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FISCAL POLICY AND STOCK PERFORMANCE AT THE NAIROBI SECURITIES EXCHANGE: A LONG-SHORT RUN APPROACH

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ABSTRACT

This study examines the influence of fiscal policy on stock market performance in Kenya using monthly time-series data spanning from January 2001 to December 2024. Specifically, the study links key fiscal variables (tax revenue and public debt) to movements in the Nairobi Securities Exchange 20 Share Index, which serves as a proxy for overall market performance. Anchored on Keynesian theory, the New Keynesian framework, and the Fiscal Theory of the Price Level (FTPL), the study employs a linear Autoregressive Distributed Lag (ARDL) model to capture both short-run and long-run dynamics between fiscal policy and stock market outcomes. The findings reveal that public debt and tax revenue exert a statistically significant influence on stock market performance in the long run, while both variables are insignificant in the short run, confirming that fiscal policy operates through gradual adjustment mechanisms rather than immediate effects. The results further show that government borrowing, when directed toward productive investments, can stimulate economic activity and enhance investor confidence, while effective revenue mobilization signals fiscal strength, improved public service delivery, and macroeconomic stability. These findings underscore that fiscal policy is a critical determinant of stock market performance in Kenya, particularly over extended periods. From a practical perspective, the study highlights the importance for financial managers, investors, and listed firms to adopt a long-term orientation when responding to fiscal policy changes, including closely monitoring government borrowing trends and integrating fiscal expectations into capital budgeting, risk management, and investment decisions. From a policy standpoint, the results emphasize the need for fiscal authorities to design and implement sustainable, transparent, and growth-oriented policies that foster investor confidence and support stable capital market development.

Keywords: *Fiscal Policy, Stock Market Performance, Tax Revenue, Public Debt, Nairobi Securities Exchange 20 Share Index*

1. Introduction

The stock market plays a central role in global economic systems by facilitating capital allocation, wealth creation, and investment opportunities. Globally, stock exchanges record significant trading volumes, with average daily turnover exceeding USD 200 billion, reflecting high liquidity and investor participation (World Federation of Exchanges, 2024). In Africa, stock markets are increasingly recognized as key drivers of economic transformation, supporting investment and economic growth despite challenges such as low liquidity and limited investor participation (African Securities Exchanges Association (ASEA), 2023; IMF, 2023). These markets continue to evolve through regulatory improvements, modernization, and regional integration, positioning them as critical components of emerging financial systems.

Within East Africa, the Nairobi Securities Exchange (NSE) stands out as the most active stock market, playing a vital role in mobilizing capital and supporting economic development. The NSE recorded an average daily turnover of approximately KES 700 million in 2023, largely driven by a few dominant blue-chip stocks (Capital Markets Authority, 2023) . Despite its importance, the NSE remains vulnerable to macroeconomic conditions, particularly fiscal imbalances such as government spending patterns, taxation policies, and public debt levels. These fiscal dynamics influence investor confidence, liquidity, and overall stock performance, making fiscal policy a key determinant of market behavior in Kenya's emerging economy.

Fiscal policy, which involves government expenditure and taxation decisions, plays a significant role in shaping stock market performance (Acquah-Sam, et al., 2025). From a Keynesian perspective, expansionary fiscal policy through increased public spending or tax reductions can stimulate aggregate demand, enhance corporate earnings, and ultimately drive stock prices upward (El Hassani & Jerry, 2026). Conversely, contractionary fiscal measures may dampen economic activity and reduce market performance (Schroeder, 2024). However, classical economic theory suggests that excessive government borrowing may crowd out private investment, thereby negatively affecting stock market performance. These contrasting theoretical perspectives highlight the complex and sometimes conflicting channels through which fiscal policy influences stock markets.

Empirical evidence supports the significant role of fiscal policy in influencing stock market outcomes. For instance, Cobbinah et al. (2024) found that government spending and tax revenue positively affected stock returns in the long run, indicating that fiscal expansion can enhance market performance. Similarly, Wang (2010b) established that government policies, including fiscal measures, significantly influence stock market development through both direct and indirect channels. These findings suggest that fiscal policy not only affects macroeconomic fundamentals but also directly shapes investor expectations and stock price movements. In the Kenyan context, fiscal factors such as rising public debt, budget deficits, and government expenditure patterns have increasingly become critical in explaining fluctuations in NSE performance.

Despite the recognized importance of fiscal policy, existing studies on stock market performance in Kenya have largely concentrated on economic growth indicators or specific sectors within the Nairobi Securities Exchange, rather than examining the direct and comprehensive influence of fiscal policy variables. Such approaches often rely on static or linear assumptions, thereby failing to capture the dynamic, lagged, and potentially asymmetric effects of fiscal actions on stock market performance. Consequently, these models provide limited insight into how changes in government expenditure, taxation, and public debt transmission mechanisms influence market behavior over time. In this regard, the application of the Linear Autoregressive Distributed Lag (ARDL) approach offers a more robust and appropriate framework, as it enables the analysis of both short-run and long-run relationships between fiscal policy variables and stock market performance while accommodating dynamic adjustments inherent in an emerging market context.

2. Theoretical Review

Fiscal policy plays a central role in shaping stock market performance through its influence on aggregate demand, corporate profitability, and investor expectations. According to Keynesian theory, originally developed by Keynes (1936), government expenditure and taxation policies directly affect income levels, consumption, and investment, thereby influencing firm earnings and equity valuations (Keynes, 2018). Expansionary fiscal actions such as increased public spending and tax reductions stimulate demand, enhance business revenues, and improve stock market returns, while contractionary policies may dampen market activity (Joel, 2021). The theory further emphasizes the importance of redistributive taxation, where progressive taxes and targeted transfers can boost consumption due to higher marginal propensity to consume among low-income households, ultimately supporting market growth (McDermott & Wescott, 1996; Kaldor, 1971). Empirical evidence supports these theoretical assertions. For instance, Wawire and Bosire (2023) find that government development expenditure positively affects the NSE performance, particularly under stable macroeconomic conditions. Similarly, Kiptoo et al. (2023) demonstrate that infrastructure-focused fiscal expansion significantly enhances stock returns, although with lagged effects, while Nyangena and Mburu (2024) show that tax relief and productive spending stimulate equity markets when inflation is controlled. These findings collectively affirm that fiscal policy is a key driver of stock market performance, although its effectiveness depends on prevailing economic conditions such as inflation and exchange rate stability.

However, recent theoretical and empirical advancements highlight that the relationship between fiscal policy and stock market performance is not purely linear but is mediated by expectations, fiscal sustainability, and macroeconomic credibility. The New Keynesian framework and the Fiscal Theory of the Price Level (FTPL) emphasize that investor behavior is forward-looking and highly sensitive to government fiscal discipline. Unsustainable fiscal paths characterized by persistent deficits and rising public debt—can elevate inflation expectations, increase risk premiums, and reduce equity valuations. In the Kenyan context, Kiptoo et al. (2023) provide evidence that weak fiscal credibility leads to declining stock returns and heightened market volatility, as investors react negatively to perceived fiscal instability. This underscores the importance of maintaining credible fiscal frameworks and aligning expenditure with sustainable revenue strategies. Furthermore, the presence of nonlinear and regime-dependent effects, as observed in empirical studies, suggests that the impact of fiscal policy varies across different economic conditions, necessitating the use of advanced econometric approaches such as the ARDL model.

3. Empirical Studies (Conceptual and Hypothesis Development)

Fiscal policy plays a significant role in shaping stock market performance across both global and domestic contexts. Empirical evidence indicates that expansionary fiscal measures, particularly government spending, positively influence equity markets. For example, López et al. (2024) demonstrate that large-scale fiscal stimulus in major economies such as the United

States and China generates positive spillover effects on global stock markets, especially in emerging economies. Similarly, Enang et al. (2024) find that increased public expenditure enhances stock market outcomes by stimulating economic activity and improving corporate earnings. These findings collectively highlight that well-targeted fiscal expansion can strengthen investor confidence and boost stock market performance.

Taxation is another critical fiscal policy tool with substantial implications for stock market performance. Studies consistently show that increases in taxes, particularly corporate and income taxes, negatively affect stock returns by reducing profitability and discouraging investment. Gunduz (2025) finds that higher taxes exert downward pressure on stock market returns and economic output, while Nwogo (2024) reports that company income tax and petroleum profit tax significantly reduce stock market performance in Nigeria. Conversely, efficient and predictable tax systems enhance investor confidence. Nyasende et al. (2023) show that timely tax refunds improve liquidity and stock performance in Kenya's banking sector, emphasizing the need for balanced and transparent tax policies.

Public debt and government borrowing also influence stock market performance, though their effects are mixed and depend on how the debt is managed. On one hand, studies such as Ochieng' (2022) indicate that well-managed external debt can positively affect stock market performance in the long run, particularly when directed toward productive investments. On the other hand, excessive debt accumulation can negatively impact markets by increasing interest rates and crowding out private investment. Wisniewski and Jackson (2021) find that rising debt-to-GDP ratios significantly reduce stock returns, while Onyekachi Onyele et al. (2020) show that government debt negatively affects stock market liquidity. These findings underscore the importance of sustainable borrowing practices

Furthermore, recent studies emphasize that the relationship between fiscal policy and stock market performance is dynamic and nonlinear. For instance, Lee et al. (2025) find that fiscal expansions positively affect stock returns in the short run, while contractions have negative effects, with no significant long-term impact. Similarly, Matar and Eneizan (2022) reveal that stock market responses to fiscal shocks are nonlinear and path-dependent, challenging traditional assumptions of market efficiency. These findings suggest that fiscal policy effects vary across different economic conditions and require advanced analytical approaches such as ARDL and nonlinear models to fully capture their complexity.

The literature confirms that fiscal policy significantly affects stock market performance through government spending, taxation, and public debt management. While expansionary spending and well-managed debt tend to enhance market performance, excessive taxation and unsustainable borrowing can undermine investor confidence and reduce returns. Thus, the study hypothesized;

H_1: There is significant effect of public debt on stock market performance in Kenya.
H_2: There is no significant effect of tax revenue on stock market performance in Kenya.

4. Research Methodology

The study adopted a positivist philosophy, which is appropriate for examining the relationship between fiscal policy and stock market performance through objective observation, measurable evidence, and statistical testing. This philosophy supports the use of quantitative time-series methods to establish whether changes in fiscal policy variables such as tax revenue, public expenditure, and public debt significantly influence the performance of the NSE. In emphasizing neutrality, empirical verification, and replicability, the positivist approach provided a suitable foundation for explaining the relationship between fiscal policy actions and stock performance in Kenya.

Research Design and Population

The study employed a quantitative explanatory research design based on monthly secondary The study adopted a quantitative explanatory research design utilizing monthly secondary time-series data spanning the period from January 2001 to December 2024. The target population comprised all 61 companies listed on the Nairobi Securities Exchange (NSE); however, the empirical analysis focused on the 20 firms included in the NSE 20 Share Index over the study period. These firms were purposively selected due to their high liquidity, large market capitalization, and active trading, which make the NSE 20 Share Index a credible and representative measure of overall stock market performance. This research design enabled the examination of both short-run and long-run effects of fiscal policy variables on stock market performance at the aggregate market level, rather than at the individual firm level, thereby providing broader macro-financial insights.

Data Sources and Measurement of Variables

The study relied on monthly secondary data collected from credible public institutions. Stock market performance was measured using the NSE 20 Share Index obtained from the Nairobi Securities Exchange, while fiscal policy data were sourced from the Kenya National Bureau of Statistics and the National Treasury. The key fiscal policy variables included tax revenue and public debt. Tax revenue was measured as the monthly collected tax revenue in Kenya shillings, and public debt as monthly government borrowing from both domestic and foreign sources. These variables were selected because they capture the main channels through which fiscal policy can affect investor confidence, liquidity, and equity price. These variables were transformed appropriately, including logarithmic transformations, to enhance econometric validity and interpretability.

Table 1: Variable Definition

Type	Variable	Transformation and Measure	Variable Description
Dependent variable	Equity Price	NSE20SI	Market capitalization weighted index of 20 companies. Measured by monthly volume weighted average price of the indices.
Independent Variables	Tax Revenue	Tax_Rev	Monthly collected tax revenue in Kenyan Shillings
	Public Debt	PuB_Deb	Measured by monthly government borrowing both domestic and foreign.

Data analysis

The study employed both descriptive and inferential statistical techniques to analyze the relationship between fiscal policy and stock market performance. Descriptive statistics, including mean, standard deviation, skewness, and kurtosis, were first computed to summarize the distributional properties of the key variables, namely the NSE 20 Share Index, tax revenue, public expenditure, and public debt. This was followed by pre-estimation diagnostic tests to ensure the suitability of the data for time-series modeling. Specifically, stationarity of the variables was tested using the Augmented Dickey-Fuller (ADF) and Phillips–Perron (PP) unit root tests to determine their order of integration. Lag length selection was conducted using the Akaike Information Criterion (AIC) and Schwarz Bayesian Criterion (SBIC), while structural break tests were performed using the Bai–Perron approach to account for possible regime shifts. Additional checks for multicollinearity were conducted using correlation matrices and variance inflation factors to ensure the reliability of the estimated coefficients. These procedures ensured that the dataset met the necessary econometric assumptions for valid ARDL estimation.

Model Specification (ARDL Model)

The study applied the Autoregressive Distributed Lag (ARDL) model, as developed by Pesaran and Shin (1998) and Pesaran et al. (2001), to examine both the short-run and long-run effects of fiscal policy on stock market performance. Before estimating the ARDL model, the study first carried out a series of pre-estimation diagnostic tests to confirm that the data were appropriate for analysis and to minimize the risk of misleading or spurious findings. Stationarity was examined using unit root tests, including the Dickey-Fuller, Augmented Dickey-Fuller, and Phillips–Perron tests, to determine whether the variables were stable over time or needed transformation before modeling. The null hypothesis in these tests was that the series contained a unit root. The Phillips–Perron test was particularly useful because it accounts for serial correlation and heteroskedasticity in the error terms. After this, the optimal lag length was selected using the Akaike Information Criterion and the Schwarz Bayesian Information Criterion, with the Akaike criterion being preferred because of its suitability for small sample sizes. The study also tested for possible structural breaks using the Bai–Perron approach in order to identify any significant shifts in the data over time that could affect the stability of the model. Lastly, multicollinearity among the explanatory variables was assessed using correlation matrices, variance inflation factors, and variance decomposition inflation factors. Where multicollinearity appeared problematic, variables were adjusted through orthogonalization to improve the accuracy, efficiency, and reliability of the final ARDL estimates.

The ARDL approach was preferred because it accommodates variables integrated of mixed orders, I (0) and I (1), and provides efficient and unbiased estimates even in small samples. The functional model specified stock market performance, measured by the NSE 20 Share Index, as a function of fiscal policy variables tax revenue and public debt. The ARDL model was estimated using an Unrestricted Error Correction Model (UECM), allowing for simultaneous estimation of short-run dynamics and long-run equilibrium relationships. The bounds' testing procedure was employed to determine the existence of cointegration among the variables, where rejection of the null hypothesis indicated a long-run relationship. Once cointegration was confirmed, the long-run coefficients were estimated, followed by the error correction model to capture the speed of adjustment toward equilibrium. This specification enabled the study to effectively capture how fiscal policy instruments transmit to stock market performance over time.

In view of the above advantages, the ARDL-UECM employed in the present study had the following form as expressed in Equation (1):

$$\Delta y_t = \beta_0 + \sum_{i=1}^{p} \delta_1 \Delta x_{t-1} + \sum_{i=0}^{q} \delta_2 \Delta y_{t-i} + \beta_1 \Delta y_{t-1} + \beta_2 \Delta x_{t-1} + \varepsilon_t \quad (1)$$

Where, y and x are dependent and independent variables respectively; Δ denotes a first difference operator; it represents natural logarithmic transformation; β_0 is an intercept and ε_t is a white noise error term.

The first step in the ARDL bounds testing approach is to estimate Equation (16) by ordinary least squares in order to test for existence of a long-run relationship among the variables by conducting an F-test for the joint significance of the coefficients of the lagged level variables, i.e., $H_0: \beta_1 = \beta_2 = 0$ against the alternative $H_1: \beta_1 \neq \beta_2 \neq 0$. Two sets of critical value bounds for the F-statistic are generated by (Pesaran et al., 2001a). If the computed F-statistic falls below the lower bound critical value, the null hypothesis of no-cointegration cannot be rejected. Contrary, if the computed F-statistic lies above the upper bound critical value; the null hypothesis is rejected, implying that there is a long-run cointegration relationship amongst the variables in the model. Nevertheless, if the calculated value falls within the bounds, inference is inconclusive.

In the second step, once cointegration is established, the conditional ARDL long-run model for can be estimated as:

$$y_t = \beta_0 + \sum_{i=1}^{p} \beta_1 \Delta y_{t-1} + \sum_{i=0}^{q} \beta_2 x_{t-i} + \varepsilon_t \quad (2)$$

Where all variables had been previously defined. This involved selecting the orders of the ARDL (p, q) model using the Schwarz Bayesian Criterion (SBC). In the third and final step, the short-run dynamic parameters were obtained by estimating an error correction model associated with the long-run estimates. This was specified as follows:

$$\Delta y_t = \beta_0 + \sum_{i=1}^{p} \delta_1 \Delta y_{t-i} + \sum_{i=0}^{q} \delta_2 \Delta x_{t-1} + \emptyset ECT_{T-1} + \varepsilon_t \quad (3)$$

Where, δ_1 and δ_2 are the short-run dynamic coefficients of the model's convergence to equilibrium and φ is the speed of adjustment parameter and ECT is the error correction term that is derived from the estimated equilibrium relationship of Equation (1).

To ensure the reliability and statistical adequacy of the estimated ARDL model, a series of diagnostic tests were conducted after estimation. These tests were essential for validating the assumptions underlying the regression model, particularly regarding residual behavior and structural stability. They included tests for serial correlation, heteroskedasticity, normality of residuals, and parameter stability, all of which were fundamental for credible inference in time-series econometrics (Pesaran et al., 2001b; Wooldridge, 2013).

5. Results and Discussion

Descriptive Statistics

The descriptive statistics in Table 1 indicate notable variability in both stock market performance and fiscal policy variables over the study period. The NSE 20 Share Index (NSE20SI) recorded a mean of 3,248.40 with a relatively high standard deviation of 1,237.14 and ranged from 1,043.38 to 5,774.27, suggesting substantial fluctuations in stock market performance. Public debt (PuB_Deb) exhibited significant dispersion, with a mean of 3.371 million and a standard deviation of 3.191, alongside a wide range from 0.597 to 11.240, reflecting considerable growth and volatility in government borrowing. Similarly, tax revenue (Tax_Rev) showed high variability, with a mean of 451 thousand and a standard deviation of 439, with values ranging between 10 and 2, indicating inconsistencies in revenue collection over time. Overall, the large standard deviations and wide ranges relative to the means across the variables highlight a volatile fiscal and financial environment, reinforcing the suitability of the ARDL model to capture both short-run dynamics and long-run relationships between fiscal policy and stock market performance.

Table 1: Descriptive Statistics

Variable	Mean	SD	Median	IQR	Min	Max
NSE20SI	3,248.40	1,237.14	3,218.50	2,117.54	1,043.38	5,774.27
PuB_Deb (millions)	3.371	3.191	1.788	4.488	0.597	11.240
Tax_Rev (Thousands)	451	439	289	547	10	2

Keywords: NSE20SI= market capitalization-weighted index of 20 Nairobi Securities Exchange companies based on volume-weighted average prices, PuB_Deb = total monthly government borrowing; Tax_Rev, total government monthly Tax Revenue;

Unit Root test

The unit root test results presented in Table 2 indicate mixed stationarity among the study variables, justifying the use of the ARDL model. At levels, the NSE 20 Share Index (NSE20SI) was found to be non-stationary, with ADF and PP p-values of 0.477 and 0.841, respectively, while public debt (PuB_Deb) also exhibited non-stationarity with p-values of 0.355 (ADF) and 0.836 (PP). In contrast, tax revenue (Tax_Rev) was stationary at levels, with both ADF and PP p-values of 0.010, indicating stability in its mean and variance over time. Upon first differencing, NSE20SI and PuB_Deb became stationary, with both variables recording ADF and PP p-values of 0.010, confirming that they are integrated of order one, I(1). Tax revenue remained stationary even after differencing, consistent with its classification as I(0). Overall, the results show that the variables exhibit a mixed order of integration, with NSE20SI and PuB_Deb being I(1) and Tax_Rev being I(0), thereby supporting the appropriateness of the ARDL approach, which accommodates such mixed integration and enables reliable estimation of both short-run and long-run relationships between fiscal policy and stock market performance.

Table 2: Unit Root Test

Variable	ADF_pvalue	PP_pvalue	ADF_Decision	PP_Decision
NSE20SI	0.477	0.841	Non-Stationary	Non-Stationary
PuB_Deb	0.355	0.836	Non-Stationary	Non-Stationary
Tax_Rev	0.010	0.010	Stationary	Stationary
DIFFERENCED (I(1))				
Variable	**ADF_pvalue**	**PP_pvalue**	**ADF_Decision**	**PP_Decision**
NSE20SI	0.010	0.010	Stationary	Stationary
PuB_Deb	0.010	0.010	Stationary	Stationary
Tax_Rev	0.010	0.010	Stationary	Stationary

Multicollinearity

The multicollinearity results presented in Table 3 indicate that most variables in the model do not exhibit serious collinearity issues, except in one specification. Public debt (ΔPuB_Deb) consistently recorded low VIF values of 1.175 across all combinations, while tax revenue (Tax_Rev) showed an acceptable VIF of 1.142 in Combination 2, suggesting minimal correlation among predictors and reliable coefficient estimation. However, in Combination 1, tax revenue exhibited an extremely high VIF of 98.506, indicating severe multicollinearity, likely due to its strong linear relationship with other fiscal variables such as public expenditure. This level of collinearity can distort regression estimates and reduce interpretability. Consequently, adjustments were made by excluding highly correlated variables, as reflected in Combination 3 where Tax_Rev was omitted, resulting in stable and acceptable VIF values. The findings confirm that after addressing the multicollinearity issue, the model satisfies the required assumptions, thereby supporting reliable estimation of the relationship between fiscal policy variables and stock market performance.

Table 3: Multicollinearity

Combination	ΔPuB_Deb	Tax_Rev
1	1.175	98.506
2	1.175	1.142
3	1.175	-

Correlation Analysis

The correlation results presented in Table 4 show weak linear relationships between fiscal policy variables and stock market performance. The NSE 20 Share Index (NSE20SI) exhibits a weak positive correlation with public debt (ΔPuB_Deb = 0.110), suggesting that increases in government borrowing are only slightly associated with improvements in stock market performance. In contrast, NSE20SI has a negligible negative correlation with tax revenue (Tax_Rev = −0.010), indicating virtually no linear relationship between taxation and stock market performance over the study period. Additionally, public debt and tax revenue are modestly positively correlated (0.180), implying that increases in government borrowing may be accompanied by higher tax revenue levels. Overall, the low magnitude of the correlation coefficients indicates the absence of strong linear associations among the variables, reinforcing the need for advanced econometric techniques such as the ARDL model to capture potential dynamic and long-run relationships between fiscal policy and stock market performance.

Table 4: Correlation matrix

	NSE20SI	ΔPuB_Deb	Tax_Rev
NSE20SI	1.000	0.110	-0.010
ΔPuB_Deb		1.000	0.180
Tax_Rev			1.000

Linear ARDL- Long-run and Short-run (hypothesis Testing)

The diagnostic results presented in Table 5 indicate a mixed but generally acceptable performance of the ARDL models, with notable differences between the long-run and short-run specifications. In the long-run model, the Breusch–Godfrey test confirms the presence of serial correlation ($F = 238.330$, $p < 0.001$), while the Breusch–Pagan test also indicates heteroskedasticity ($F = 65.900$, $p < 0.001$), suggesting that residuals are not independently and identically distributed. Additionally, the Jarque–Bera test rejects normality ($p = 0.001$), implying that residuals deviate from a normal distribution. However, the RESET test ($p = 0.057$) suggests that the functional form is reasonably specified, albeit borderline. Stability tests (CUSUM and OLS-based CUSUM) are significant ($p < 0.001$), indicating potential structural instability over time, which is consistent with the presence of structural breaks captured in the model. In contrast, the short-run model demonstrates stronger diagnostic performance: no serial correlation ($p = 0.921$), no heteroskedasticity ($p = 0.924$), and correct functional specification ($p = 0.999$). Although normality is still violated ($p < 0.001$), this is less concerning given large sample properties. Overall, while the long-run model shows some econometric concerns, the models remain usable, especially with robust estimation techniques and the inclusion of structural breaks.

The ARDL results reveal a clear distinction in explanatory power between the long-run and short-run models. The long-run model demonstrates moderate explanatory power, with an R-squared of 0.412 and adjusted R-squared of 0.403, indicating that approximately 40.3% of the variation in NSE20SI is explained by fiscal variables (public debt and tax revenue) and structural breaks. The overall model is statistically significant ($F = 45.44$, $p < 0.001$), confirming good model fitness and joint significance of predictors. Furthermore, the structural break test is significant ($F = 3.22$, $p < 0.001$), reinforcing that accounting for macroeconomic shocks improves model reliability. In contrast, the short-run model exhibits very low explanatory power, with an R-squared of 0.031 and adjusted R-squared of 0.008, meaning that only 0.8% of the variation in stock performance is explained in the short run. The model is also statistically insignificant ($F = 1.360$, $p = 0.240$), indicating weak short-run predictive capacity. These findings suggest that fiscal policy effects on stock market performance are predominantly long-term rather than immediate, aligning with economic theory that fiscal actions influence markets through gradual adjustments in expectations, investment, and macroeconomic stability.

The results provide strong evidence to fail to reject hypothesis (H_1) and conclude that public debt significantly influences stock market performance in Kenya. The positive and significant long-run coefficient ($\beta = 0.313$, $p < 0.001$) suggests that increased government borrowing supports stock market performance, likely through its role in financing development projects and stimulating economic activity. This finding aligns with Wawire and Bosire (2023), who reported that government expenditure financed through borrowing positively affects the Nairobi Securities Exchange by enhancing corporate performance and investor confidence. Similarly, Kiptoo et al. (2023) found that infrastructure-related public borrowing has a positive lagged effect on stock returns in Kenya. However, the insignificant short-run effect indicates that debt does not immediately influence stock prices, which is consistent with Nyangena and Mburu (2024), who argue that the impact of fiscal policy on financial markets is largely delayed. On the contrary, global evidence by Wisniewski and Jackson (2021) suggests that excessive debt can negatively affect stock markets due to increased risk premiums and fiscal sustainability concerns. This contrast implies that while moderate borrowing in Kenya may be growth-enhancing, excessive debt accumulation could eventually reverse these gains.

Therefore, the findings highlight the importance of prudent debt management in sustaining positive stock market performance.

The findings also lead to the acceptance of the hypothesis (H_2) confirming that tax revenue has a significant effect on stock market performance in Kenya. The positive and significant long-run coefficient (β = 0.067, p = 0.010) suggests that higher tax revenue supports stock market performance, possibly by enhancing government capacity to provide public goods, maintain macroeconomic stability, and reduce fiscal deficits. This finding is consistent with Wawire and Bosire (2023), who found that effective revenue mobilization contributes to improved investor confidence and market performance at the NSE. Similarly, Nyasende et al. (2023) observed that efficient tax systems and timely fiscal operations improve liquidity and stability in financial markets. However, this result contrasts with studies such as Nwogo (2024), which found that higher taxation negatively affects stock performance by reducing corporate profitability and discouraging investment. The absence of a significant short-run effect (p = 0.164) supports the argument by Kiptoo et al. (2023) that fiscal policy impacts are not immediate but unfold over time as investors adjust their expectations. Overall, the results suggest that in the Kenyan context, tax revenue may play a stabilizing role in the long run, although its impact depends on how efficiently it is utilized by the government.

Table 5: ARDL- Short and Long- run Results

Variable	Long Run Coefficient (p-value)	Short Run Coefficient (p-value)
(Intercept)	8.352 (<0.001***)	0.0033 (0.489)
L (Tax_Rev, 1)	0.067 (0.010**)	0.0058 (0.164)
L (PuB_Deb, 1)	0.313 (<0.001***)	-0.145 (0.435)
L (break3, 1)	-0.765 (<0.001***)	-0.030 (<0.001***)
L (break4, 1)	-0.540 (<0.001***)	-0.020 (0.029*)
L (ECT, 1)	-	-0.0264 (0.092†)
Model Fit		
Multiple R-squared	0.412	0.031
Adjusted R-squared	0.403	0.008
F-statistic	45.44 (<0.001***)	1.360 (0.240)
Structural Break Test (F-statistic)	3.22 (<0.001***)	-
Break Dates	2005-02-01, 2008-09-01, 2015-06-01, 2019-05-01	2005-02-01, 2008-09-01, 2015-06-01, 2019-05-01
Diagnostic Test		
Breusch–Godfrey (Serial Correlation)	238.330 (<0.001***)	0.010 (0.921)
Breusch–Pagan (Heteroscedasticity)	65.900 (<0.001***)	1.400 (0.924)
Jarque–Bera (Normality)	14.780 (0.001***)	176.410 (<0.001***)
RESET (Functional Form)	2.900 (0.057)	0.001 (0.999)
CUSUM Test (Recursive)	3.790 (<0.001***)	1.250 (0.088)†
CUSUM Test (OLS-based)	3.340 (<0.001***)	0.946 (0.051)†
Linear Hypothesis Test (Joint Significance), F-statistic	40.570 (<0.001***)	-
VIF Range	1.00–6.50	1.00–1.02

Source (field data, 2025)

6. Conclusions

The findings demonstrate that fiscal policy exerts a significant and predominantly long-run influence on stock market performance in Kenya under the linear ARDL framework. The results show that public debt has a positive and statistically significant long-run effect on NSE20SI, indicating that government borrowing, when directed toward productive investments, can stimulate economic activity and enhance investor confidence. Similarly, tax revenue exhibits a positive and significant long-run relationship with stock performance, suggesting that effective revenue mobilization may signal fiscal strength, improved public service delivery, and macroeconomic stability. However, both variables were insignificant in the short run, confirming that fiscal policy does not immediately influence stock market performance but operates through gradual adjustment mechanisms. Overall, the results confirm that fiscal policy affects the stock market through long-term channels rather than short-term fluctuations.

7. Managerial and Practice Implications

The results highlight the importance for financial managers, investors, and listed firms to adopt a long-term perspective when responding to fiscal policy developments. Since public debt significantly influences stock market performance in the long run, managers should closely monitor government borrowing trends and evaluate whether such borrowing supports economic growth or signals potential fiscal stress. The delayed impact of fiscal variables implies that firms should not rely on short-term market reactions but instead incorporate fiscal outlooks into strategic planning and forecasting. In addition, the significant role of tax revenue suggests that firms should proactively engage in tax planning and anticipate future fiscal adjustments, as these may affect profitability and investment decisions over time. Consequently, financial decision-makers should integrate fiscal policy expectations into capital budgeting, risk management, and long-term investment strategies.

8. Policy Implications

The findings underscore the need for policymakers to design fiscal policies that are sustainable, transparent, and growth-oriented. The positive long-run effect of public debt suggests that borrowing can support stock market performance when it is well-managed and directed toward productive sectors such as infrastructure and development projects. However, the absence of short-run effects indicates that policy benefits are not immediate, emphasizing the importance of consistency and long-term planning. Similarly, the positive influence of tax revenue highlights the importance of efficient and predictable tax systems that enhance government capacity without undermining private sector performance. Policymakers should therefore ensure that fiscal measures are communicated clearly and implemented gradually to maintain investor confidence. Additionally, the significance of structural breaks suggests that fiscal policy effectiveness varies across economic conditions, requiring adaptive and flexible policy frameworks that can respond to shocks and changing macroeconomic environments.

9. Theoretical Implications

The study contributes to fiscal policy theory by providing empirical support for Keynesian perspectives within a linear ARDL framework. The positive long-run effects of public debt and tax revenue on stock market performance align with Keynesian arguments that government intervention through borrowing and revenue mobilization can stimulate economic activity and support financial markets. However, the findings extend this theory by demonstrating that fiscal policy effects are largely time-dependent, with significant impacts observed only in the long run rather than the short run. This highlights the role of expectations, gradual adjustments, and macroeconomic stability in shaping market outcomes. Furthermore, the results support New Keynesian insights that emphasize the importance of policy credibility and consistency in influencing economic behavior. In showing that fiscal variables significantly affect stock performance over time, the study reinforces the relevance of coordinated and stable fiscal strategies in promoting sustainable market development in emerging economies like Kenya.

10. Further Studies

The current study, despite providing empirical evidence on the relationship between fiscal policy and stock market performance at the Nairobi Securities Exchange, has several limitations that open avenues for future research. First, the study was confined to a linear ARDL framework and did not incorporate nonlinear modeling techniques. This limits the ability to capture potential asymmetric or state-dependent effects of fiscal policy variables on stock performance. Future studies should consider employing nonlinear ARDL (NARDL) or other advanced econometric models to explore whether positive and negative changes in fiscal variables produce different effects on the stock market. Second, the study covered the period between 2001 and 2024, which, although extensive, may not fully capture structural shifts beyond this timeframe or account for more recent macroeconomic developments. Future research could extend the dataset to include more recent periods or conduct comparative studies across different time horizons to examine the stability of fiscal policy effects over time.

Additionally, the study considered inflation only as a moderating variable in a limited capacity, which may not fully capture its broader macroeconomic role in influencing the relationship between fiscal policy and stock market performance. Future studies should explore additional moderating and mediating variables such as interest rate volatility, political risk, financial market development, and investor sentiment to provide a more comprehensive understanding of the transmission mechanisms. Furthermore, the study focused exclusively on the NSE20 Share Index as a proxy for stock market performance, which may not fully represent the entire market. Future research could incorporate alternative market indicators such as market capitalization, sectoral indices, or firm-level data to enhance robustness. Expanding the scope to include cross-country comparisons within East Africa or other emerging markets would also provide valuable insights into how fiscal policy effects vary across different institutional and economic contexts.

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