high volatility in the cycle.

Kaboski (2021) looked at the evolution of financial markets, macroeconomic growth, and financial frictions. Reviewing existing data and proposing important unanswered issues about policy and development, the research set out to analyze the aggregate and distributional consequences for emerging nations' macroeconomics.

Gap (s) in Literature

In contrast to earlier research, our empirical evaluation of the existing literature reveals a significant knowledge vacuum about the connection between financial market frictions and stock market performance. Earlier research does not cover up-to-date events. Moreover, in contrast to other research, this study included liquidity rate and company income tax.

3. METHODOLOGY

This study makes use of the widely-used Ex-Post-facto and longitudinal research designs in the social and management sciences. Since the independent variables have already taken place, the researcher is unable to change or alter them under this design. The Nigerian banking system serves as both the study's population and its sample size. In this respect, the census sampling method was used, according to which the population is equal to the sample size. The data used in this analysis are annual times series data covering the period 1995 to 2023).

They were sourced from the Nigerian Exchange Limited (NGX), Federal Inland Revenue and CBN statistical bulletin (2023)

This research is grounded on the Asymmetric information theory, which states that asset prices might differ from their inherent or fundamental value due to information asymmetry, a kind of market friction (Hoguet, 2005; Li, 2008). According to the hypothesis, market players, corporations, or investors who have access to certain privileged knowledge might use it to their advantage and generate abnormally high returns on stocks.

Model Specification

This study adapted the model of Aigbovo and Omoruyi-Aigbovo (2022) whose model is presented thus as;

TRAD=f(TRACOST,CGTAXR,DTAXR)

TRAD=Trading(proxy by total volume of stock traded)

TRACOST=Transaction cost

CGTAXR=Capital gain Tax

DTAXR=Dividend Tax Rate

Financial market frictions and the Nigerian stock market performance is thus represented functionally as:

TVT = F (CGT, TCOST, CIT, LIQ, INFR) …… (3.1)

The econometric form of the model estimated mass modified and specified in order to formulate regression equations.

$TVT_t = \alpha_0 + \alpha_1 TVT_t + \alpha_2 TCOST_t + \alpha_3 CGT_t + \alpha_4 CIT_t + \alpha_5 LIQ_t + \alpha_6 INFR_t + \mu$…….(3.2)

Where:

TVT = Total Volume of Trade

TCOST = Transaction Cost

CGT = Capital Gain Tax

CIT = Company Income Tax

LIQ = Liquidity Rate

INFR = Inflation Rate

μ is the error term.

Apriori Expectation is: $\alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5 < 0$

Method of Data Analysis

In order to simulate integration connections, this research used the Autoregressive Distributed Lags (ARDL) approach and the correlation coefficient. Pesaran and Shin's method is the foundation of the (ARDL) method for cointegration (1999). The main benefit of this method is that it may be used even if the sample variables are not stable. It also allows for conclusions on long run estimates that are not possible with other cointegration processes.

When compared to conventional cointegrating testing, the ARDL/Bounds Testing approach, created by Pesaran and Shin (1999), offers many benefits. In instance, the method really shines when the datasets are restricted in their degree of freedom. The particular country analysis is carried out using pooled ECM regression and parsimonious ECM estimate when all variables are integrated to order I(1) and a relationship of co-integration between variables is observed. A large amount of leeway is provided by the parsimonious ECM's ability to integrate short- and long-term characteristics into an efficient estimate. In this research, the ECM regression is chosen as the fixed and random effect model because it consistently estimates the intercept and slope coefficients, which is particularly useful for small samples with restricted groups (N). To conclude, the model is checked for serial correlation using the post-regression test of the Breusch-Godfrey serial correlation test.

4. DATA ANALYSIS AND PRESENTATION OF RESULTS

Following on from the previous part, this one details the data analysis and interpretation that was done utilizing the ARDL technique of analysis. Starting with the bound test for cointegration and the correlation coefficient to determine the data set's background characteristics, we go on to post testing utilizing the Breusch-Godfrey Serial Correlation LM Test and the normalcy test, respectively.

4.1 Correlation Analysis

We provide the ordinary correlations matrix to investigate the underlying behavioral patterns in the dataset for Nigerian stock

market performance and financial market friction. According to table 4.1's correlation matrix, there is a weak positive correlation of 0.12327, 0.22089, and 0.02217 between total volume of trade (TVT) and transaction cost (TCOST), company income tax (CIT), and capital gain tax (CGT). There is also a weak inverse correlation of -0.32370 between TVT and inflation rate (INFR), and a strong positive correlation of 0.57357 between TVT and liquidity rate (LIQ). In contrast, TCOST is somewhat positively correlated with liquidity rate (LIQ) and inflation rate (INFR) at 0.25066 and 0.03320, respectively, and moderately negatively correlated with corporation income tax (CIT) and capital gain tax (CGT) at -0.52138 and -0.46564, respectively. Although there is a strong positive association between CIT and capital gain tax (0.54486), the correlation between the other variables is typically modest. Based on the findings of the correlation matrix, it can be concluded that the model variables do not exhibit multicolinearity.

Table 4.1: Pairwise Correlation Matrix

	TVT	TCOST	CIT	CGT	LIQ	INFR
TVT	1					
TCOST	0.12327	1				
CIT	0.22089	-0.52138	1			
CGT	0.02217	-0.46564	0.54486	1		
LIQ	0.57357	0.25066	0.13974	0.00599	1	
INFR	-0.32370	0.03320	-0.08339	0.00776	-0.29078	1

Source: Author's Computation (2024)

4.2 Bound Test for Cointegration

Finding out if the variables are permanently linked is what the limits test is all about in the context of cointegration. Therefore, the null hypothesis in this boundaries test is that there is no levels link. Cointegration, or a long-run relationship, may be said to exist if the calculated F-statistic is more than the critical value for the upper limit I(1); on the other hand, no cointegration can be said to exist if it is less than the lower constraint I(0). At the 5% level of significance, the F-statistic value of 3.698967 surpasses the upper limit I (0) value of 3.12, as shown in Table 4.2. This leads us to believe that the models postulated variables are related to one another over the long term.

Table 4.2: Bounds Test for Cointegration Result

Test Statistic	Value	Significant	I(0)	I(1)
F-statistic	3.698967	10%	2.75	3.79
K	5	5%	3.12	4.25
		2.5%	3.49	4.67
		1%	3.93	5.23

Source: Author's Compilations (2024)

4.3 The ARDL Error Correction Regression Result (Short Run Result)

Table 4.3 takes into account the performance of the Nigerian stock market and uses an error correction model (ECM) to depict the short-term behavior of financial market friction. We apply the Autoregressive Distributed Lags (ARDL) method for the ECM. The R-Bar squared criterion was used to choose the parsimonious equation. A strong diagnostic result in the data is shown by an extremely high R-squared value of 0.68, which indicates that short-term changes in the explanatory variables, including the ECM, explain for over 68% of the systematic variation in stock market performance. Additionally, the R-squared value is rather good at 0.52.Individual variable results show that the current total volume of trade D (TVT (-1)) has a considerably unfavorable impact on the performance of the Nigerian stock market as compared to prior values. Transaction cost (TCOST) is irrelevant to stock market performance as it was not statistically significant at the 5% level. However, the market's historical performance has a significant impact on the Nigerian stock market's short-term performance. The underlying assumption here is that the stock market has historically performed worse than the value of the transaction cost. While the CIT coefficient did show a robust positive association with stock market performance when it was valued earlier, it is now clear that it does not even pass the 5% significant level. This indicates that when the value of company income tax is included, the Nigerian stock market performs better. On the flip side, the effectiveness of the Nigerian stock market is significantly influenced by the liquidity index coefficient (LIQ). Since market liquidity is a proxy for market friction, an increase in market friction is linked to a roughly 112080.4 percent improvement in stock market performance. Therefore, LIQ, a measure of financial market tension, is a factor that influences Nigeria's stock market in the near term. As shown by CointEq(-1)*,

the coefficient of the error correction (ECM) term has a legitimate negative sign and is statistically significant at the 1% level. This shows that even a temporary disruption may lead to the posited variables returning to their long-term equilibrium. The long-term adjustment to equilibrium is robust, as shown by the high value of the error correction term of -1.794784. In terms of the ECM term, the first year is responsible for over 79% of the long-run adjustment to equilibrium. The DW statistic value of 2.18 indicates that there is no autocorrelation problem with the model.

Table 4.3: ARDL ECM Results

ECM Regression			
Case 5: Unrestricted Constant and Unrestricted Trend			
Variables	Coefficient	T-Ratio	Prob.
D(TVT(-1))	0.706691	3.212588	0.0075**
D(TCOST)	18789.84	0.994547	0.3396
D(TCOST(-1))	-48334.51	-2.755191	0.0174*
D(CIT)	-772.4750	-1.468064	0.1678
D(CIT(-1))	1376.483	2.539302	0.0260*
D(LIQ)	112080.4	3.633845	0.0034**
D(LIQ(-1))	93965.97	3.410274	0.0052**
Constant	-9312670.	0.000000	0.0000
@TREND	320422.4	5.146124	0.0002
CointEq(-1)*	-1.794784	-5.607247	0.0001
$R^2 = 0.68$	$\bar{R}^2 = 0.52$		D.W.= 2.18

Source: Author's computations (2024). Note: ** sig at 1% level.

4.5 ARDL Long Run Results

Based on the results of the limits test for cointegration in Table 4.2, we may conclude that there is a long run connection among the variables. Consequently, we perform the ARDL long run test. Table 4.4 shows that TCOST is the only financial market friction variable that has a long-term meaningful impact on Nigeria's stock market performance. It was statistically significant at the 1% level, which means that total stock market performance increases by around 69268.40 percent when transaction costs grow over the long term. A number of studies have shown that transaction costs have a positive and substantial impact on stock market performance; they include Mahoney and Qian (2013), Abdul and Noshaba (2018), Buccheri, Grassi and Vocaleli (2021), and Kaboski (2021). On the other hand, it went counter to the findings of Altermatty (2019) and Onyesonmazun (2020), who both discovered that transaction costs lower stock market performance.However, the other predicted financial market friction variables—capital gain tax (CGT), company income tax (CIT), liquidity rate (LIQ), and inflation rate (INFR)—did not meet the 5% significance levels, so they do not contribute to the final outcome of Nigeria's stock market.

Table 4.4: ARDL Long Run Result

Levels Equation			
Case 5: Unrestricted Constant and Unrestricted Trend			
Variables	Coefficient	T-Ratio	Prob.
TCOST	69268.40	3.491952	0.0044**
CIT	-1413.794	-2.050107	0.0629
CGT	6629.209	1.389497	0.1899
LIQ	24414.41	0.948240	0.3617
INFR	-25112.91	-1.221140	0.2455

Source: Author's Computations (2024). Note: ** sig at 1% level.

4.4 Breusch-Godfrey Serial Correlation LM Test

To determine whether the residuals of the model are serially correlated in the estimate, we used the Breusch-Godfrey Serial Correlation LM Test, as seen in Table 4.4 below. Since we cannot reject the null hypothesis due to the F-Statistic p-value of 0.5631, which says that the residuals are serially uncorrelated, the result demonstrates that they are not.

Table 4.4: Breusch-Godfrey Serial Correlation LM Test

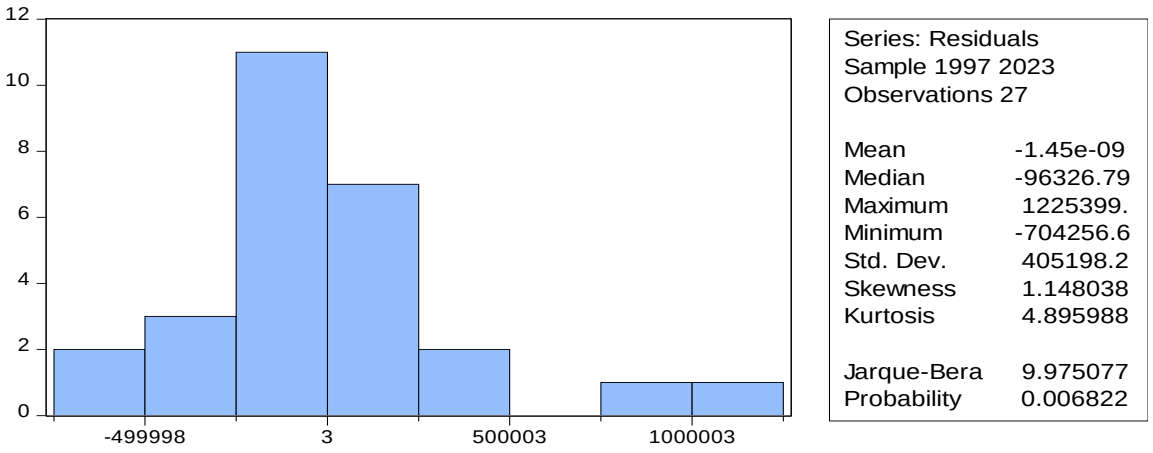
F-statistic	0.355560	Prob. F(1,11)	0.5631
Obs*R-squared	0.845412	Prob. Chi-Square(1)	0.3579

Source: Author's Compilation (2024)

4.5 Normality Test

The histogram normality test (HNT) was used to ensure that the data was normal. Assuming normality of the residuals is the null hypothesis and non-normality the alternative, the test asserts that this is the case. Based on the results of the Jarque-Bera statistics, we may conclude that the residuals are normally distributed if the probability value is larger than 0.05 (5%). Conversely, if the probability value is less than 0.05 (5%), we can reject the null hypothesis. Figure 4.1's Jarque-Bera statistics have a probability value of 0.006822, which is more than 0.05 (5%), suggesting that the data sets do not adhere to a normal distribution.

Figure 4.1: Histogram Normality Test



Source: Author Computation from Eview 10 output 2024

Discussion of findings

The results reveals that in the long run transaction cost is the only variable that had a significant positive impact on stock market performance in Nigeria which contradict the findings of Aigbovo and Aigbovo 2022 who found that transaction cost in the short run had a negative significant impact on trading activities in the Nigeria stock exchange**.**

5. CONCLUSION

There is little doubt that financial market friction has a significant influence on stock market performance, as does any factor that hinders the smooth operation of these markets. There are several possible sources of these frictions, including information asymmetry, liquidity constraints, and transaction costs. Thus, the purpose of this study was to ascertain the effect of frictions on the performance of the Nigerian stock market using annual time series data spanning 1995–2023. Based on the results of the Autoregressive Distributed Lags (ARDL) analysis, the following variables had a positive impact on stock market performance in Nigeria: liquidity rate (LIQ), total volume of trade values (both historical and present), and transaction cost (TCOST). However, company income tax (CIT) and liquidity rate (LIQ) did not show any significant effect. One financial market friction component, transaction cost (TCOST), does have a positive impact on Nigeria's stock market performance over the long run, in contrast to the other determinants. As a result of the study's findings, market participants and investors in Nigeria's stock market should focus on three key financial market frictions indicators: transaction cost (TCOST), liquidity rate (LIQ), and historical values of total trading volume.

This study's finding that transaction cost is a major factor in stock market performance suggests that Nigerian market regulators should tighten their grip on trading. They should also promote more frequent trading despite transaction costs, since this changes investor demand heterogeneity and leads to a large liquidity premium. This provides more evidence that trading costs have a significant role in asset price. Finally, market authorities should make every effort to maintain market liquidity, since market friction might result from inadequate liquidity. However, investors benefit from increased liquidity since it

indicates strong firm performance, which in turn increases demand for the stock and makes it simpler to sell the shares on the market.

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YEAR	TVT	TCOST	CIT	CGT	LIQ	INFR
1995	49,564	63.7132	21.88	0.00	14.95	72.8355
1996	49,515	68.4142	23.1	0.00	12.8	29.26829
1997	78,089	66.8786	27.8	0.00	14.75	8.529874
1998	84,935	55.6862	33.3	0.00	18.02	9.996378
1999	123,509	61.104	46.2	0.00	19.69	6.618373
2000	256,523	58.2286	53.3	0.00	19.17	6.933292
2001	426,163	59.5554	69.4	0.19	26.86	18.87365
2002	451,850	58.5892	89.1	1.24	21.82	12.87658
2003	621,717	68.5463	114.8	0.25	23.01	14.03178
2004	973,526	70.4967	130.8	1.12	18.68	14.99803
2005	1,021,967	65.432	170.2	0.35	18.1	17.86349
2006	1,367,954	67.9611	246.7	1.22	20.47	8.225222
2007	2,615,020	61.7431	332.4	0.52	24.88	5.388008
2008	3,535,631	57.6891	420.6	0.43	33.05	11.58108
2009	1,739,365	81.3726	595.18	0.49	38.14	12.55496
2010	1,925,314	71.916	658.5	1.04	37.78	13.7202
2011	1,235,467	69.6583	654.45	9.3	22.98	10.84003
2012	1,147,626	61.8146	820.57	8.92	25.46	12.21778
2013	3,245,866	64.2031	963.45	19.66	18.27	8.475827
2014	2,248,939	62.4106	1,173.49	2.65	32.1	8.062486
2015	950,001	59.201	1,268.98	16.8	22.46	9.009387
2016	837,259	49.1772	933.54	99.4	24.22	15.67534
2017	879,067	50.9498	1,215.06	3.18	20.52	16.52354
2018	1,048,777	53.1093	1,340.33	12.59	22.85	12.09473
2019	875,711	51.0787	1,604.70	5.98	21.65	11.39679
2020	1,156,830	54.1282	1,275.45	3.52	20.92	13.24602
2021	1,060,017	52.0843	1,747.99	17.5	19.87	16.95285
2022	1,068,959	54.2517	2649.19	45.57	21.59	18.84719
2023	1,068,959	53.1352	2649.19	47.64	22.75	18.84719

Sources: The Nigerian Exchange Limited (NGX), Federal Inland Revenue and CBN Statistical Bulletin (2023)