

## STOCK MARKET PERFORMANCE AND ECONOMIC GROWTH IN KENYA

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### **Abstract**

*This study is set to determine stock market performance and economic growth in Kenya. The aim of this study is to ascertain how market capitalization, total value traded and All Share Index impact the performance of economic growth in Kenya. The data for this study was sourced from the Nairobi security exchange within the scope of the study, 1997-2021. The study adopts the fully modified ordinary least square (FMOLS) technique to analyze the data and preliminary test like descriptive statistics, correlation matrix, unit root test, and stationarity test were all conducted. The investigation's conclusions revealed that economic growth is positively impacted by market capitalization, while total value traded has negative impact or relationship with Real GDP and All Share Index negatively affects Real GDP in Kenya. The study recommend amongst others that financial regulators to adopt policy avenues to boost the interest of these investors who will be willing and able to invest their funds in the market to raise the level of business investments which will in turn drive economic activities and thus, speedy economic growth in the long run.*

**Keywords:** Market capitalization, All Share index, Business Investment, FMOLS.

### **1. Introduction**

The stock market remains the fulcrum on which major economies rotate all over the globe. The market for stocks continues to function in serving as a gauge for the expansion and performance of the main economies around the globe (Osifo & Abusomwan, 2023). According to Ali and Yap (2016), the country's stock market plays a significant role in increasing economic transactions. Private persons and the government sell stocks and bonds in this market to raise funds for finance ideas and innovations. The growth and performance of stock exchanges all over the world is mirrored with diverse capital market

metrics like all share index, market capitalization, value of transaction, volume of transaction, number of new issues, and others. When these metrics are in the rise, it reflects on how much products and services are worth in the country, by extension the growth of the economy.

The economic growth of Kenya is a function of her well-functioning stock market. According to CBK (2023), the GDP trend of Kenya from 2021-2023 has been 7.5%, 4.8% and 5.0% respectively, which has revealed both upward and backward progression. The capita per income of citizens plays vital role in

Osaze (2007), market capitalization is the combined value of the values of all equity securities that are listed on a stock exchange and is determined by the size of the issued and paid-up capital as well as the current market price of the quoted securities. According to Ogieva and Igbinosa (2023), market capitalization is the most crucial metric for gauging the health of the capital market. Increase in the market capitalization of a stock exchange always lead to improvement of a country's gross domestic product and by extension economic performance. Olson (2005) defines market capitalization as the price of a stock multiplied by the number of shares outstanding at any given time. For all companies listed on a given stock exchange, market capitalization is the sum of individual outstanding shares divided by their prices.

### **2.1.2 Concept of Total Value Trade**

The term "Total Value Traded" refers to the total monetary value of securities (such as stocks, bonds, or other financial instruments) that are bought and sold in a financial market or on a specific stock exchange over a particular time period, typically a trading day. It provides a measure of the overall level of trading activity in a market. Ogieva and Igbinosa (2023) submitted that total value of stocks traded refers to the overall value or amount of all transactions completed in the market during the period. This metric also serves as a major gauge in determining the size of the capital market and the economy at large. The total value of transactions traded on the stock market exchange divided by the gross domestic product is the value of a transaction. It calculates the organized

trading of firm equity as a percentage of national output and should reflect economic liquidity. The transaction's total value adds to the market capitalization ratio (Popoola et al., 2017).

### **2.1.3 Concept of All Share Index**

The All Share Index, often referred to as the "All-Share Index" or "ASI," is a stock market index that represents the performance of all the shares or stocks listed on a particular stock exchange. It is a broad-based index that provides a snapshot of the overall movement of the entire stock market or a specific segment of it. This is a simple way to assess the direction and magnitude of the stock market's movement. The All-Share Index is a set of statistical data that is calculated every year to track changes in the value of commodities and securities. The price of all or some market constituents is used to create the index, which is usually expressed as a percentage change from the base period. Indices are important indicators of an economy's or financial market's performance (Eneisik, Ogbonnaya, & Onuoha, 2021).

## **2.2 Theoretical Framework**

The Arbitrage Pricing Theory (APT) developed by Ross (1976) is the most suitable for this study. The theory is of the view that that returns on investment is determined by multiple factors. These factors include but not limited to exchange rate, gross domestic product, inflation rate, interest rate, price stability and others. The growth in the economy which can be a proxy for returns in the APT model is hinged on diverse factors of stock market performance. Economic growth in this study is the proxy for returns in the APT

countries stock market performance. The level of disposable income and savings of the nationals can stimulate investment in the stock market. Hence, the market capitalization, all share index, value of transaction and other metrics of stock market performance will shore up because of the robust growth in the economy.

Prior studies (Osamwonyi & Kasimu, 2013; Olweny & Kimani, 2010; Kocha & Iwedi, 2023; Imade, 2021; Tan & Shafi, 2021; Olanire, Oladunni & Omobosola, 2023) carried out in different countries used diverse methodologies to look into how stock market performance affects the growth of the economy, these methodologies include granger causality test, vector autoregressive, multiple linear regression, error correction model, autoregressive distributed lag and parsimonious error correction model. However, this study made use of fully modified ordinary least squares (FMOLS), which helps to take care of endogeneity problem in the specified model.

The paper is arranged accordingly into different sections, section 1 is introduction, followed by sections 2 and 3 which are literature review and methodology, sections 4 and 5 are discussions of findings and conclusion and recommendation respectively.

## **2. Literature Review**

### **2.1 Concept of Economic Growth**

There is no one all definition of the term economic growth. The definition of the term by diverse scholars all over the globe tend to converge, seeing economic growth as the increase in the production and

consumption of goods and services within an economy over a specific period of time. It is often measured by the increase in a country's Gross Domestic Product (GDP) or Gross National Product (GNP); that as well, as quantify the total value of commodities and services produced by a nation's population or within its borders. As stated by Roser (2021), economic growth is the rise in the amount and caliber of economic goods and offerings that a community generates. A country's capacity to generate goods and services over time increases with economic growth, as stated by Agu (2018). The system via which the prosperity of a nation increases over time is referred to. In an alternative interpretation, Ikikii and Nzomoi (2013) consider a nation's economic growth as a boost to that nation's overall economic prosperity, which results from higher-quality goods and services produced over a while, often a year. Todaro (1985), in conclusion, suggests that economic growth is a sustained increase in a country's ability to provide a growing variety of economic products to its citizens. The growth in the economy triggers diverse activities in the stock exchange, which affects market capitalization, value of transaction and all share index.

#### **2.1.1 Concept of Market Capitalization**

Market capitalization, often referred to as "market cap," is a financial term used to express the entire value of the remaining shares of stock held by a publicly listed corporation. It is computed by multiplying the number of outstanding shares by the current market price of one share of the company's stock. Market capitalization gives you an idea of how much a firm is valued on the stock market. According to

model, while market capitalization, all share index and total value of transaction are the plethora of factors that impact on returns.

### 2.3 Empirical Review

The study carried out in Nigeria by Itiveh and Okolie (2023) assessed capital market operations and economic growth. The study used market capitalization, total new issues and transaction value to proxy capital market operations and gross domestic product to capture economic growth. The scope of the study covered 1980–2021, using ordinary least squares (OLS) as method of data analysis, the study revealed that capital market operations proxies significantly impacted on Nigeria's economic growth. Again, Oluwaleye, Usman, and Adenipekun (2023), x-rayed the impact of capital market on the economy of Nigeria between 1986 – 2021, using Autoregressive distributed lag (ARDL) co-integration analysis, parsimonious error correction model, variance decomposition and other post-estimation tests. The metrics adopted for the capital market were total value of transaction, all share index and market capitalization. The study showed that market capitalization impact economic growth positively both in the long and short run. The study also revealed that All Share Index affects the economy positively but insignificantly in both the long and short run. Conclusively, total value of transaction exerts positively on the growth of Nigeria's economy. Omar et al., (2022) in their study carried in Pakistan's stock market development was found to be significantly positively impacted by economic growth and the development of the banking sector,

as well as cointegration among the variables between 1980 and 2019 when utilizing the autoregressive distribution lag (ARDL) bounds testing approach. Fapetu et al., (2021) using vector error correction model (VECM) to analyze capital market performance and macroeconomic dynamics in Nigeria within the scope of 1993 to 2020. The study revealed a positive influence of capital market performance on macroeconomic dynamics in Nigeria.

The effect of the capital market on economic growth in Nigeria was studied by Enoruwa, Ezuem, and Nwani (2019). Using the ordinary least square (OLS) approach, the study employed secondary data from 1985 to 2015. According to the study, there is a positive and significant correlation between Nigeria's economic growth and market capitalization, trade volume, trade value, and all share indexes. From 1985 to 2015, Offum and Ihuoma (2018) investigated the connection between Nigeria's industrial output and the outcomes of the capital market. The Granger causality technique was used in the study's data analysis. The results of this study showed that the market capitalization ratio and the total value of shares traded ratio had a causal unidirectional association with the performance of the sector.

Khetsi and Mongale (2015) in their study carried out in South Africa, assessing the impact of capital market on economic growth between 1971 to 2013. The study mirrored capital using market capitalization and value of transaction, then economic growth with gross domestic product (GDP) and used exchange rate as control variable. The method of data analysis adopted was

vector error correction model (VECM). The outcome showed that capital speculation and economic growth are positively correlated in South Africa. Applying a 20-year time series of data spanning 1990 to 2010, Jibril et al., (2015) examined the impact of the development of the Nigerian stock exchange market on economic growth. Ordinary least squares techniques were used as the analysis strategy. Value traded ratios and turnover ratios were employed as stand-ins for market liquidity and market size, respectively, whereas the stock market capitalization ratio was used as the latter. Market capitalization and the value traded proportion have been demonstrated to have a negative relationship with growth in the economy, however, the turnover ratio showed a large positive correlation with the same.

Ikikii and Nzomoi (2013) in their study of analysis of stock market development and economic growth in Kenya using market capitalization and trade volume as metric for stock market development and gross domestic product (GDP) as economic growth. Quarterly data from the year 2000 to mid 2011 was used to arrive at 46 observations and the method of data analysis adopted was vector autoregressive method (VAR). The findings of the study revealed that stock market development (market capitalization and volume of trade) positively impacted on economic growth Kenya. Again, Osamwonyi and Kasimu (2013) carried out a cross country study of Ghana, Kenya and Nigeria to assess stock

market and economic growth. The scope of the study spanned from 1989 to 2009 using granger causality as method of data analysis. The discoveries from the study include that there is no causal relationship between stock market development and economic growth in Ghana and Nigeria but there is bidirectional causal relationship between stock market development and economic growth in Kenya. The panel study of 63 countries carried out by Beck, Lundberg and Majnoni (2006), the scope of the study spanned from 1960 to 1997. The study found a positive correlation between capital market development (measured by a dummy variable computed to reflect if the market capitalization exceeds 13.5% of GDP and economic growth.

**3. Data and Methods**

This study adopted the longitudinal research design to investigate the relationship between the stock market performance and economic growth in Kenya between 1997 to 2021. This form of research design is suitable for this study owing to the fact that the researchers cannot manipulate the data because they are historic in nature. This is an empirical study, as a result, the information presented is built on secondary data. The secondary data needed for this study were sourced from the Central Bank of Kenya (CBK) statistical bulletins, Capital Markets Authority (CMA) Statistical Bulletins (2022), Tradingeconomics.com, and the World Bank Data Base (2022). The scope of this study is from 1997 to 2021.

The functions can be calibrated mathematically with the stock market activities as:  
 $GDP = f(MCAP, TVT, ASI) \dots \dots \dots (3.1)$

Econometrically the equation is represented as:

$$GDP = \beta_0 + \beta_1 MCAP + \beta_2 TVT + \beta_3 ASI + \epsilon_t \dots \dots \dots (3.2)$$

Where:

GDP = Gross Domestic Product of Kenya;

MC = Market Capitalization of the Stock Exchange

TVT = Total Value Traded

ALSI = All Share Index

$\beta_0$  = Constant term

$\beta_1, \beta_2, \beta_3$ , are the coefficient of the parameter estimate.

$\epsilon_t$  is the Error (stochastic) term that covers other independent variables not covered here.

*A priori* expectation of the model is:

Apriori expectations

( $X_1$ ) = Market capitalization; *a priori* expectation is positive

( $X_2$ ) = Total value traded; *a priori* expectation is positive

( $X_3$ ) = All share index; *a priori* expectation is positive

Hence, this is further shown here:  $\beta_1 > 0, \beta_2 > 0, \beta_3 > 0$

### 3.1 Measurement and Operationalization of Variables

Variables	Operational Definition	Measurement	Verables
Economic Growth	Economic growth is operationally defined as an increase in the production of goods services in Kenya over a specific period of time.	Real gross domestic product (GDP)	Dependent variable
Market Capitalization	This is operationally defined as the product of the stock price and the total number of outstanding shares in the Nairobi securities exchange.	MCAP as stated in the Nairobi securities exchange annual report	Independent variable
Total value traded	This is operationally defined as the total value of stock traded in the Nairobi securities exchange.	Sum of all shares traded on the Nairobi Stock Exchange as stated in its annual report	Independent variable
All share index	This is operationally defined as the number which shows the changing average value of the share prices of all companies listed on the Nairobi securities exchange, and which is used to measure how well the stock market is performing.	Weighted average market capitalization	Independent variable

Source: Author's computation, 2023

**4. Discussion of Findings**

**4.1 Descriptive Statistics**

Table 4.1 presents a summary of the statistics of every series used in this investigation, including the mean, median, minimum and maximum values, standard deviation, skewness and kurtosis, Jarque-Bera values, and their corresponding probability values. Each variable's mean essentially denotes the average of its corresponding trend, whilst the standard deviation shows how explosive the particular series under study is. Additionally, the Jarque-Bera statistic indicates whether the variable is regularly distributed, while the skewness and kurtosis indicators highlight the distribution's asymmetry and peakness.

Real Gross Domestic Product (US\$BN), market capitalization of listed domestic companies (US\$BN), Nairobi Securities Exchange 20 share index, and total value of stocks traded are taken from Table 4.1. (US\$BN) averaged 3485.24, 36.89, 10.18 and 0.46 respectively, while their standard deviations were reported as follows; Nairobi Securities Exchange 20 share index (1187.44), Real Gross Domestic Product

(US\$13.06BN), Market capitalization of listed domestic companies (US\$8.79BN) and Total value of stocks traded (US\$0.50BN), within the scope of the study.

Also, all the series utilised in the study (except Nairobi Securities Exchange 20 share index) were positively skewed (right-skewed), suggesting that they are distributed with a recurring large increases and small decreases. This suggest that these variables tend to increase more frequently than they decline from one year to another. In the same vein, total value of stocks traded had moderate kurtosis values suggestive of mesokurtic behaviour, which coincides with normal distribution, while Nairobi Securities Exchange 20 share index, real Gross Domestic Product, and Market capitalization of listed domestic companies were platykurtic (small kurtosis values) in their distributions, suggestive of the presence of small outliers in the distributions. The Jarque-Bera statistic reveals that, all the series utilised in the study were normally distributed during the period of assessment. Table 4.1 reports the descriptive statistics of the series below.

**Table 4.1: Descriptive statistics of the variables used in the study**

statistic	Nairobi Securities Exchange 20 Share Index NSE20	RGDP (US\$BN)	Market capitalization of listed domestic companies (US\$BN)	Total value of stocks traded (US\$BN)
<b>Mean</b>	3485.24	36.89	10.18	0.46
<b>Median</b>	3477.44	33.35	9.78	0.20
<b>Maximum</b>	5101.50	65.06	26.15	1.81
<b>Minimum</b>	1176.69	21.98	0.00	0.00



<b>Std. Dev.</b>	1187.44	13.06	8.79	0.50
<b>Skewness</b>	-0.27	0.73	0.46	0.96
<b>Kurtosis</b>	1.96	2.29	1.78	3.04
<b>Jarque-Bera</b>	1.31	2.97	2.62	4.18
<b>Probability</b>	0.52	0.23	0.27	0.12
<b>Observations</b>	23	27	27	27

Source: Authors' Computation (2023) Using E-views 12

#### 4.2 Analysis of the Pairwise Correlation Statistics

Correlation analysis shows the pairwise association among the variables used in the study. Primarily, the degree of association—whether strong or weak—as well as the direction—whether positive or negative—between two or more variables are examined using correlation analysis. Thus, the Pearson Correlation coefficient was as follows: espoused to explore the relationship among all the variables employed in this study. Ideally, the focus of the segment of the chapter is to present the correlation results with specific emphasis on the link between RGDP and the stock market fundamentals captured in the modelling framework of the study.

The correlation coefficient alternates ranging from -1 to 1, where +1 denotes an ideal positive correlation, -1 denotes an ideal negative correlation, and 0 denotes no link at all between the variables being examined. The correlation matrix is presented in Table 4.2. From the correlation result, real GDP maintained a weak positive correlation with Nairobi Securities Exchange 20 share index (0.38 or 38%), a strong positive relationship with market capitalization of listed domestic companies (0.93 or 93%) and a weak positive correlation with total value of stocks (0.27 or 27%) in the period of assessments. The results are reported in Table 4.2 below.

**Table 4.2: Correlation Statistics of all Variables Employed**

	<b>Nairobi Securities Exchange 20 Share Index NSE20</b>	<b>RGDP (US\$BN)</b>	<b>Market capitalization of listed domestic companies (US\$BN)</b>	<b>Total value of stocks traded (US\$BN)</b>
<b>ALSI</b>	1.00	0.38	0.62	0.77
<b>GDP</b>	0.38	1.00	0.93	0.27
<b>MC</b>	0.62	0.93	1.00	0.49
<b>TVT</b>	0.77	0.27	0.49	1.00

Source: Authors' computation (2023) using E-views 12

#### 4.3 Testing for Stationarity

Following the earlier submission of Granger and Newbold (1974), most time series variables always trend in a non-

stationary way at the level distribution. When such non-stationary series are employed in a regression model, the estimates that are produced thereof will be



spurious in nature, implying that such estimates are not good of policy attention. It is against this backdrop that this study adopted both the Philip-Perron (PP) and Augmented Dickey-Fuller (ADF) unit root tests; Table 4.2 presents the findings.

The test assessed whether the Nairobi Securities Exchange 20-share index, real Gross Domestic Product, the market capitalization of domestic listed companies, and the total value of traded stocks are stationary at levels or differences, and it determined whether these variables indicate a stationary state. Since both the ADF and PP test absolute values were higher than the critical values, the results of the unit root tests reject the null hypothesis that the unit root for any variable is at first different. From the ADF test result at first difference, Nairobi Securities Exchange 20 share index, real Gross Domestic Product and Total value of stocks traded were stationary

at 5% critical level, while Market capitalization of listed domestic companies was stationary at 1% critical level. Similarly, from the PP test results, Nairobi Securities Exchange 20 share index was stationary at 5% critical level, while real the total household income. The total value of traded equities and the market capitalization of domestic listed firms were stationary at 1% critical level.

This result validates our choice the fully modified ordinary least square (FMOLS) econometric method, citing the fact that the underlying theoretical condition for the FMOLS technique is that the variables must be stationary (see Granger and Newbold, 1974; 1977a, 1977b; Sims, 1977; Quah, 1994). The stationarity tests results are reported in both Table 4.3A and 4.3B below.

**Table 4.3A: Stationarity Tests at Levels- Augmented Dickey-Fuller and Phillips-Perron Tests Approaches**

Series	t-Statistic	1% level	5% level	10% level	Remark
<b>Augmented Dickey-Fuller test</b>					
ALSI	-1.40	-3.77	-3.00	-2.64	Non-Stationary
GDP	7.62	-3.71	-2.98	-2.63	Non-Stationary
MC	-3.00	-4.37	-3.60	-3.24	Non-Stationary
TVT	-2.35	-4.37	-3.60	-3.24	Non-Stationary
<b>Phillips-Perron Test</b>					
ALSI	-1.66	-3.77	-3.00	-2.64	Non-Stationary
GDP	2.60	-4.36	-3.60	-3.23	Non-Stationary
MC	-2.71	-4.36	-3.60	-3.23	Non-Stationary
TVT	-2.34	-4.36	-3.60	-3.23	Non-Stationary

**Note that RDGP is non-Stationary because, the test values must be negative**  
**Source: Authors' computation (2023) using E-views 12**

**Table 4.3B: Stationarity Tests at Differences- Augmented Dickey-Fuller and Phillips-Perron Tests Approaches**

Series	t-Statistic	1% level	5% level	10% level	Remark
<b>Augmented Dickey-Fuller test</b>					
ALSI	-3.57**	-3.79	-3.01	-2.65	Stationary
GDP	-4.33**	-4.37	-3.60	-3.24	Stationary
MC	-4.72***	-4.39	-3.61	-3.24	Stationary
TVT	-4.19**	-4.39	-3.61	-3.24	Stationary
<b>Phillips-Perron Test</b>					
ALSI	-3.57**	-3.79	-3.01	-2.65	Stationary
GDP	-4.65***	-4.37	-3.60	-3.24	Stationary
MC	-7.02***	-4.37	-3.60	-3.24	Stationary
TVT	-5.57***	-4.37	-3.60	-3.24	Stationary

**NB: \*\*Significant at 5%, and \*\*\*Significant at 1%.**

**Source: Authors' computation (2023) using E-views 12**

**4.4 Co-Integration Test**

Principally, regression model's cointegration test is used to determine whether or not the variables have a long-term relationship. As a result, this study used the single equation approach that was created by Phillips and Ouliaris (1990) and Engle and Granger (1987) with the null hypothesis that there is no cointegration in all combinations of linear equations. The Engle-Granger tau-statistic (t-statistic) and the Phillips-Ouliaris tau-statistic (t-statistic) both failed to reject the null hypothesis that there was no cointegration, according to the data in Table 4.4. It is implied that the variables lack cointegration, meaning there

is no long-term link between real GDP model variables).

Following earlier submission of Pesaran (1997), the findings suggest that there isn't a consistent, enduring connection between the real GDP model variables under consideration. This further validates the choice of FMOLS technique on the basis of stationarity. Thus, the variables in the model will be incorporated at differences (their points of stationarity). Table 4.4 presents the results of the cointegration tests using both Engle-Granger (1987) as well as Phillips-Ouliaris (1990) methods below.

**Table 4.4: Cointegration Tests Results-Eagle-Granger and Philip-Ouliaris Approach**

Null hypothesis: Series are not cointegrated

Series: ALSI GDP MC TVT

Sample (adjusted): 1997 2021

Included observations: 25 after adjustments

Automatic lags specification based on t-statistic criterion (maxlag=4)

Dependent	Eagle-Granger Approach				Philip-Ouliaris Approach			
	<i>Automatic lags specification based on Schwarz criterion (maxlag=1)</i>				<i>Long-run variance estimate (Bartlett kernel, Newey-West fixed bandwidth)</i>			
	tau-statistic	Prob.*	z-statistic	Prob.*	tau-statistic	Prob.*	z-statistic	Prob.*
ALSI	-2.797	0.367	79.190	1.000	-2.72	0.39	79.190	0.31
GDP	-2.553	0.470	-12.059	0.364	-2.63	0.43	-12.059	0.35
MC	-2.463	0.513	-9.708	0.545	-2.45	0.52	-9.708	0.61
TVT	-3.263	0.204	51.421	1.000	-3.77	0.09	51.421	0.13

\*MacKinnon (1996) p-values.

Source: Authors’ computation (2023) using E-views 12

#### 4.5 Empirical Results and Discussion of Findings

Having established that the variables are stationary with no evidence of cointegration, the parameters in the RGDP model were generated with the aid of the FMOLS technique. The estimation result is presented in Table 4.5. Though, further diagnostic tests were carried out to validate the robustness of the parameters generated from the main analyses.

Fundamentally, the outcomes of the FMOLS estimations revealed that, Market capitalization of listed domestic companies exert a positive statistically meaningful influence on real GDP at the key 1 percent level. The implication of this finding is that, a rise in Market capitalization of listed domestic companies in the Nairobi Securities Exchange will help in developing the economy as more investible funds will be made available in the country’s financial system.

This finding is in line with earlier findings of Beck, Lundberg and Majnoni (2006), who averred that the stock market has been known as a credible channel for obtaining investible funds thereby availing viable alternative platforms for financing investment and assist in availing liquidity in the system. One key property of a well-developed economy is the presence of an efficient financial system that promotes stable flow of capital in the economy which in turn will boost the level of economic activities, leading to output growth in the long run.

On the other hand, this result contradicts earlier finding of Jibril et al., (2015) who assessed the performance of stock market on economic growth and found that market capitalization exhibited negative impact on economic growth. Specifically, the result depicts that a billion dollars rise in the total market value of a company's outstanding

shares of stock in Kenya will cause about \$1.73 billion increase in real GDP of Kenya.

Similarly, the coefficient representing total value of stocks traded (-2.50) and the associated p-value of 0.19 though negates our apriori expectation, indicates that total value of stocks traded had a statistically insignificant negative relationship with Real GDP. The implication of this finding is that, a rise in total value of stocks traded in the Nairobi Securities Exchange will encumber economic expansion. This finding corroborates earlier finding of Jibril et al. (2015), who studied how Nigeria's stock market development affected economic growth and found that traded stock value exhibited a negative impact on growth.

This result thus negates the fact that more investible funds will be made available to investors as the total value of stocks traded rise. Obviously, the result showed that when there is a billion dollars increase in the total value of stocks traded in the Nairobi Securities Exchange ceteris paribus, Real GDP level will crumble by \$2.50billion and vice versa.

The coefficient representing Nairobi Securities Exchange 20 share index was (-0.0027) further indicated that Nairobi Securities Exchange 20 share index exert a statistically significant negative impact on real GDP of Kenya at 1 percent critical level. This (though negates our apriori expectation) suggests that as the average value of the share prices of all companies on a stock exchange drops, the level of economic engagements will rise. Clearly, the result indicated that when there is 1-unit increase in Nairobi Securities Exchange 20 share index in Kenya, ceteris paribus, the country's real GDP will decline by 0.0027-unit and vice versa.

The coefficient of determination ( $R^2$ ) showed that, about 0.92 or 92% of the systematic changes in the real GDP of Kenya is accounted for by the joint influence of Nairobi Securities Exchange 20 share index. The remaining 8% is attributable to additional factors covered under the market capitalization of public domestic firms and the total value of stocks traded stochastic disturbance term in equation (3.2) above. This further confirms that the model is well-fitted. Thus, the estimation result is obtained and presented in Table 4.5 below.

**Table 4.5: Fully Modified Least Squares (FMOLS) Estimates**

Dependent Variable: GDP

Method: Fully Modified Least Squares (FMOLS)

Sample (adjusted): 1998-2021

Included observations: 24 after adjustments

Cointegrating equation deterministic: C

Long-run covariance estimate (Bartlett kernel, Newey-West automatic bandwidth = 3.9021 (with offset=1), NW automatic lag length = 2)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	29.91	2.15	13.93	0.00***
MCAP	1.73	0.09	19.73	0.00***
TVT	-2.50	1.84	-1.36	0.19
ALSI	-0.0027	0.00	-3.06	0.01***
R-squared	0.92	Mean dependent var		39.95
Adjusted R-squared	0.90	S.D. dependent var		12.57
S.E. of regression	3.91	Sum squared resid		275.65
Long-run variance	7.46			

NB: \*\*\* means significant at 1 per cent.

**Source: Authors' computation (2023) using E-views 12**

### 5. Conclusion and Recommendation

The performance of the stock market has been proven to be of enormous significance for economic growth and development both in industrialized and emerging economies. Specifically, the stocks markets can be regarded as strategic avenues for achieving strategic economic objectives of a nation through the performance of the local financial institutions and effective management of investable funds across different sectors of the wider economy.

The study has been able to yet unveil this significant role by re-establishing and validating previous findings on the relationship between economic growth and performance of stocks markets. It is thought that the stock market is a crucial area where wealth generation might improve GDP performance. Earlier research efforts have also recognized this role of the stock market in facilitating a nation's economic growth. The conclusion that can be drawn from this research is that Stock market significantly influence Kenya economic growth.

Specifically, this study concludes that, Market Capitalization of the Stock Exchange and All Share Index significantly influence the growth of the economy Kenya during the period of assessments. It therefore suggests that, if the country wants to boost its economic performance, then due recognition should be accorded to the above policy variables in the conception, formulation and implementation of finance-led growth in the long-run.

1. Given the statistically significant positive relationship between market capitalization and economic growth in Kenya, it is imperative for the country to adopt tactical measures that will help reposition the country's stock market whereby investors will be induced to commit their investible funds for expanding market capitalization with will help drive speedy economic activities in the country.
2. The result also revealed that total value of stocks traded had a statistically insignificant negative relationship with Real GDP. This is a worrisome situation implying that

the level trading activities on the Nairobi Stock Exchange has not been encouraging. For instance, investors don't have access to quality market information that can drive their investment decisions. It is therefore recommended that market information should be freely available to both existing and prospective investors as well as other stakeholders in the financial sector.

3. The Nairobi Securities Exchange 20 share index exerted a statistically significant negative impact on real GDP of Kenya. This negative effect is evidence of unfavourable

performance in relation to the country's output growth in recent years. This index is the key measure of stock market performance which indicates the extent of market returns and the associated level of explosiveness of the market. It therefore becomes important for the country financial regulators to adopt policy avenues to boost the interest of these investors who will be willing and able to invest their funds in the market to raise the level of business investments which will in turn drive economic activities and thus, speedy economic growth in the long run.

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