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ABSTRACT

Foreign Direct Investment serves as a crucial connection between developing and industrial nations. Kenya is constrained with drawing and maintaining Foreign Direct Investment (FDI) at optimal rates which can unlock the full potential of associated capital inflows and harness the benefits of global integration and technology transfer. Despite the widely acknowledged significance of FDI, the country struggles to cultivate an environment conducive to optimal FDI inflow. This deficiency not only hampers domestic investment opportunities but also significantly impedes the realisation of robust economic growth. The study's main objective was to assess the impact of external debt on foreign direct investment in Kenya for the period 2002-2021. Descriptive, correlation and causal research designs were adopted using yearly time series data. The results revealed that tax incentives (t=4.811738, p<0.05) and government recurrent expenditure (t=2.402518, p<0.05) had a positive significant effect on FDI Inflow while government external debt (t=-3154145, p<0.05) had a negative effect on FDI inflow in Kenya. To enhance the inflow of Foreign Direct Investment (FDI), the research suggested that policymakers should responsibly prioritize strategies to manage and reduce external debt burdens.

Keywords: *Foreign Direct Investment Inflow, External Debt*

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INTRODUCTION

Foreign direct investment benefits both host nations and multinational firms. It delivers more financial resources to the host countries via taxation and investment Emako et al (2022). In addition to creating jobs, foreign investment has knock-on effects like the transfer of technology, management expertise, skill sets and corporate governance standards (Vann, 2021). Multinational corporations and other organizations simultaneously acquire access to low-cost labour, natural resources peculiar to a certain location, markets, and the chance to profit from bilateral and multilateral trade policy (Velde, 2019).

Global foreign direct investment rose to Ksh 239.76 trillion ($ 1.582) in 2021, significantly surpassing Ksh 215.97 trillion ($1.425) inflows in the pre-crisis period 2005-2007 and Ksh 31,068.69 billion ($ 205 billion,) in 1990 (UNCTAD, 2022). According to the UNCTAD (2021), global FDI inflows declined by 35% in 2020, reaching Ksh 151.55 trillion ($1 trillion), significantly impacted by the COVID-19 pandemic. In Africa, FDI inflows soared to Ksh12.45 Trillion ($83 billion) in 2021, marking a substantial jump from the Ksh 5.85 Trillion ($39 billion) recorded in 2020 (UNCTAD, 2022).

The Sub-Saharan region experienced a notably faster growth rate in external debt in 2018 compared to other regions. Aggregate external borrowing surged by 15.5 percent between 2018 and 2019, surpassing the 10.2 percent growth observed in low- and middle-income regions during the same period. Some countries within the region saw even more substantial increases. Between 2010 and 2018, Ethiopia, Cameroon, Rwanda, Zambia, and Uganda witnessed external debt spikes exceeding 200 percent. Ghana, Kenya, and Liberia also recorded increases of over 140 percent in their external debt levels (IMF, 2018).

Kenya continues to see relatively little foreign investment given the size of its economy and degree of development (Odhiambo, 2022). Nonetheless, Kenya remains one of Africa's leading recipients of FDI. According to UNCTAD 2022, FDI flows to Kenya fell to Ksh 67,896.46 million ($452 million) in 2021 from Ksh 108,664.65 million ($724.431 million) in 2020, the lowest amount in the prior five years. During the same year, total FDI stock stood at Ksh 1,576.17 billion ($10.506 billion), amounting to only 9.5% of the country's gross domestic product.

As stated in the 2020 Economic Survey, the total public debt of the country has exhibited a consistent upward trajectory, largely attributed to extensive borrowing for infrastructure development and budgetary support. This increasing debt burden has raised concerns about fiscal sustainability and macroeconomic stability, potentially influencing foreign investors' perceptions (World Bank, 2020). Notably, as Kenya's debt levels have risen, there has been a need for higher revenue generation, leading to adjustments in tax policies (Kenya Revenue Authority, 2021). Such shifts impact FDI by altering the overall business environment. While certain levels of borrowing can be conducive to growth, excessive debt can deter FDI due to increased risk perceptions and potential macroeconomic vulnerabilities (International Monetary Fund, 2019). This situation highlights the intricate relationship between external debt and FDI, underscoring the necessity of maintaining a balance between funding for development and economic stability to ensure sustained foreign investment inflows.

LITERATURE REVIEW

The study was guided by Paul Krugman's theory of debt overhang (1988), which states that a country experiences adverse economic consequences when its government accumulates high levels of external debt. Debt overhang occurs when the existing external debt becomes excessively large, leading to low foreign direct investment inflow and hindering the growth of the economy. It posits that overseas investments get deterred from investing in heavily indebted countries because they anticipate that a large amount of their income would go towards reducing the debt burden through high taxes. A significant amount of external debt burden is believed to create a disincentive for investment,

both domestic and foreign, resulting in slower economic development. Krugman suggests that addressing and reducing the debt burden can improve the investment climate, attract capital, and minimize the risk of debt default, ultimately fostering economic growth. This study discovered that this idea was relevant in pointing out that external debt impacts both overall economic growth and foreign direct investment. The study sought to investigate how external debt affects FDI inflow in Kenya and thus used tenets of this theory in forecasting the outcome of the results.

Studies that have examined the nexus between external debt and foreign direct investment inflow had conflicting conclusions. Julie (2018) examined the effect of public debt on foreign direct investment inflows in Kenya from 2008 to 2017 and the findings indicated that, on their own, public debt, interest rates, economic growth, exchange rates, and inflation rates do not significantly determine FDI inflows in Kenya.

Ngelechey (2015) studied the relationship between government debt and foreign direct investment in Kenya from 2000 to 2014. The study's results revealed that Public debt had a significant positive relationship on FDI. Muinga (2014) examined the relationship between external public indebtedness and economic growth in Kenya. The results indicate that external debt and interest payments on external debt payments contribute negatively to economic growth in Kenya. Wabwalaba (2017) conducted a study to find the impact of government debt on FDI inflows into Kenya. The results revealed that individually, public debt, economic growth, exchange rates and inflation rates are not significant determiners of FDI inflows in Kenya. Ostadi and Ashja (2014) investigated the effect of external debt service on FDI in Development cooperation among 8 Developing Countries. The coefficients of external debt service and government size were revealed to be negative and significant.

In reviewing the empirical literature, it is clear that there are differing opinions and findings on the relationship between external debt and FDI. While some studies suggest positive correlations, others highlight the importance of contextual factors and sector-specific considerations.

Therefore, the research aimed to contribute to this field of knowledge by critically evaluating the existing literature, addressing methodological flaws, and identifying gaps that informed the study's focus and methodology.

METHODOLOGY

Descriptive, Correlation and causal study designs were adopted for the study to establish the effect of external debt on foreign direct investment inflow in Kenya. The data for the trend in FDI inflow was derived from World Investment Reports, World Bank and IMF. External debt data was derived from the National Bureau of Statistics (KNBS). The study used yearly data from 2012 to 2021 for the variables of interest. Government External Debt was measured by External Debt as a percentage of gross domestic product (GDP), while foreign direct investment inflow was measured by growth rates.

Econometric Model Specification

Data was collected, cleaned, and sorted using an Excel spreadsheet and analyzed using EViews software version 10. A multiple regression analysis was employed in testing the hypothesized relationship between external debt and foreign direct investment inflow.

The following regression model was employed;

$$FDI_t = \beta 0+\beta 1TAX_t+\beta 2REX_{t2}+\beta 3EXTA_{t3}+\mu$$

Where: FDI = Foreign direct investment inflow, REX = Recurrent expenditure, EXT = external Debt, t = time index, and μ= error term.

RESULTS & DISCUSSION

Descriptive Statistics

Table 1 displays the descriptive statistics for tourism sector growth measured by growth rates and recurrent expenditure measured by recurrent expenditure as a percentage of gross domestic product (GDP).

Table 1

Descriptive statistics

Variables	FDI INFLOW	EXTERNAL DEBT
Mean	534.0805	28.03
Maximum	1450	39.20
Minimum	21.21	18.80
Standard Deviation	484.4778	6.2329
Skewness	0.6511	0.2195
Kurtosis	2.1720	1.8719
Jarque Bera	1.9843	1.2212
Probability	0.3708	0.5430
Observations	20	20

FDI inflow has a mean of 534.0805 this shows that foreign investments in Kenya remain relatively weak considering the size of its economy and the development level. However, Kenya is one of Africa's largest recipients of FDI (UNCTAD, 2023). This indicates greater potential when it comes to FDI Inflow. Additionally, the mean value of External Debt (EXT) as a percentage of GDP in the country stands at 28.03%, which is slightly below the International Monetary Fund (IMF) threshold of 30%. This indicates that the country's external debt level is within a manageable range according to international standards, suggesting a relatively stable economic situation to debt sustainability (CBK, 2021)

Augmented Dickey-Fuller Unit Root Test

It is crucial to verify the presence of a unit root before performing any statistical analysis to prevent inaccurate results because most statistical models and procedures presume that the underlying data is stationary (Roza et al, 2022). This study adopted the Augmented Dickey-Fuller (ADF) test to check for unit roots.

Foreign direct investment inflow was stationary at the first difference while government External debt (EXT) was stationary at level. Table 2 displays the ADF test results.

Table 2

ADF Unit Root Test

VARIABLE	ADF Test statistic @ level	Critical Value @ 5%	ADF Test statistic @ 1st difference	Critical Value @ 5%	Integration order
FDI	-2.42002	-3.6736	-4.813883	3.040391	1st difference
EXT	-4.9933	-3.7597	-	-	Level

Regression Results

A multivariate regression analysis established the nexus between government external debt and foreign direct inflow. Table 3 displays the output of regression analysis.

Table 3

Regression Results

Dependent Variable: FDI

Method: Least Squares

Sample (adjusted): 2002-2021

Included observations: 20 after adjustments

Variable	Coefficient	Std. Error	t-statistic	Prob
DTAX	0.290502	0.060373	4.811738	0.0002
DREX	0.257703	0.107264	2.402518	0.0288
EXT	-0.338091	0.107189	-3.154145	0.0061
C	0.102659	0.033371	3.077131	0.0072
R- squared	0.735668	Mean dependent var		53.40805
Adjusted R- squared	0.686106	S.D. dependent var		48.47782
S.E. of regression	2.714347	Akaike info criterion		14.22218
Sum squared resid	1.178828	Schwarz criterion		14.42132
Log-likelihood	-13.82217	Hannan- Quinn criter.		14.26105
F- statistic	14.84333	Durbin- Watson stat		1.959410
Prob (F-statistic)	0.000070			

Table 3 indicates that the measure of goodness of fit (R^2) value of 0.686106 and the probability value of F- statistic was 0.00070< 0.05 implying the fitness and statistical significance of the regression model at a 5% level of significance. Furthermore, R^2 of 0.735668 implied that the variance in the FDI inflow was predicted by a variance of 73.57% in the explanatory variables.

The regression equation obtained from Table 3 is;

$FDI_t = 0.102659 + 0.290502TAX_{t1} + 0.25703REX_{t2} - 0.338091EXT_{t3} + \mu$

Where; FDI = Foreign Direct Investment Inflow.

TAX_t = Tax Incentives (Measured as Corporate Income tax as a percentage of total GDP).

REX_t = Recurrent expenditure as a proportion of the total GDP (measure for recurrent expenditure)

EXT_t = External Debt as a proportion of total GDP (measure for External debt in the study)

μ = the error term

t = Yearly time series

RESULTS AND DISCUSSION

External Debt has a probability value of 0.0061<0.05, hence a confirmation that it was statistically significant in explaining Foreign Direct Investment Inflow. It had a negative sign as expected, which means External Debt and Foreign Direct Investment Inflow are inversely related. Therefore, as the External Debt rises, Foreign Direct Investment Inflow is expected to decline. -0.338091 coefficient for External Debt implies that an upward unit percentage change in External Debt causes a 33.8091% decrease in Foreign Direct Investment Inflow on average Ceteris Paribus. The explanation

for this trend was that with a significant increase in external debt, it may need to allocate a larger portion of its resources to debt servicing and repayment (Omotor, 2021). This can lead to a reduction in funds available for investment in other areas, including Foreign Direct Investment. In this scenario, the increase in external debt could potentially crowd out FDI Inflow as resources are diverted to debt obligations (Azolibe, 2022).

This study was in agreement with the one by Muinga (2014), Didia & Ayokunle, (2020) who sought to study on the nexus between external debt, foreign direct investment and economic growth. The results suggested that foreign debt and interest payments on external debt payments have a detrimental impact on Kenya's economic growth.

The study was not in agreement with Julie (2018) who employed a descriptive research approach and utilized a multivariate linear regression model to examine the correlation between public debt and FDI inflow. The study employed the Vector Error Correction Model and found that on its own, public debt significantly does not affect FDI inflows in Kenya, which was a key focus of this research. The study also differed from Kiunga (2018) who sought to investigate how external government borrowing impacts the inflow of foreign direct investment in Kenya. The research found that government debt and economic growth do not independently impact FDI inflows in Kenya, unlike in this study.

Post-Estimation Diagnostic Tests

Multicollinearity Test

Table 4 indicates the Variance Inflation Factors Test output in checking for multicollinearity. Multicollinearity arises when there is substantial correlation among independent variables, leading to increased standard errors, reduced t-statistics, and elevated p-values, thereby diminishing the statistical significance of predictors within the model (Smith, 2020). The study utilized Variance Inflation Factors (VIF) as a measure to detect multicollinearity. The criterion stipulated that a VIF value below 10 indicates a lack of severe multicollinearity, necessitating no intervention. Conversely, a VIF exceeding 10 indicates a pronounced presence of multicollinearity in the model.

Table 4

Variance Inflation Factor Multicollinearity Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
DTAX	1705723	10.84181	1.039383
DREX	437.5945	10.44543	1.158498
EXT	118.5193	26.46492	1.187403
C	111302.1	30.21361	NA

Table 4 shows that the VIF values of DTAX, DREX and EXT are 1.039383, 1.158498 and 1.187403 respectively. The above VIF values were less than 10, thus implying there was no multicollinearity in the regression model.

Breusch -Godfrey Autocorrelation Test

The study employed the Breusch -Godfrey Test in checking for autocorrelation. Table 5 displays the results of the Breusch-Godfrey Test for autocorrelation.

Table 5

Breusch- Godfrey Autocorrelation Test

Breusch-Godfrey Serial Correlation LM Test:			
Null hypothesis: No serial correlation at up to 2 lags			
F-statistic	0.173146	Prob. F(2,14)	0.8428
Obs *R-squared	0.482761	Prob. Chi-Square(2)	0.7855

The results of the Breusch-Godfrey test in Table 5 indicate that the p-value of Chi-square was 0.7855>0.05, implying that the model was not affected by autocorrelation.

CUSUM Model Stability Test

Figure 1 demonstrates that all variables in the model fall within the 5% threshold, indicating the model's stability as confirmed by Zeileis (2004).

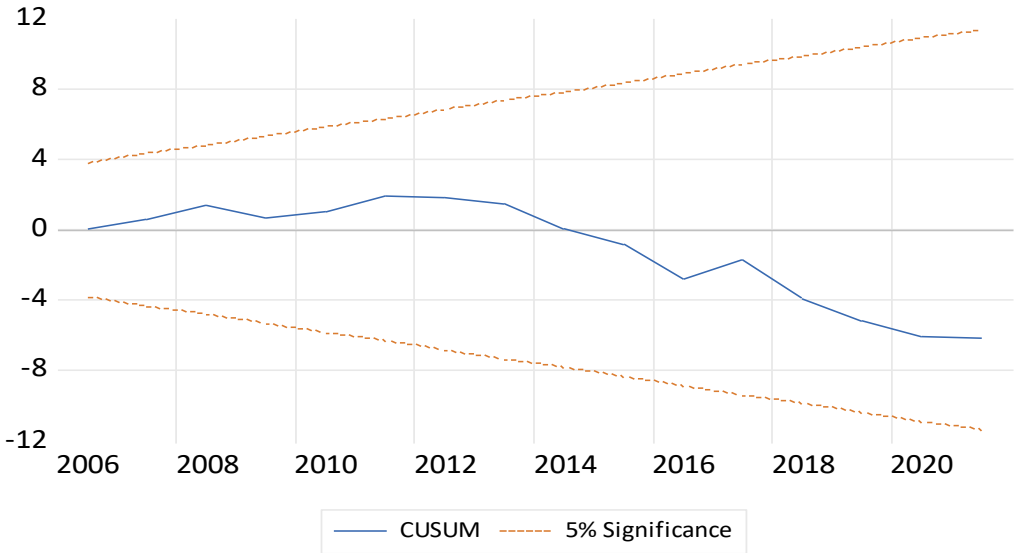

Figure 1

CUSUM Model Stability Test

CONCLUSIONS AND RECOMMENDATIONS

The study examined the relationship between government external debt and foreign direct investment inflow in Kenya, employing yearly data from 2002 to 2021. The results indicated revealed that external debt had a negatively significant effect on foreign direct investment inflow in Kenya, with a regression coefficient value of -0.338091 and a p-value of 0.0061<0.05. The study concludes that government external debt increases impacts foreign direct investment inflow negatively.

Given the significant negative effect of external debt on FDI, policymakers should prioritize strategies to manage and reduce external debt burdens responsibly. This may involve exploring alternative financing mechanisms, enhancing debt sustainability frameworks, and promoting prudent fiscal management practices to mitigate potential risks associated with high levels of external debt.

The government should strengthen the regulatory and supervisory framework for capital markets and improve the efficiency, stability, and inclusiveness of the financial sector, especially the markets for stocks, bonds, and other securities to improve capital formation and foreign direct investments (FDIs) flowing into the country.

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