

---

---

# MACRO-ECONOMIC VARIABLE FLUCTUATIONS AND STOCK MARKET PERFORMANCE OF COMMERCIAL BANKS LISTED AT THE NAIROBI SECURITIES EXCHANGE

<sup>1\*</sup>Hussein Edin Issack, <sup>2</sup>Dr. Lucy Njogu & <sup>3</sup>Dr. Oluoch Oluoch

<sup>1</sup>MSC Finance Candidate, Jomo Kenyatta University of Agriculture and Technology,  
Kenya

<sup>2,3</sup>Department of Accounting and Finance, Jomo Kenyatta University of Agriculture  
and Technology, Kenya

\*Email Address for the Corresponding Author: [edinhussein10@gmail.com](mailto:edinhussein10@gmail.com)

Publication Date: March 2026

---

## ABSTRACT

**Problem:** The financial performance of commercial banks listed at the Nairobi Securities Exchange (NSE) is influenced by fluctuations in macroeconomic variables, yet the extent to which factors such as inflation, interest rates, exchange rates, and economic growth affect bank performance in Kenya remains unclear.

**Purpose of the Study:** The purpose of this study was to examine the effect of macroeconomic variables on the financial performance of commercial banks listed at the NSE in Kenya.

**Methodology:** The study was anchored on Keynesian Economic Theory, Arbitrage Pricing Theory, and the Market Power Theory. A descriptive research design was adopted. The target population comprised the nine commercial banks listed at the NSE. Secondary data on inflation, interest rates, exchange rates, and GDP was obtained from the Kenya National Bureau of Statistics, while share price data was obtained from the NSE. The study used quarterly data for the period 2015–2024, resulting in 40 observations. Time series analysis using multiple linear regression was conducted after diagnostic tests for linearity, homoscedasticity, autocorrelation, multicollinearity, and stationarity. Hypotheses were tested at a 95% confidence level using the t-statistic.

**Findings:** The results indicate that Consumer Price Index (CPI) volatility, Central Bank Rate (CBR) volatility, and exchange rate volatility negatively and significantly influence the financial performance of commercial banks listed at the NSE. Conversely, GDP growth has a positive and significant effect on bank performance, indicating that strong economic growth enhances the financial performance of commercial banks.

**Recommendations:** The study recommends strengthening fiscal and monetary policy coordination to stabilize inflation and ensure predictable price movements. It also recommends maintaining a consistent and transparent Central Bank Rate policy and strengthening exchange rate risk management mechanisms among banks and regulators.

**Keywords:** *Macro-Economic Variable, Fluctuations, Stock Market Performance, Commercial Banks Listed, Nairobi Securities Exchange*

---

## **INTRODUCTION**

The relationship between macroeconomic variables and the financial performance of commercial banks has attracted significant scholarly and policy interest due to its implications for financial sector stability (Kamau & Were, 2022). Macroeconomic indicators such as inflation, interest rates, exchange rates, and gross domestic product (GDP) growth are widely recognized as key determinants of bank profitability and operational performance (Ngugi et al., 2023). These factors influence lending conditions, asset quality, investment decisions, and the overall stability of the banking sector. Listed commercial banks are particularly sensitive to such macroeconomic changes due to their large balance sheets, diversified portfolios, and integration with financial markets (Central Bank of Kenya, 2024).

Publicly listed banks such as KCB Group, Equity Bank, and NCBA Bank operate on a scale that exposes them more directly to macroeconomic fluctuations than smaller or non-listed banks (Mwangi, 2021). Their involvement in foreign exchange transactions, capital market activities, and large corporate lending portfolios increases their vulnerability to inflationary pressures, interest rate changes, and exchange rate movements (Odhiambo & Wekesa, 2022). As a result, macroeconomic volatility can significantly affect their revenue generation, loan performance, and capital adequacy (Mugambi & Mutuku, 2023). High inflation can erode real returns and reduce borrowers' repayment capacity, while rising interest rates may increase the cost of borrowing and elevate credit risk (Mutiso & Karanja, 2021). Similarly, economic slowdowns reduce business activity and credit demand, thereby affecting bank profitability and performance (Wainaina & Kiragu, 2022).

Globally, macroeconomic conditions have consistently been shown to influence the financial performance of listed commercial banks due to their strong integration with global financial systems (IMF, 2023; OECD, 2021). In developed economies such as the United States and the Eurozone, changes in inflation and monetary policy directly affect bank profitability through interest rate channels and liquidity conditions (Williams & Green, 2024). Interest rate adjustments by central banks can significantly alter banks' net interest margins and the valuation of financial assets (Bianchi & Bigio, 2020). Exchange rate movements also affect the earnings of multinational banks operating across multiple currency zones, exposing them to transaction and translation risks (Barro & Misra, 2023; Zhang et al., 2024). Major

macroeconomic disruptions such as the COVID-19 pandemic further demonstrated how economic shocks can weaken bank profitability and increase loan loss provisions (BIS, 2022; Goldstein et al., 2023).

In developing regions, macroeconomic instability often has an even stronger influence on banking sector performance due to structural economic vulnerabilities and policy uncertainties (Chakraborty & Hussain, 2022). For example, high inflation rates in countries such as Nigeria have been associated with rising non-performing loans among major banks as declining purchasing power affects borrowers' repayment capacity (CBN, 2024). Similarly, exchange rate depreciation across several emerging economies has exposed banks involved in international transactions to significant foreign exchange risks (Owino & Muchiri, 2021). Across Sub-Saharan Africa, listed commercial banks control a significant share of banking sector assets and therefore respond strongly to fluctuations in GDP growth and macroeconomic conditions (AfDB, 2023). Economic slowdowns have been linked to declining profitability and returns on assets among banks in countries such as Ghana (BoG, 2024).

In Kenya, listed commercial banks including KCB Group, Equity Bank, NCBA, and Co-operative Bank dominate the financial sector, controlling over 70% of the industry's assets and deposits (CBK, 2024). Their performance is therefore closely linked to macroeconomic developments such as inflation, exchange rate movements, and monetary policy changes (Ngugi & Wambua, 2022). For instance, Kenya's inflation rate averaged about 7.8% in 2023, increasing credit risk and reducing real returns in sectors heavily financed by banks (KNBS, 2024). Similarly, increases in the Central Bank Rate (CBR) have raised borrowing costs and slowed credit uptake across both corporate and retail markets (CBK, 2024). Exchange rate depreciation has also increased the cost of servicing foreign-denominated obligations for banks engaged in cross-border finance and international trade (Karani & Njeru, 2021).

In addition, rising public debt levels in Kenya have increased banks' holdings of government securities, potentially crowding out private sector lending and influencing bank profitability (National Treasury, 2024; Obiero & Makori, 2022). These developments highlight the strong link between macroeconomic conditions and the financial performance of commercial banks listed at the Nairobi Securities Exchange.

## **STATEMENT OF THE PROBLEM**

Stock market returns are widely used as a proxy for assessing the financial performance of publicly traded companies (Muriuki & Kariuki, 2023). However, the extent to which macroeconomic variables influence the stock performance of commercial banks, particularly those listed on stock exchanges in developing economies such as Kenya, remains insufficiently understood (Nassaji, 2019). Since firms operate within broader macroeconomic environments, fluctuations in economic indicators such as inflation, interest rates, exchange rates, and GDP growth can significantly influence their performance (Ongori, 2018). This issue is particularly important for commercial banks because instability in the banking sector can trigger systemic financial crises due to their central role in financial intermediation (Hossain & Ali, 2017).

The challenge is more pronounced in developing economies characterized by macroeconomic volatility and structural vulnerabilities (Chakraborty & Hussain, 2022). In Kenya, banks listed at the Nairobi Securities Exchange (NSE), including KCB, Equity Bank, and Co-operative Bank, control over 70% of the banking sector's total assets and deposits, making them critical to financial stability (CBK, 2024). However, these institutions continue to face macroeconomic pressures such as inflation, exchange rate depreciation, and interest rate volatility, which threaten their profitability, asset quality, and capital adequacy (Ngugi & Wambua, 2022).

The Kenyan shilling depreciated by approximately 26.8% in 2023, reaching KSh 156.5 per US dollar, thereby increasing the cost of servicing foreign-currency denominated liabilities. During the same period, inflation averaged 7.7%, remaining slightly above the Central Bank of Kenya's policy target range of 2.5%–7.5%. Despite expansion in the banking sector where total assets grew by 17.6% and deposits increased by 15.1% non-performing loans rose to 14.8% of gross loans, the highest level since 2007, while pre-tax profits declined by 9.1% (KBA, 2023). Recent data further shows that the market-weighted average Return on Average Equity (RoAE) for listed banks was 21.6% in Q1 2025, while NPL coverage improved to 66.6%, indicating continued pressure on asset quality (Cytton, 2025).

Despite these developments, the extent to which macroeconomic indicators influence the stock market performance of commercial banks listed at the NSE remains unclear. This lack of clarity arises from conflicting theoretical perspectives and mixed empirical findings on the

relationship between macroeconomic variables and stock market performance, particularly within the banking sector.

### **RESEARCH OBJECTIVE**

To analyze the effect of macroeconomic variable fluctuations on stock market performance of commercial banks listed at the Nairobi Securities Exchange.

### **LITERATURE REVIEW**

The section presents the theoretical review and the conceptual framework.

### **THEORETICAL REVIEW**

The study was guided by the Keynesian Economic Theory, Arbitrage Pricing Theory (APT) and Market Power Theory.

#### **Keynesian Economic Theory**

The Keynesian Economic Theory was developed by the British economist John Maynard Keynes in the 1930s during the Great Depression. The theory states that aggregate demand, including consumption, investment, and government spending, is the main driver of economic activity and employment. Keynes argued that markets are not always self-correcting and that government intervention through fiscal and monetary policy is necessary to stabilize the economy. According to Keynes (1936), fluctuations in macroeconomic variables such as inflation and interest rates can negatively affect investment and profitability in sectors such as banking. Listed commercial banks are particularly vulnerable to inflationary pressures due to their large loan portfolios and financial intermediation roles, which may erode real returns and increase credit default risk (Mwangi & Waweru, 2021; Otieno & Kibet, 2022; Kamau & Njenga, 2023).

However, the theory has faced criticism. Friedman (1970) argued that Keynesian theory underestimates the role of monetary policy and instead supported monetarist approaches to inflation control. Lucas (1976) criticized Keynesian models for ignoring rational expectations, suggesting that individuals adjust their behavior in anticipation of government policy interventions. Similarly, Sargent and Wallace (1981) noted that sustained government intervention could trigger inflation without addressing structural economic problems. Despite

these criticisms, scholars such as Arestis and Sawyer (2020) and Blanchard (2022) continue to support Keynesian demand management and fiscal policy in stabilizing economies. In Kenya, Mutua and Njoroge (2023) found that public expenditure and interest rate controls positively influenced commercial banks' financial stability.

The Keynesian framework remains relevant in explaining how inflation and interest rate fluctuations influence the financial performance and stock returns of commercial banks. Inflation reduces purchasing power, increases operating costs, and weakens borrowers' repayment capacity, thereby affecting bank profitability and market performance. The theory therefore provides a useful framework for understanding how macroeconomic policy shifts influence the financial performance and stock returns of commercial banks in Kenya.

### **Arbitrage Pricing Theory (APT)**

Arbitrage Pricing Theory (APT) was developed by Stephen Ross in 1976 as an alternative to the Capital Asset Pricing Model (CAPM). The theory states that the expected return of a financial asset can be expressed as a linear function of several macroeconomic factors such as inflation, GDP growth, exchange rates, and interest rates. Unlike CAPM, which assumes a single market factor, APT allows multiple risk factors to influence asset prices. In the banking sector, APT provides a framework for explaining how changes in macroeconomic conditions affect the profitability and valuation of bank assets. Listed commercial banks, which are exposed to diverse market risks, can use APT to manage and adjust their portfolios in response to changes in economic indicators (Kiprotich, 2022; Okoth & Simiyu, 2023; Chacha & Gachoka, 2024).

However, APT has faced criticism. Roll (1977) argued that the theory does not clearly specify which macroeconomic variables should be included, making empirical testing difficult. Chen, Roll, and Ross (1986) also noted that identifying and measuring relevant macroeconomic factors is complex and may lead to model misspecification. In addition, Fama and French (1993) argued that multi factor models such as APT may be statistically unstable across different economic contexts. Despite these criticisms, several scholars support the theory. Connor and Korajczyk (1995) confirmed the robustness of APT using empirical asset return data. More recently, Goyal and Welch (2021) highlighted its relevance in modern portfolio

management due to its flexibility in incorporating macroeconomic shocks. In East Africa, Nyambura and Otieno (2023) applied APT to examine how GDP growth and exchange rates influence bank earnings and asset quality.

APT remains relevant in analyzing the influence of interest rate fluctuations and exchange rate volatility on the financial and stock market performance of commercial banks. Banks are highly exposed to interest rate and foreign exchange movements due to their participation in domestic and international financial markets. The theory helps explain how macroeconomic variables translate into changes in bank profitability, asset prices, and risk exposure, making it a useful framework for evaluating the financial and stock market performance of commercial banks.

### **Market Power Theory**

Market Power Theory was introduced by Edward Mason and later advanced by Bain (1956). The theory argues that firms with strong market control can influence prices, restrict entry, and shape market conditions to maximize profits. In banking, particularly among listed commercial banks, institutions with large capital bases and extensive branch networks can command higher margins, absorb macroeconomic shocks, and maintain stable performance during economic volatility. They also benefit from brand loyalty, regulatory advantages, and improved access to liquidity facilities, which reinforce their market dominance (Muturi & Wekesa, 2020; Wambua & Muriuki, 2022; Karimi & Maina, 2024).

However, critics argue that market dominance does not always translate into efficiency. Berger and Hannan (1998) found that excessive market power may lead to inefficiencies such as bureaucratic decision making and reduced innovation. Claessens and Laeven (2004) also noted that banking sector concentration can increase consumer costs and encourage risk taking. In Kenya, Were and Muthoni (2022) questioned whether large banks deliver superior services or simply use their size to limit competition. Despite these criticisms, some scholars support the theory. Demirgüç-Kunt and Huizinga (2010) found that large banks often achieve higher returns on equity due to economies of scale and stronger shock absorption capacity. Beck et al. (2021) also showed that bank size and concentration enhance resilience to macroeconomic shocks. In Kenya, Njiru and Kamau (2023) observed that banks listed at NSE consistently

outperformed smaller banks in ROA and ROE during interest rate increases and economic downturns.

Market Power Theory therefore remains relevant in explaining the effect of GDP growth on the financial performance of listed commercial banks. During periods of economic growth, large banks expand lending, mobilize more deposits, and record higher profitability. Their market dominance enables them to benefit more from macroeconomic expansion than smaller banks, making the theory useful in analyzing the relationship between GDP growth and bank performance.

### CONCEPTUAL FRAMEWORK

According to Mugenda and Mugenda (2003), a conceptual framework outlines the relationship between variables and provides a visual representation of how different concepts are interrelated, helping to clarify and direct the study's objectives and hypotheses. In this study, the conceptual framework illustrates the relationship between macroeconomic factors (independent variables) and the financial performance (dependent variable) of commercial banks listed at the Nairobi Securities Exchange.

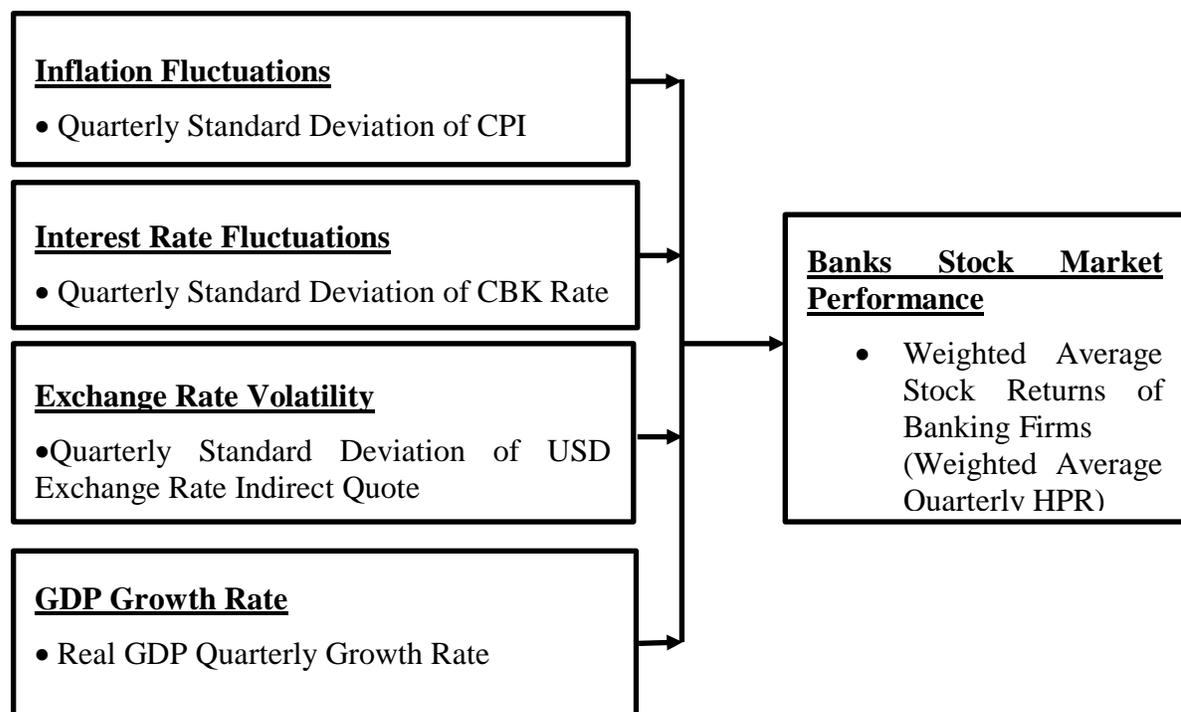


Figure 1: Conceptual Framework

## RESEARCH METHODOLOGY

The study adopted a positivist philosophy and employed a causal-descriptive research design to examine the relationship between macroeconomic variables and financial performance of commercial banks listed at the Nairobi Securities Exchange. The target population comprised eleven commercial banks listed at the NSE from 2015 to 2024, though Bank of Kigali was excluded due to its shorter listing period, leaving ten banks for analysis. Secondary data was obtained quarterly from the Kenya National Bureau of Statistics, Central Bank of Kenya bulletins, and NSE trading records, yielding forty observations. The dependent variable was the weighted average holding period return (WHPR) calculated as  $WHPR = \sum W_i \times HPR_i$ , where  $W_i$  represents market capitalization weights and HPR measures quarterly stock price changes. Independent variables included quarterly CPI volatility (QPIV), CBK rate volatility (QBRV), exchange rate volatility (QERV) measured as standard deviations from three-quarter moving averages, and quarterly GDP growth rate (QGGR). Data analysis was conducted using SPSS version 25, employing descriptive statistics and multiple linear regression specified as  $WHPR = \beta_0 + \beta_1 QPIV + \beta_2 QBRV + \beta_3 QERV + \beta_4 QGGR + e$ . Diagnostic tests for linearity, homoscedasticity, autocorrelation, multicollinearity, and stationarity were performed before regression analysis, and hypotheses were tested at the 95 percent confidence level using t-statistics.

## RESULTS AND DISCUSSIONS

This section presents the findings from the analysis of macroeconomic variable fluctuations and stock market performance of commercial banks listed at the Nairobi Securities Exchange. The results are organized into descriptive statistics, correlation analysis, regression analysis, and hypothesis testing.

### Descriptive Statistics

Descriptive statistics were computed to summarize the central tendency, dispersion, and distributional characteristics of the study variables over the forty quarterly observations from 2015 to 2024. Table 1 presents the means, standard deviations, kurtosis, and skewness for each variable.

**Table 1: Summary of Descriptive Statistics**

<b>Variable</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Kurtosis</b>	<b>Skewness</b>
CPI	6.24	1.29	-0.41	0.32
CBR	9.42	1.64	-0.57	0.28
GDP	5.24	2.16	0.83	-0.61
Dollar EVR	121.0	17.20	-0.21	0.45
Stock Returns	2.08	4.10	1.73	-0.82

The descriptive statistics reveal important patterns in the macroeconomic and financial indicators over the study period. Inflation measured by CPI averaged 6.24 with a standard deviation of 1.29, kurtosis of -0.41, and skewness of 0.32, indicating a relatively stable, near-normal distribution with slight rightward skew and limited inflation shocks. Interest rates measured by CBR showed a mean of 9.42 and standard deviation of 1.64, with kurtosis of -0.57 and skewness of 0.28, reflecting moderate variability and occasional upward adjustments consistent with monetary policy interventions. GDP growth averaged 5.24 with a standard deviation of 2.16, kurtosis of 0.83, and negative skewness of -0.61, suggesting that economic contractions during the study period were more severe than expansions, highlighting Kenya's vulnerability to shocks such as the COVID-19 pandemic and droughts. The exchange rate averaged 121.0 with high volatility reflected in a standard deviation of 17.2, kurtosis of -0.21, and skewness of 0.45, indicating tendency toward sharp depreciation rather than appreciation with implications for trade and debt servicing. Stock returns of listed banks averaged 2.08 with a standard deviation of 4.10, kurtosis of 1.73, and skewness of -0.82, demonstrating substantial variability with heavy tails and leftward skew, meaning negative returns were more extreme than positive ones, underscoring high sensitivity to macroeconomic shocks and policy changes.

### **Correlation Analysis**

Pearson correlation analysis was conducted to examine the bivariate relationships between the weighted holding period return of commercial banks listed at the NSE and the independent variables comprising consumer price index volatility, CBK rate volatility, exchange rate volatility, and GDP growth rate. Table 2 presents the correlation coefficients and their statistical significance.

**Table 2: Correlations Matrix**

	WHPR	CPI Volatility (X1)	CBR Volatility (X2)	Exchange Rate Volatility (X3)	GDP Growth (X4)
WHPR	1				
CPI Volatility (X1)	-.419** (.007)	1			
CBR Volatility (X2)	-.454** (.003)	.184 (.890)	1		
Exchange Rate Volatility (X3)	-.331* (.037)	-.057 (.602)	-.043 (.697)	1	
GDP Growth (X4)	.391** (.013)	.082 (.453)	.208 (.754)	.144 (.187)	1

The correlation analysis revealed significant relationships between macroeconomic variables and bank performance. Consumer Price Index volatility demonstrated a significant negative correlation with WHPR ( $r = -0.419$ ,  $p = 0.007$ ), indicating that inflationary instability undermines banking sector profitability and stability, consistent with Arbitrage Pricing Theory's prediction that inflation volatility distorts financial markets. CBK rate volatility exhibited a stronger negative correlation with WHPR ( $r = -0.454$ ,  $p = 0.003$ ), suggesting that interest rate instability adversely affects bank performance by creating uncertainty in lending and borrowing costs, thereby discouraging credit uptake and weakening revenue streams, aligning with Were and Tiriongo (2013) who documented that erratic monetary policy interventions undermine banking stability in Kenya. Exchange rate volatility showed a significant negative association with WHPR ( $r = -0.331$ ,  $p = 0.037$ ), implying that currency fluctuations weaken bank performance through increased foreign exchange risks, higher hedging costs, and adverse effects on trade financing, supporting Kipngetch and Kibet (2018) who noted that exchange rate instability negatively affects Kenya's financial sector. GDP growth rate displayed a positive and significant correlation with WHPR ( $r = 0.391$ ,  $p = 0.013$ ), indicating that economic expansion enhances bank performance by stimulating credit demand, improving repayment capacity, and strengthening balance sheets, corroborating Levine (2005)

and Nyamongo and Misati (2010) who emphasized the bidirectional relationship between financial performance and economic growth in Kenya.

### Regression Analysis

Multiple linear regression analysis was conducted to examine the joint and individual effects of macroeconomic variables on the stock market performance of commercial banks listed at the NSE. Table 3 presents the model summary, analysis of variance, and regression coefficients.

**Table 3: Regression Results**

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	0.709	0.502	0.445	0.211

#### ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.565	4	0.391	8.821	.000
Residual	1.551	35	0.044		
Total	3.116	39			

*Critical F-value = 2.40*

#### Coefficients

Variable	B	Std. Error	Beta	t	Sig.
(Constant)	-.5615	.450		-1.248	.220
CPI Volatility	-.2860	.097	-.375	-2.937	.006
CBR Volatility	-.2698	.104	-.329	-2.582	.014
Exchange Rate Volatility	-.3672	.162	-.310	-2.268	.030
GDP Growth Rate	.2755	.114	.315	2.411	.021

Regression Model:  $WHPR = -.5615 - .2860(QPIV) - .2698(QBRV) - .3672(QERV) + .2755(QGGR) + e$

The regression results demonstrate that the model was statistically significant and appropriate for examining the relationships between macroeconomic variables and bank performance. The adjusted R-squared of 0.445 indicates that 44.5 percent of the variation in weighted holding period return can be explained by CPI volatility, CBR volatility, exchange rate volatility, and GDP growth rate, while the remaining 55.5 percent is attributable to other factors not included

in the model. The correlation coefficient ( $R = 0.709$ ) reveals a strong relationship between the predictor variables and bank performance. The ANOVA results confirm that the regression model was statistically significant ( $F = 8.821$ ,  $p = 0.000$ ), with the calculated F-value exceeding the critical value of 2.40, indicating that the predictor variables collectively exert significant influence on bank performance. The regression coefficients provide insights into individual variable effects.

The constant term was negative and insignificant ( $\beta_0 = -0.5615$ ,  $p = 0.220$ ), suggesting that the independent variables are critical in explaining WHPR variations. Consumer Price Index volatility had a negative and significant effect on WHPR ( $\beta_1 = -0.2860$ ,  $p = 0.006$ , Beta = -0.375), indicating that inflationary instability undermines bank performance by creating uncertainty in interest rate structures and eroding loan repayment capacity, consistent with Li (2016) who observed that monetary policy instability compresses lending spreads. CBK rate volatility demonstrated a negative and significant relationship with WHPR ( $\beta_2 = -0.2698$ ,  $p = 0.014$ , Beta = -0.329), confirming that interest rate fluctuations disrupt investment planning and compress banks' interest margins, supporting Were and Tiriongo (2013). Exchange rate volatility showed a negative and significant impact on WHPR ( $\beta_3 = -0.3672$ ,  $p = 0.030$ , Beta = -0.310), implying that currency instability increases foreign exchange risks and hedging costs while adversely affecting trade financing, aligning with Li (2020) and Kipngetich and Kibet (2018). GDP growth rate exhibited a positive and significant effect on WHPR ( $\beta_4 = 0.2755$ ,  $p = 0.021$ , Beta = 0.315), demonstrating that economic expansion enhances bank performance by stimulating credit demand, improving repayment capacity, and creating investment opportunities, corroborating Li (2015), Nyamongo and Misati (2010), and Levine (2005).

### **Hypothesis Testing**

The study tested four null hypotheses at the 95 percent confidence level. The first hypothesis ( $H_{01}$ ) stated that inflation fluctuations have no significant effect on stock market performance of commercial banks listed at the NSE. The regression results ( $t = -2.937$ ,  $p = 0.006$ ) led to rejection of  $H_{01}$ , confirming that inflation fluctuations significantly influence bank performance negatively by raising uncertainty in interest rate structures and loan repayment capacity, supporting Folawewo and Tennant (2017) and Nkegbe and Ustarz (2015). The second hypothesis ( $H_{02}$ ) posited that interest rate fluctuations have no significant effect on

stock market performance. The results ( $t = -2.582$ ,  $p = 0.014$ ) resulted in rejection of  $H_{02}$ , demonstrating that CBK rate volatility significantly undermines bank performance by compressing interest margins and creating borrowing cost uncertainty, consistent with Were and Tiriongo (2013) and Saunders and Schumacher (2000).

The third hypothesis ( $H_{03}$ ) proposed that exchange rate volatility has no significant effect on stock market performance. The findings ( $t = -2.268$ ,  $p = 0.030$ ) led to rejection of  $H_{03}$ , indicating that exchange rate fluctuations significantly erode bank performance through increased foreign exchange risks and hedging costs, aligning with Kipngetich and Kibet (2018) and Eichengreen and Hausmann (1999). The fourth hypothesis ( $H_{04}$ ) stated that GDP growth has no significant effect on stock market performance. The results ( $t = 2.411$ ,  $p = 0.021$ ) prompted rejection of  $H_{04}$ , confirming that GDP growth significantly enhances bank performance by stimulating credit demand and improving repayment capacity, reinforcing Nyamongo and Misati (2010) and Levine (2005).

## **CONCLUSION**

The study concluded that volatility in the Consumer Price Index (CPI) has a negative and significant relationship with the stock market performance of commercial banks listed at the Nairobi Securities Exchange. Fluctuations in inflation erode borrowers' purchasing power, increase operational costs, and raise default risks, which ultimately reduce bank profitability and market returns. The study further concluded that fluctuations in the Central Bank Rate (CBR) negatively and significantly influence the performance of commercial banks listed at the NSE. Volatility in the benchmark interest rate creates uncertainty in credit markets, discourages borrowing and lending activities, and affects banks' revenue generation. The study also concluded that exchange rate volatility has a negative and significant relationship with the performance of commercial banks listed at the NSE. Fluctuations in the value of the Kenya Shilling against the US Dollar increase foreign exchange risk, raise hedging costs, and negatively affect the profitability of banks involved in international transactions. Lastly, the study concluded that GDP growth has a positive and significant relationship with the performance of commercial banks listed at the NSE. Economic expansion increases demand for credit, improves borrowers' repayment capacity, and enhances the overall profitability and stability of the banking sector.

## RECOMMENDATIONS

Based on the findings, the study recommends that policymakers and the Central Bank of Kenya strengthen measures aimed at stabilizing inflation in order to reduce CPI volatility. Stable prices create a predictable business environment that supports banking sector performance. The study further recommends that the Central Bank of Kenya maintain a consistent and transparent approach in setting the Central Bank Rate. Predictable monetary policy and clear communication would reduce uncertainty in credit markets and support banking sector stability. In addition, the study recommends that commercial banks strengthen exchange rate risk management strategies by diversifying foreign currency portfolios and enhancing hedging mechanisms. Policymakers should also support measures that enhance foreign exchange stability. Lastly, the study recommends that the government promote policies that stimulate sustainable economic growth through investment in productive sectors. Economic expansion increases demand for financial services and strengthens the performance of commercial banks.

## REFERENCES

- Arestis, P., & Sawyer, M. (2020). On the relevance of Keynesian economics. *Cambridge Journal of Economics*, 44(1), 1–18.
- Bain, J. S. (1956). *Barriers to new competition: Their character and consequences in manufacturing industries*. Harvard University Press.
- Beck, T., Demirgüç-Kunt, A., & Levine, R. (2021). Bank concentration and fragility: Impact and mechanics. *Journal of Financial Intermediation*, 49, 100877.
- Berger, A. N., & Hannan, T. H. (1998). The efficiency cost of market power in the banking industry: A test of the "quiet life" and related hypotheses. *Review of Economics and Statistics*, 80(3), 454–465.
- Blanchard, O. (2022). Fiscal policy under low interest rates. *American Economic Review*, 112(1), 1–26.
- Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press.
- Central Bank of Kenya. (2024). *Bank supervision annual report 2023*. <https://www.centralbank.go.ke>
- Chacha, D., & Gachoka, D. (2024). Macroeconomic risk factors and bank profitability in Kenya: A multi-factor model approach. *Journal of Finance and Economics*, 12(1), 89–103.
- Chakraborty, I., & Hussain, M. (2022). Macroeconomic volatility and bank performance: Evidence from developing economies. *Journal of Financial Economic Policy*, 14(1), 23–40.

- Chen, N., Roll, R., & Ross, S. A. (1986). Economic forces and the stock market. *Journal of Business*, 59(3), 383–403.
- Claessens, S., & Laeven, L. (2004). What drives bank competition? Some international evidence. *Journal of Money, Credit and Banking*, 36(3), 563–583.
- Connor, G., & Korajczyk, R. A. (1995). The arbitrage pricing theory and multifactor models of asset returns. In R. Jarrow, V. Maksimovic, & W. Ziemia (Eds.), *Handbooks in operations research and management science: Finance* (Vol. 9, pp. 87–144). Elsevier.
- Demirgüç-Kunt, A., & Huizinga, H. (2010). Bank activity and funding strategies: The impact on risk and returns. *Journal of Financial Economics*, 98(3), 626–650.
- Eichengreen, B., & Hausmann, R. (1999). Exchange rates and financial fragility. *NBER Working Paper No. 7418*. National Bureau of Economic Research.
- Fama, E. F., & French, K. R. (1993). Common risk factors in the returns on stocks and bonds. *Journal of Financial Economics*, 33(1), 3–56.
- Folawewo, A. O., & Tennant, D. (2017). Determinants of interest rate spreads in Sub-Saharan African countries: A dynamic panel analysis. *Emerging Markets Finance and Trade*, 44(2), 54–71.
- Friedman, M. (1970). *The counter-revolution in monetary theory*. Institute of Economic Affairs.
- Goyal, A., & Welch, I. (2021). A comprehensive look at the empirical performance of equity premium prediction II. *Review of Financial Studies*, 34(4), 1529–1566.
- Hossain, M., & Ali, M. (2017). The role of financial institutions in economic development. *International Journal of Financial Studies*, 5(4), 1–15.
- Kamau, M., & Njenga, A. (2023). Inflationary dynamics and financial performance of commercial banks in Kenya. *African Journal of Business Management*, 17(3), 57–68.
- Kamau, M., & Were, M. (2022). Macroeconomic factors and bank profitability in Kenya: A panel data analysis. *Journal of Financial and Economic Policy*, 14(3), 289–307.
- Karani, M., & Njeru, P. (2021). Foreign exchange exposure and financial performance of commercial banks in Kenya. *Journal of Economics and Financial Analysis*, 5(2), 67–80.
- Karimi, J., & Maina, F. (2024). Market concentration and profitability of Tier-1 banks in Kenya: A structural-conduct-performance approach. *African Journal of Economic Policy*, 13(1), 88–101.
- Keynes, J. M. (1936). *The general theory of employment, interest and money*. Macmillan.
- Kipngetch, K., & Kibet, L. (2018). Macroeconomic determinants of stock market development in Kenya. *International Journal of Economics and Finance*, 10(5), 125–135.
- Kiprotich, J. (2022). Arbitrage pricing theory and the valuation of commercial bank assets in Kenya. *Journal of Economics and Finance*, 10(2), 112–124.

- Levine, R. (2005). Finance and growth: Theory and evidence. In P. Aghion & S. Durlauf (Eds.), *Handbook of economic growth* (Vol. 1A, pp. 865–934). Elsevier.
- Li, X. (2015). Economic growth and commercial bank profitability: Evidence from China. *Journal of Asian Economics*, 38, 38–50.
- Li, X. (2016). Monetary policy volatility and bank performance: International evidence. *Journal of International Financial Markets, Institutions and Money*, 43, 37–53.
- Li, X. (2020). Exchange rate volatility and bank profitability in emerging markets. *International Review of Financial Analysis*, 72, 101583.
- Lucas, R. E. (1976). Econometric policy evaluation: A critique. *Carnegie-Rochester Conference Series on Public Policy*, 1, 19–46.
- Mugambi, D., & Mutuku, A. (2023). The effect of macroeconomic volatility on commercial bank stability: Evidence from Kenya. *African Finance and Banking Journal*, 8(1), 77–94.
- Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods: Quantitative and qualitative approaches*. Acts Press.
- Muriuki, J., & Kariuki, P. (2023). Monetary policy transmission and profitability of commercial banks in Kenya. *African Journal of Business Management*, 17(2), 45–58.
- Mutiso, L., & Karanja, M. (2021). Interest rates and non-performing loans in Tier-1 banks in Kenya. *Journal of Credit Risk Management*, 5(2), 60–74.
- Mutua, J., & Njoroge, L. (2023). Fiscal policy and banking sector stability in Kenya: A Keynesian analysis. *Journal of African Policy Studies*, 8(2), 34–49.
- Muturi, E., & Wekesa, T. (2020). Market structure and financial performance of commercial banks in Kenya. *Journal of Banking and Finance Research*, 7(2), 115–126.
- Mwangi, B. (2021). Structural attributes and macroeconomic sensitivity of Kenya's Tier-1 banks. *Journal of Banking and Economic Research*, 10(3), 132–148.
- Mwangi, S., & Waweru, N. (2021). Inflation and commercial bank performance in Kenya. *International Journal of Economics and Finance*, 13(5), 77–87.
- Nassaji, H. (2019). Qualitative and descriptive research: Data type versus data analysis. *Language Teaching Research*, 19(2), 129–132.
- National Treasury. (2024). *Budget Policy Statement 2024*. The National Treasury and Planning, Kenya.
- Ngugi, J., Kinyua, H., & Wekesa, S. (2023). Inflation and profitability of Kenyan banks: A macro-financial analysis. *Journal of African Economic Development*, 9(4), 101–119.
- Ngugi, R., & Wambua, J. (2022). Inflation and bank lending behavior in Kenya. *Journal of African Financial Studies*, 11(4), 89–105.
- Njiru, D., & Kamau, S. (2023). Bank size, profitability, and economic cycles: Evidence from Kenya's Tier-1 banks. *East African Journal of Finance and Accounting*, 9(2), 72–85.

- Nkegbe, P. K., & Ustarz, Y. (2015). Banks performance in Ghana: Trends and determinants. *Ghana Journal of Development Studies*, 12(1), 33–52.
- Nyambura, E., & Otieno, J. (2023). Macroeconomic factors and profitability of Tier-1 commercial banks in Kenya: An APT perspective. *East African Business Review*, 9(1), 66–80.
- Nyamongo, E. M., & Misati, R. N. (2010). *Financial development and economic growth in Kenya* (Working Paper No. WP/10/02). Kenya Institute for Public Policy Research and Analysis.
- Obiero, M., & Makori, M. (2022). Public debt and financial sector crowding out: An analysis of Kenya's Tier-1 banks. *Kenya Journal of Economic Policy*, 6(1), 35–52.
- Odhiambo, K., & Wekesa, J. (2022). Market exposure and macroeconomic risks among Kenyan commercial banks. *International Journal of Finance and Banking Research*, 8(1), 25–39.
- Okoth, L., & Simiyu, T. (2023). Interest rate risk and financial performance of commercial banks in Kenya. *Journal of Banking and Financial Services*, 11(2), 43–59.
- Ongori, P. K. (2018). Effect of macroeconomic variables on stock returns of firms listed at Nairobi Securities Exchange. *International Journal of Finance*, 3(1), 1–20.
- Otieno, M., & Kibet, J. (2022). Macroeconomic instability and financial performance of banks: Evidence from Tier-1 banks in Kenya. *Journal of Finance and Accounting*, 14(1), 20–32.
- Owino, J., & Muchiri, M. (2021). Macroeconomic variables and financial stability of commercial banks in Kenya. *African Journal of Accounting and Finance*, 6(4), 60–74.
- Roll, R. (1977). A critique of the asset pricing theory's tests Part I: On past and potential testability of the theory. *Journal of Financial Economics*, 4(2), 129–176.
- Ross, S. A. (1976). The arbitrage theory of capital asset pricing. *Journal of Economic Theory*, 13(3), 341–360.
- Sargent, T. J., & Wallace, N. (1981). Some unpleasant monetarist arithmetic. *Federal Reserve Bank of Minneapolis Quarterly Review*, 5(3), 1–17.
- Saunders, A., & Schumacher, L. (2000). The determinants of bank interest rate margins: An international study. *Journal of International Money and Finance*, 19(6), 813–832.
- Wainaina, C., & Kiragu, D. (2022). The effect of GDP growth on bank performance in Kenya. *Journal of Business and Economic Growth*, 7(2), 80–95.
- Wambua, M., & Muriuki, P. (2022). The influence of market dominance on the operational efficiency of commercial banks in Kenya. *Journal of Economics and Management Studies*, 5(3), 40–55.
- Were, M., & Muthoni, R. (2022). Market power or market efficiency? A case of Kenya's leading commercial banks. *Journal of African Business Studies*, 14(1), 23–39.