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Foreign Debt Repayment Outflow and Securities Market Volatility in Nairobi Securities Exchange, Kenya

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Abstract

The study was undertaken to assess the effects of foreign debt repayment outflow on the securities market Volatility at NSE, Kenya. The connection between foreign loan repayment outflow and stocks market volatility has not been fully examined, despite being the subject of financial studies. Regarding how foreign debt repayment influences the volatility of the securities market, global empirical research has yielded inconsistent conclusions. The findings are contradictory, which calls for additional research to be done in the current study to determine how international capital outflow affects the volatility of securities traded at Kenya's NSE. The study utilized an explanatory research methodology and used secondary data to focus on the listed institution at the Nairobi Securities Exchange in Kenya. The impact of outflows of foreign debt repayment on the volatility of the securities market over the research period was evaluated using the census technique. Nairobi All Share Index, a gauge of securities market volatility, was negatively and significantly impacted by the outflow of foreign debt repayments. It was determined that less foreign debt repayment causes the NSE equities market to be more volatile. The study recommends that Policy makers may need to consider whether to intervene in the foreign exchange market to prevent excessive currency appreciation, adjusting interest rates, implementing fiscal stimulus or introduce financial regulations to stabilize the securities market.

Keywords: *Foreign debt repayment outflow, Nairobi Securities exchange security market volatility.*

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1.0 Introduction

Capital flow volatility is a serious concern in developing and emerging economies because it threatens macroeconomic and financial stability (Pagliari & Hannan, 2017). Volatility, a fundamental topic in contemporary economics and finance, is the market's defining feature. Individual and corporate actions are affected by market volatility, which can be quantified by the rate of return of variation (Roni & Shouyang, 2020). The effects of the capital inflow on the exchange rate and stock market volatility may be dissimilar. The average path of stock returns is random, with stops at the extremes of the stock market. The deviation of stock prices from their average reveals their volatility.

If an economy isn't robust enough to service a large quantity of external debt, it may discourage domestic and foreign investment and reduce economic performance owing to crowding out effects. A country's GDP and capital formation may suffer as a result of having to pay down its debt. To augment local savings, developing countries like Kenya turn to external debt as a source of deficit financing (Francisca, 2018). Debt in the developing and emerging nations, which was already precarious, was hit hard by the Covid - 19 crises. Low interest rates, greater liquidity, foreign debt, and monetary expansion are the primary problems highlighted, and they appear to reduce risks associated with liquidity disturbances, capital outflows, and debt. Financial market speculation fueled by cheap liquidity and a lack of correlation between financial and real sector indicators have made developing and emerging economies even more susceptible to shocks (Elkhishin & Mohieldin, 2021).

Due to crowding out effects, local and international investment can be deterred if a country is unable to service a substantial amount of external debt. Debt repayment can have a negative impact on a country's gross domestic product and new capital investment. As Arisa (2020) points out, rising commodity prices and currency depreciation go hand in hand when a country increases its external debt. Francisca (2018) found that countries that prioritized paying down their foreign debt spent less on infrastructure. It's not hard to see how a country's decision to pay off its foreign debt would affect the stability of its stock market and have knock-on effects.

1.1 Statement of the Problem

Although it has been at the center of financial studies, the relationship between foreign debt repayment outflow and security volatility has not been completely analyzed. The connectivity between securities markets caused by the need for currencies and asset flows has increased portfolio risk globally (Hung, 2020). As it is relevant in portfolio evaluation, analysis, and management by financial agents in monetary policies variables, including interest rates, money supply, and exchange rates, which are alleged to be determining factors of stock market volatility (Marozva, 2020). When evaluating performance, stock market volatility is a crucial factor.

Global empirical research has produced conflicting results regarding how foreign debt repayment affects the volatility of the securities market. Studies by Agyeman, Sakyi and Abayie (2022); Okoh et al (2021); Muchimiti (2018); Arisa (2020); Francisca (2018); Muli (2018); Ampah and Kiss (2019); Agyapong and Bedjabeng (2019); Elkhishin and Mohieldin (2020) reveal considerable effects, whilst others show insignificant effects. The findings are contradictory, which calls for additional research to be done in the current study to determine how foreign debt repayment outflow affects the volatility of the securities market at the NSE in Kenya.

1.2 Research Objective

To determine the effect of foreign debt repayment outflow on securities market volatility in Nairobi securities exchange, Kenya.

1.3 Research Hypothesis

H_{01}: There is no significant effect between foreign debt repayment outflow and securities market volatility in Nairobi securities exchange, Kenya.

2.1 Theoretical Review

Myers first put up the idea of a debt overhang in 1977. A debt overhang exists when a nation's capacity to repay its foreign debt is less than the amount necessary by its commitments. If a country's public debt increases to an unsustainable level, its GDP-based ability to make its anticipated debt service payments would fall. Furthermore, the idea argues that a company's preexisting indebtedness may distort the firm's investment drive to a negative extent. Companies' ability to make optimal future investment decisions is distorted because of the necessity of making payments to creditors out of predicted earnings (Sundell & Lemdal, 2011). Foreign debt discourages investment since it transfers a portion of a company's future cash flows to a creditor in the form of promised payments (Sundell & Lemdal, 2011). Because of the greater degree of future overhang associated with short-term debt, investment incentives in the future are more uncertain, and this in turn affects investment incentives in the present.

Adedoyin et al. (2016) suggest that overhanging debt exemplifies the fact that external finance inhibits capital spending. Debt service, which includes principle and interest payments and any money owed to creditor countries, will reduce the debtor country's ability to keep more of its increased output as profit. Since high debt levels scare off investors and reduce a country's ability to prosper within its own economy, this poses a dilemma for production and investment decisions.

Shangai (2018) argues that unsustainable amounts of government debt can slow economic growth. This is due to the fact that rather than being reinvested, a sizable portion of the profits from investments are used to reduce or eliminate debt. According to the debt overhang theory, the expected debt servicing is a function of the level of output if a country's debt is forecast to grow faster than its ability to repay.

Higher debt payment costs have been found to discourage foreign investors and reduce the degree of private investment, both of which are detrimental to developing countries, making the Overhang theory important to this inquiry. The idea laid out why economically weak states may never hope to use their foreign currency surplus to escape their crushing debt burden. The value of a country's currency and its economy both suffer when its foreign reserves are depleted. The goal of this hypothesis was to look into how debt relief affects stock price volatility.

2.2 Empirical Review

To what extent do you think the COVID-19 shock will generate a debt crisis in EMDEs? Elkhishin and Mohieldin (2020) set out to investigate this question. The study provides a descriptive analysis of the factors that affect EMDEs. The study confirmed that the population had been subjected to an external source of the COVID-19 shock. A large donation of foreign money helped avert a crisis that could have significantly increased the national debt. Due to low-cost private financing, loose regulation, and unrestrained fiscal expansion, EMDEs sped up their growth pathways, increasing

the risk of debt deflation. After the improvement of monetary liquidity and the reduction of borrowing costs, corporate bonds and speculative activity both increased.

The effects of foreign direct investment and external debt on expansion in Africa's economy were studied by Agyapong and Bedjabeng (2019). From 2002 to 2015, data was collected annually from the World Bank Development Indicators and analyzed using a causal design and dynamic panel data to determine the connection between external debt, FDI, and financial development in African economies. The findings called for a more thorough budgeting process for foreign direct investment and other forms of external funding. As a Causal design may not be appropriate due to difficulties in identifying confounding factors, addressing endogeneity issues, and relying on certain assumptions, such as the absence of unobserved confounders or temporal ordering of variables, a descriptive design was used to provide a comprehensive understanding and analyze multiple variables without manipulating them.

Okoh et al. (2021) examined Nigeria's (Nigeria's) external debt and currency rate movements over the course of three decades (1990-2017). The study looked at data from the years 1990 to 2017. Our analysis, which made use of dynamic ordinary least square and Granger causality, revealed a weak relationship between currency appreciation and external debt but a robust one between interest and principal payments. The research was carried out in a range of settings. The country of Kenya has been selected as the study's site. Because of its superior flexibility and robustness in handling time series data in the face of individual heterogeneity, endogeneity, cross-sectional dependence, and spurious regression, a panel regression model is used in this work instead of a difference-in-differences (DILS) model.

Agyeman, Sakyi and Abayie (2022) selected a few SSA countries to analyze the correlation between external debt and GDP growth. The years 2000-2015 were analyzed using an improved endogenous economic growth model. Capital flight and foreign debt were both found to have negative and statistically significant effects on economic growth. In addition, marginal effects demonstrated a moderate outflow of capital that did not considerably offset the depressing impact of external debt on GDP growth. When there is a high rate of capital flight, however, the negative consequences of external debt on economic growth are amplified. Therefore, it was determined that preventing capital flight from SSA nations should be a priority in the promotion of debt management. Since using an enhanced endogenous economic growth model introduces endogeneity issues, which in turn lead to biased parameter estimates that undermine the validity of causal interpretations, the present study employs a panel regression model that employs fixed effects estimators to deal with these problems.

The effects of foreign debt and capital flight on economic policy in heavily indebted developing nations in sub-Saharan Africa were explored by Ampah and Kiss (2019). The efficiency of regional monetary and fiscal policy has been hampered, according to empirical evidence from a panel adjusted standard Error regression model for 1990-2015. The continent has been stalled by capital flight and mounting external debt, which have reduced the available resources for domestic investment. There has been a request for additional action to be taken in response to the problems of foreign debt and capital flight because of the importance of domestic private investment to economic growth both in the short and long terms.

To examine the connection between eliminating external debt and maintaining a positive account balance, Muli (2018) employed a non-experimental study approach based on the Vector error correction model (VECM). Results show that servicing Kenya's external debt has significantly

impacted the country's current account deficit. The Kenyan government was urged to develop and implement a debt management strategy for the country's medium-term future in the report. Despite using VECM, which necessitates selecting the right lag duration, error term correction term, and the number of cointegrating vectors, the study did not investigate the impact of foreign loan repayment outflow on volatility in the securities market.

3.0 Methodology

Research Philosophy

Philosophical approaches such as positivism, realism, interpretivism, and pragmatism are all viable options in the realm of academic inquiry. These philosophical approaches may or may not be applicable for the research at hand. This research is consistent with the positivist approach, which aims to build on previously established theory in order to generate hypotheses that may then be verified and confirmed, partially confirmed, or disproved to inform the development of better hypotheses for future experiments. Knowledge, according to positivist thought, is based on hard data and objective reality, rather than on theoretical constructs or personal valuations (Alakwe, 2017).

Since the goal of this research was to determine whether or not foreign capital outflow affects security volatility on the Nairobi Securities Exchange, Positivism is a suitable philosophical framework through which to conduct the study. According to Saunders, Lewis and Thornhill (2019), positivism promotes for the researcher to observe social occurrences in order to collect data from which hypotheses can be formed and links can be established. In addition, positivists draw from preexisting theoretical frameworks to generate research hypotheses (Creswell & Creswell, 2017). To determine how foreign debt repayment outflow affected volatility on the NSE, Kenya stock market.

Research Design

A research design is a concept that focuses on techniques of gathering evidence and is a plan for gathering data that may be utilized to answer a research question (Mukherjee, 2017). The study used an explanatory research approach to assess the causal relationship between outflows of foreign debt repayment and market volatility for securities at the NSE. According to (Saunders, Lewis & Thornhill, 2019), the explanatory research design is the best type for studies that examine causal relationships between study variables.

Target Population

All 63 of the NSEs' listed companies during a 16-year period beginning in 2006 and ending in 2021 comprised the study's target population (NSE, 2021). The listed companies were in 12 different industrial sectors, including banking, real estate investment trusts, construction & allied, insurance, and exchange traded funds. They also were in the agricultural, manufacturing & allied, commercial & services, and investment sectors. Due to their frequent trading at the NSE and the fact that this was a time of stock market reform and significant expansion for the Kenyan stocks market, this group of people was an ideal target for the study.

Sample and Sampling Procedures

The sample data covered a 16-year period from 2006 to 2021. To investigate the connection between global capital flight and stock market volatility. Census technique was used to evaluate how foreign direct investment outflow impacts stocks market volatility across the research period

due to the availability and dependability of the data. A census design helps to increase data quality and minimize sampling error because every unit is investigated before making conclusions (Nkuru, 2017).

Data Collection Procedures

In this investigation, secondary data sources were used. In addition to visiting the institutions' websites, data for a 16-year research from 37 international institutions was gathered via audited financial accounts. The data obtained from the financial accounts was given preference because they were made available for public use. Anyone has access to data from publicly available financial reports since information is already in the public domain (Greener, 2008).

4.0 Findings and Discussion

4.1 Descriptive Analysis

The data were transformed into natural logs to mitigate the effects of heteroscedasticity and dispersion and to enable the establishment of elasticity relationships. Descriptive statistics on the study's main variables are summarized in Table 1.

Table 1: Descriptive Statistics Results

	LN_SMV	***LN_FDRO***
Mean	4.835038	19.33569
Median	4.958470	19.33938
Maximum	5.135176	20.66958
Minimum	4.181554	18.36768
Std. Dev.	0.281587	0.774779
Skewness	-0.993243	0.227526
Kurtosis	2.676073	1.765573
Jarque-Bera	64.47927	27.54988
Probability	0.000000	0.000001
Sum	1846.984	7386.232
Sum Sq. Dev.	30.20992	228.7074

The variables in the model were abbreviated as follows; LN_ refers to natural log of a variables, hence LN_SMV is the natural log of Securities market volatility, LN_FDRO is the natural log of foreign debt repayment outflow.

Foreign debt repayment outflows had a mean of 19.34 and a standard deviation of 0.77 signifying that it was also not volatile but stable. The probability value was 0.0000 which is significant at 10 percent level of significance and a Jarque- Bera value of 27.55 which is far from zero, both signifying that foreign debt repayment outflows was not normally distributed.

4.2 Correlation Analysis

This section presents correlation analysis results as shown in Table 2.

Table *2:* Correlation Analysis Results

Correlation	***LN_SMV***	***LN_FDRO***
LN_SMV	1.000000	
LN_FDRO	0.744830	1.000000

The positive correlation value of 0.74 between stock market volatility and payments on foreign debt indicates a link between the two variables.

Tests at Intercept and Level I (0)

In the study, four panel root tests were used, Levin, Lin and Chu (LLC), Im, Peseran and Shin W-stat, ADF-Fisher Chi-Square and PP-Fisher Chi-square were applied to ensure that no variable exceeded the I (1) order of integration, which would result in inconsistent estimations.; These tests took into consideration the heterogeneity in the autoregressive coefficient, which was expected to shift freely throughout the study states, but they were based on the presumption that all series were non-stationary under the null hypothesis. The results of this investigation were interpreted using the Levin Lin and Chu t statistic as it provided the most comprehensive account of all the pooled variables and included a trend, a lag and a constant Chang (2004). This study made a number of assumptions on the reliability and measurement of the variables. In panel data designs, it is frequently assumed that each entity has unique traits that may or may not have an impact on the independent variables. The study used the Hausman test to resolve this and choose the best model for this investigation.

Securities Market Volatility I (0)

The Levin, Lin and Chu t-statistic for Securities market volatility at level I (0) had a probability value of 0.0000 which is significant at 5 percent level of significance. LN_SMV, the natural log of SMV was found to be stationary. This means that the null hypothesis that Securities market volatility has a unit root is rejected.

Table 3: Panel unit root test - Securities market volatility I (0)

Method	*Statistic*	*Prob.***	*Cross-sections*
*Levin, Lin & Chu t**	*-10.7324*	*0.0000*	*37*
Im, Pesaran and Shin W-stat	*-6.37808*	*0.0000*	*37*
ADF - Fisher Chi-square	*156.979*	*0.0000*	*37*
PP - Fisher Chi-square	*276.030*	*0.0000*	*37*

Source: Study data (2023)

Foreign Debt Repayment Outflows I (0)

The Levin, Lin and Chu t-statistic for foreign debt repayment outflows at level I (0) had a probability value of 0.0688 which is insignificant at 5 percent level of significance. LN_FDRO, the natural log of FDIO was found not stationary. This means that the null hypothesis that foreign debt repayment outflows has a unit root is accepted.

Table 4: Panel unit root test - Foreign debt repayment outflows I (0)

Method	*Statistic*	*Prob.***	*Cross-sections*
*Levin, Lin & Chu t**	*-1.48510*	*0.0688*	*37*
Im, Pesaran and Shin W-stat	*4.94783*	*1.0000*	*37*
ADF - Fisher Chi-square	*15.6889*	*1.0000*	*37*
PP - Fisher Chi-square	*11.8626*	*1.0000*	*37*

Source: Study data (2023)

Foreign debt repayment outflows I (1)

The Levin, Lin and Chu t-statistic for foreign debt repayment outflows at first difference (DFDIO) had a probability value of 0.0000 which is significant at 5 percent level of significance. This means that the null hypothesis that foreign debt repayment outflows has a unit root is rejected.

Table 5: Panel unit root test - Foreign debt repayment outflows I (1)

Method	*Statistic*	*Prob.***	*Cross-sections*
*Levin, Lin & Chu t**	*-27.8413*	*0.0000*	*37*
Im, Pesaran and Shin W-stat	*-20.2927*	*0.0000*	*37*
ADF - Fisher Chi-square	*440.054*	*0.0000*	*37*
PP - Fisher Chi-square	*505.886*	*0.0000*	*37*

Securities market volatility I (1)

At the 5% level of significance, the Levin, Lin, and Chu t-statistic for first-differential volatility in the securities market (DSMC) was 0.0000. As a result, the assumption that the stock market's volatility has a unit root is rejected.

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Table 6: Panel unit root test - Securities market volatility I (1)

Method	*Statistic*	*Prob.***	*Cross-sections*
*Levin, Lin & Chu t**	*-23.7815*	*0.0000*	*37*
Im, Pesaran and Shin W-stat	*-17.3234*	*0.0000*	*37*
ADF - Fisher Chi-square	*378.556*	*0.0000*	*37*
PP - Fisher Chi-square	*447.319*	*0.0000*	*37*

4.3 Panel Regression Analysis

The major goal of this study was to examine the impact of foreign direct investment outflow on the volatility of the NSE market; the model is given as;

$SMV_{it} = \beta_0 + \beta_1 FDRO_{It} + \mu_{it}$

Where;

i=Multinational firms (1…37) t= time (2006-2021)

β_0 = Constant or intercept

SMV_{it} = Securities Market Volatility at year t

$FDRO_{It}$= Foreign debt repayment outflow at year t

β_1 = Coefficient

The study sought to determine the effect of foreign debt repayment outflow on securities market volatility in Nairobi securities exchange, Kenya. The hypothesis sought to determine whether foreign debt repayment outflow has a statistically significant effect on the securities market volatility at the Nairobi securities exchange. The null hypothesis given as;

H_{02}: There is no significant effect between foreign debt repayments outflow on securities market volatility in Nairobi securities exchange, Kenya.

The results in table 6 discovered that, at a 5 percent level of relevance, foreign debt repayment outflow had a detrimental and significant impact on Security Market volatility. According to this, the volatility of the stock market would rise by 1% when foreign loan repayment outflow decreased by 0.18 percent. Therefore, the null hypothesis that there was no significant relationship between the volatility of assets traded on Nairobi's stock exchange and the outflow of foreign debt was rejected.

As there is less demand for foreign currency to cover debts, a decrease in FDRO indicates that the government is spending less on servicing its international debt. This could result in a stronger local currency. A stronger currency may increase the cost of exports while lowering the cost of imports, thus influencing trade balances. As the volatility of the securities market rises, investors become more risk-averse and cautious. They might withdraw money from the stock market, which would lower stock prices and have a negative wealth effect while also lowering consumer spending.

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Table 7: Panel Estimation equation; Effects of Foreign debt repayment Outflow on securities market volatility

Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
D_FDRO	*-0.176759*	*0.021605*	*-8.181593*	*0.0000*
C	*0.061026*	*0.019009*	*3.210331*	*0.0014*

Foreign debt repayments outflows had a coefficient of -0.18 and a probability value of 0.0000 which is significant at 5 percent level of significance. This means that when foreign debt repayment outflows is reduced by 0.18 percent then Securities market volatility increased by 1 percent.

This implied that FDRO had a negative but a significant relationship, this demonstrates that there exists a negative relationship between FDRO and securities market volatility, we therefore reject the null hypothesis that there was no significant effect between foreign debt repayment outflows on securities volatility in Nairobi securities exchange in Kenya.

The result is consistent with the findings of Muli (2018), who used a non-experimental research approach and the Vector error correction model (VECM) to analyze external debt servicing and account status. The analysis discovered a sizable detrimental impact of external debt service on Kenya's current account balance. The research advised Kenya's government to develop and implement policies for managing its external debt as well as a medium-term debt strategy.

The results refute the claim made by Agyapong and Bedjabeng (2019), whose findings suggested that external debt, foreign direct investment, and financial development in African economies were significantly positively correlated. The report suggested that policies be created to encourage foreign direct investment and that foreign direct investment budgets be prepared carefully.

An economy's inability to handle the pressure of servicing a sizable quantity of external debt can discourage both domestic and foreign investment as well as have a negative effect on economic performance owing to crowding out effects. The capital formation and GDP of a nation may suffer as a result of debt repayment. It is also obvious that higher foreign debt causes commodity price inflation, which devalues a nation's currency (Arisa, 2020). According to a study by Francisca (2018), the country's fixed capital formation was negatively impacted by the repayment of its external debt.

This finding further contradicts the theory of debt overhang, which contends that debt payback values rise with debt stock up to a point beyond which additional debt lowers investment returns. The relationship between debt overhang and foreign debt repayment outflow is therefore a vicious cycle, a high level of debt leads to limited investment and growth which in turn makes it harder for the country to generate sufficient income to service its debt obligations, forcing it to prioritize debt repayment over other priorities (Adedoyin et al., 2016). Additionally, the theory points out that outstanding debts may distort the firm's investments incentive downwards. Debts distorts the possibilities for companies to make optimal future investments decisions as it induces a behavior where positive net present value projects do not get undertaken due to the fact that parts of future earnings from projects goes to creditors in the form of promised payments, (Sundell & Lemdal, 2011).

According to Adedoyin et al. (2016), the debt overhang underlines how having foreign debts has a detrimental impact on investment. An increase in production that partially pays for the debt, which includes interest payments, repayments, and money sent to the creditor country, prevents the debtor country from reaping the full benefits of the increase. Investors lose faith in a country's ability to repay loans when there is a substantial outflow of foreign funds for debt repayment. This could also result in a downturn in the market for securities, which would exacerbate volatility. The government can keep its debt ceiling and reconsider its austerity measures as this can result in a decline in economic growth and a drop in gross domestic product, according to the study's positive and substantial association.

5.0 Conclusion

The second goal was to ascertain the impact of foreign debt repayment outflow on the volatility of the Nairobi Securities Exchange (Kenya) securities market. The research discovered that, at a 5 percent level of relevance, FDRO had a detrimental and significant impact on SMV. According to this, the volatility of the stock market would rise by 1% when foreign loan repayment outflow decreased by 0.18 percent. Therefore, the null hypothesis that there was no significant relationship between the volatility of assets traded on Nairobi's stock exchange and the outflow of foreign debt was rejected. As there is less demand for foreign currency to cover debts, a decrease in FDRO indicates that the government is spending less on servicing its international debt. This could result in a stronger local currency. A stronger currency may increase the cost of exports while lowering the cost of imports, thus influencing trade balances. Investor caution and risk aversion may increase as market volatility rises. They might withdraw money from the stock market, which would lower stock prices and have a negative wealth effect while also lowering consumer spending.

6.0 Recommendations

As there is less demand for foreign currency to cover debts, a decrease in FDRO indicates that the government is spending less on servicing its international debt. This could result in a stronger local currency. A stronger currency may increase the cost of exports while lowering the cost of imports, thus influencing trade balances. Investor caution and risk aversion may increase as market volatility rises. They might withdraw money from the stock market, which would lower stock prices and have a negative wealth effect while also lowering consumer spending. To avoid an excessive currency appreciation, policymakers may need to decide whether to intervene in the foreign exchange market. In response to these modifications, the government and central bank may take a variety of policy measures, such as stabilizing the securities market, they may modify interest rates, deploy fiscal stimulus, or enact financial restrictions.

Additionally, to reduce negative effects on market stability, the government and central bank may need to closely manage and monitor debt repayment flows. Increasing market instability may erode investor trust. Market instability caused by foreign loan repayment withdrawals may reduce investor confidence and stock market participation. Increased investor caution or hesitancy could affect the liquidity and efficiency of the market. To solve issues raised by the connection, they may put in place policies like capital controls, foreign exchange interventions, and macro-prudent laws.

The overall financial risk related to the economy may decrease as a result of the reduction in FDRO. Managers should evaluate how this affects their exposure to interest and foreign exchange risk. They can think about modifying their risk management plans accordingly. Investors may face

both possibilities and risks as a result of rising market volatility. The allocation tactics used by investment portfolio managers may need to be revised to account for the increased volatility. To limit potential losses, they might also look into other investments or hedging techniques. Due to the heightened volatility of the securities market, managers may think about introducing hedging methods to guard against negative market moves. To reduce prospective losses, this may involve using options, futures, or other derivative instruments. Effective stakeholder communication is essential during periods of market turbulence. To preserve trust in their firms, managers should be ready to give transparent and timely information to employees, investors, and other relevant stakeholders.

Based on the primary research studies, it was shown that when foreign loan repayment outflow is decreased, securities market volatility is raised. Given the state of the economy and the government's decision to raise the debt ceiling to Ksh 10 trillion, increasing borrowing may prevent the government from being able to pay off its future debt commitments. The causes of the large negative impact of FDRO to the volatility of the securities market must be determined. Therefore, future research should concentrate on the causes of negative substantial impacts that are moderated by the foreign currency rate and may also incorporate other moderating and mediating variables not employed in this study, such as inflation and market risk for comparison purposes.

The study is limited to 16 years, from 2006 to 2021 and the data was analyzed on yearly basis. The period relays to the pre and post global financial crisis. The post global financial crisis period is characterized by volatility of financial outflows as compared to pre global financial crisis which relates to long run dynamics of NSE. Consequently, future studies can be done for the same periods with frequent observations, weekly, monthly and quarterly basis to capture short run dynamics of the securities market for comparison purposes using modern technology for analysis.

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