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The Effect of Public Debt on Economic Growth in Kenya

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Abstract:
Using annual data from 1980 to 2019, this study examined the impact of public debt on Kenya's economic growth. Financing Gap theory served as a guide for the investigation. An explanatory research design was adopted in this study. The analysis of the long-run and short-run effects used a customized version of the Vector Error Correction Model (VECM) Model. The R-square value from the VECM model was 58.62, and the Chi-square was 26.913 (p > Chi2 = 0.0494), indicating that the VECM was suitable for parameter estimation. While external debt revealed a coefficient of 0.0003 with a p-value of 0.001 had a significant positive impact on economic growth, domestic debt reported a coefficient of -0.266 with a p-value of 0.019, supporting the debt overhang effect. If the marginal output of an available external debt is greater than or equal to the principal and interest payment, the study found that external debt had a positive impact on the economy of the borrowing country. On the other hand, domestic debt has a significant negative impact on economic growth. The government will be able to develop sound fiscal and monetary policies with the aid of the study's findings. The study demonstrates that increasing domestic debt levels in Kenya during the study period negatively and significantly impacted economic growth. As a result, this study suggests that the Kenyan government reduce domestic borrowing to avoid the crowding out effect, which has a detrimental long-term impact on economic growth. The government should use the borrowed domestic money to diversify the economy's productive base. This will boost long-term economic growth, widen the base of taxation, and increase the country's ability to pay off its obligations when they are due.

Keywords: Economic growth, External debt and internal debt

1. Background of the Study

Since independence in 1964, Kenya, an East African country, has struggled to achieve economic stability. Despite attempts from the government and central bank, the country continues to have a pattern of domestic deficits, external debt, and a slow rise in the Gross Domestic Product (GDP). Due to this slow development pattern, insufficient domestic reserves, and global economic conditions, Kenya has been unable to pay back its external debt, maintain and expand its domestic infrastructure, and fully fund its government-sponsored social programs (Yusuf & Mohd, 2021).

According to Yusuf and Mohd (2021), one of the key macroeconomic factors that shape a country's reputation on the global market is public debt. It is one of the factors that affect the flow of inbound foreign direct investment. Additionally, because governments borrow money primarily through the issuance of securities, the duration, interest rates, and overall cost of debt financing have a substantial impact on the economy, the future of businesses, and the social welfare of both the present and the generations to come.

Macroeconomic variables are estimations or primary assessments of current economic growth. Some of the major drivers, such as domestic debt and external debt, have been included in the study. For effective macroeconomic management, the state must do research, assess, and comprehend the key aspects influencing the current status of macroeconomics. Therefore, the government must be aware of the causes and timing of recessions and inflation and foresee these developments, as well as the combination of policies that will best prevent any financial woes (Matundura Erickson & Serem).

According to Yusuf and Mohd (2021), governments borrow when their spending exceeds their revenue. Thus, public debt is a crucial tool for governments to finance public spending, especially when it is challenging to raise taxes and cut spending. This method has resulted in the majority of countries having enormous unpaid debts over time. The secret to accelerating economic growth is to take on reasonable debt to pay for infrastructure and public projects. However, excessive borrowing without proper planning for investments can result in a high debt burden and interest payments, which can have a number of negative repercussions on the economy.

High public debt is also a major problem for nations with weak economic structures since it can lead to uncertainty and slow economic progress. Investors are particularly concerned about high debt-to-GDP ratios since they might have a negative impact on the stock market and over time limit employment and productive investment. Therefore,

while public debt may be an economic stimulant, when it reaches very high levels, a sizeable amount of government spending and foreign exchange gains will go into servicing and repaying the debt, which will have a significant impact on future generations.

1.1. Economic Growth and Public Debt in Kenya

By issuing Treasury bills and Treasury bonds in accordance with the Internal Loans Act, the Cabinet Secretary to the National Treasury is legally permitted to borrow money from the internal market on behalf of the government (Cap 420). The government overdraft at the Central Bank of Kenya appears to be the sole aspect of domestic debt borrowing that is subject to legal restrictions. It appears that there are no legal restrictions on domestic borrowing. This is separate from borrowing money from outside, which is prohibited by Kenyan law's External Loans and Credit Act, CAP 422.

It was acknowledged that there was evidence of a highly increased level of debt having a negative impact on economic progress during the first United Nations Progress Decade. By the 1970s, developing countries had no trouble achieving the minimum requirement of 5% annual GDP growth. However, nearly half of official foreign exchange inflows went toward repaying the debt to state lenders. Governments found it extremely challenging to service their debt during this time period, which forced them to postpone it. The world's poorest and developing nations are impacted by factors such as ongoing cuts to official aid, increased amounts of multilateral aid, particularly in sub-Saharan Africa, and a rapid increase in private sector liquidity due to the Eurodollar market expansion (Osewe, 2017).

Kenya had a steady decline in development aid during the 1990s, coinciding with the collapse of the Soviet Union due to views of poor governance and the misappropriation of public resources. Kenya thus went through a debt crisis in the early 1990s, which left the government with a high level of debt. The debt problem was worsened by macroeconomic mismanagement in the 1990s, such as the Goldenberg scam, which duped Kenyans of billions of shillings and reduced donor contributions. The government occasionally rescheduled its debt and employed expensive short-term domestic borrowing to cover its expenses (Mutuku, 2016)

Kenya's debt has grown over the last 10 years; it is currently 64.2 percent of GDP. On the other hand, debt servicing has been continuously high despite a low GDP growth rate.

1.2. Statement Problem

Over the past few decades, the variables influencing economic growth in developing nations have been a subject of ongoing discussion. Economists have claimed that debt is one of the variables that contribute to economic growth in emerging countries of Africa. These research findings have produced a variety of conclusions, and it has been determined that each country's experience with debt and economic growth is unique.

The goal of this inquiry is to ascertain whether the slow rate of economic growth in Kenya has been influenced by macroeconomic factors. Many intellectuals have looked into how macroeconomic factors like unemployment rates, inflation rates, and percentage rates of interest affect economic development and growth. However, none of the studies that have been done have focused on the overall effects of inflation rates, foreign exchange rates, foreign debt, and domestic debt and how they affect economic growth.

Many studies looked at the macroeconomic factors separately in relation to economic growth, and even when these studies looked at an aggregate of these factors, some of them failed to include all the factors that were relevant to their particular studies. This study aimed to analyze the short- and long-term effects of external debt, domestic debt, foreign exchange rates, and inflation rates on economic growth in Kenya. Similar to studies done in Kenya on the exchange rate, this study focused on its effect on variables such as exports and the balance of payment by using the Error Correction Model.

1.3. Specific Objectives

The study was guided by the following specific objectives:
- To establish the influence of external debt on economic growth in Kenya
- To examine the influence of domestic debt on economic growth in Kenya.

1.4. Research Hypotheses

The study sought to test the following research hypotheses:
- H_{01}: External debt does not have a significant influence on economic growth in Kenya.
- H_{02}: Domestic debt does not have a significant influence on economic growth in Kenya.

1.5. Significance of the Study

With the overall goal of influencing the level of economic activity and managing public debt, the study will be crucial to the Government, in particular the Ministry of National Treasury. The significance of this study for bond market investors is that it will educate them on the elements that influence the floating of government bonds and how it impacts the nation's economic growth.

2. Literature Review

2.1. Financing Gap Theory

Developed nations are now plagued by the idea of a financing shortfall, which has enormously encouraged so-called foreign borrowing. The financing gap is the difference between the amount of money that can be raised domestically

and the total amount of investment needed; borrowing money from abroad is one way to close this gap. Following the work of Rostow (1960), The Stages of Economic Growth, which asserted that any country must pass through a number of stages to develop, the Theory of Financing Gap became widely accepted in the 1960s. Further, according to Rostow, there is an inverse relationship between investment and economic growth and development, and the necessary condition is that investment must increase by 5% to 10% of income. This means that if a developing country lacks sufficient domestic capital for investment, it must make up the difference through external debt or international assistance. The theory explains domestic borrowing without affecting the level of investment by the private sector, which may cause a crowding-out effect.

2.2. Empirical Review

Evidence from developing countries, Sub-Saharan Africa (SSA) in particular, indicates that one of the causes of low economic performance and difficulties experienced by these countries is large debt service payments due to huge external debt stock (Babu *et al.*, 2014). They concluded that SSA countries are vulnerable to huge foreign loans, not just to the saving gap but also to the foreign exchange gap, due to a reduction in exports. Similar findings were reported by Mbah, Agu, and Umunna (2016), who argued that external debt size relative to the size of the economy is huge in most developing countries. Apart from triggering capital flight, it also dampens private investment.

A study by Reinhart and Rogoff (2010) found no relationship between external debt stock and the performance of education and agricultural sectors in both developing and developed countries. This study held that public debt of 90 percent of the GDP has no strong effect, but when the debt surpasses this mark, sectoral performance and hence, GDP is reduced by 1 percent. Conflicting findings were reported by Panizza and Presbitero (2012), who discovered that there was a negative relationship between economic performance and debt burden. This study applied an instrumental variable (IV) model to the Organization for Economic Corporation and Development (OECD). The reason for IV was that changes in the exchange rate in the presence of foreign currency cause a direct and mechanical effect on the ratio between debt and GDP. Kumar and Woo (2010) conducted a study to examine the impact of external debts on the growth of the economy in both developing and developed countries. Ordinary Least Square (OLS), fixed effect, and dynamic panel regressions were used. The findings indicated that debt growth affects economic growth negatively. The study established that a 10 percent additional debt reduces the growth of the economy by 0.2 percent per annum. Further, the authors revealed that a negative and statistically significant link was established when the debt was more than 90 percent of GDP and that the effect was common among countries with low productivity, low investment, and low stock of capital. Moreover, the debt effect seemed to be more pronounced in developing countries than in advanced economies.
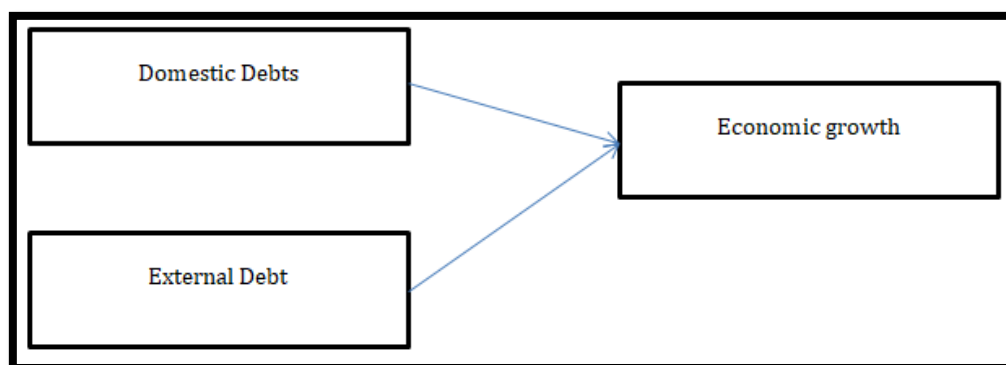

Figure 1: Conceptual Framework
Source: Author (2021)

3. Research Methodology

This study used an explanatory research design which is time series in nature. It is time series as it involves repeated measures of a given entity (Kenya in this case) that are taken at evenly spaced intervals over time which, in this case, is yearly. Explanatory research, also known as causal research design, is typically carried out to determine the degree and type of cause-and-effect interactions (Adrian *et al.*, 2010).

3.1. Model Specification

The Vector Error Correction (VEC) Model was tailored to examine the association between macroeconomic variables and Kenyan economic growth. The primary difference between the VEC and VAR models is that the VEC model requires co-integration of the series, whereas the VAR model does not.

The VECM model is written as follows:

$$\Delta X_t = \alpha\beta X_{t-1} + \Gamma_1\Delta X_{t-1} + \Gamma_2\Delta X_{t-2} + \Gamma_3\Delta X_{t-3} + \cdots \Gamma_p\Delta X_{t-p} + \varepsilon_t \dots\dots\dots\dots3.17$$

Where:
α= is the co-efficient of the adjustment's matrix,
β = is co-integrating equations matrix coefficients
Γ= is short-run coefficients
X_t = model endogenous variables.

3.2. Description, Measurement, and Source of Variables

Description	Description	Measurement	Source
External Debt	The total debt owed to the residents of a country to foreign creditors	Measured in US Dollars	International Debt Statistics of World Bank Database and Kenya's Annual Public Debt Management Reports
Domestic Debt	Domestic debt is part of government debt that is to lenders within the country	Measured in US Dollars	International Debt Statistics of World Bank Database and Central Bank of Kenya
Economic Growth	Economic growth is defined as the annual percentage change in Gross Domestic Product (GDP)	Measured in percentage	International Debt Statistics of World Bank Database

Table 1: Description, Measurement, and Source of Variables
Source: Author (2021)

3.3. Unit Root Tests

Time series data exhibits trending or non-stationarity at the mean by utilizing such data without eliminating the unit root results in erroneous regression. Non-stationarity in time series data means that the variance, covariance, and mean are not constant. It means that the results can only be analyzed for the period under discussion and cannot be extrapolated to other time periods. A stochastic trend with a random walk is referred to as a unit root in time (Otieno *et al.*, 2022).

3.3.1. Philips Perron Test

According to Daw & Hatfield (2018), performing regression analysis with OLS may result in a serial correlation problem. Phillips and Perron (1988) proposed two alternative statistics. Phillips and Perron's test statistics are Dickey-Fuller statistics that have been adjusted to serial correlation non-parametrically by modifying the Dickey-Fuller test statistics using the heteroscedasticity and autocorrelation-consistent covariance matrix estimator proposed by Wang and Wu (2012). To address the issue of serial correlation, the regression of the Augmented Dickey-Fuller test includes lags of the initial differences of:

$$\Delta Y_t = \emptyset Y_{t-1} + \sum_{j-1}^{p-j} \alpha_{v\Delta}^* Y_{t-j} + v_t \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots 3.1$$

Where: Δ is the difference operator, $p = 1$ and $\Delta y_t = (p-1)y_t + \mu_t$ Phillips–Perron test involves fitting I (1), and the output is used to calculate the test statistics. Phillips–Perron builds on the Dickey-Fuller unit root test, which involves fitting the following regression equation 3.1. Philips Perron tests the null hypothesis that the series contains a unit root against the alternative hypothesis of the data that has no unit root.

3.3.2. Diagnostic Tests

In order to ensure the validity of the estimated results, the following linear regression assumption tests were performed: normality and autocorrelation.

3.4. Johannsen's Test for Co-integration

Co-integration is a significant economic phenomenon. As a result, Johannsen's co-integration test was employed to determine co-integration among the variables in the study. Large values in trace statistics obtained from Johansen's tests, as reported by Johansen and Juselius (1990), provide evidence against the null hypothesis that there are r or fewer co-integrating relations in the VECM. For the eigenvalue statistics, eigenvalues used in computing the log-likelihood at the optimum and assuming that these eigenvalues are sorted from largest to smallest, it follows that if there are $r < k$ co-integrating equations, α, and β have rank r and the rest of the eigenvalues beyond r.

3.4.1. Model Stability Tests

When a model is estimated, it is assumed that its parameters will remain constant throughout the duration of the study.

3.5. Roots of the Companion Matrix

Misspecification of the model series analysis can lead to biased conclusions. Therefore, reviewing the model is critical. It is also critical to evaluate the model's generated coefficients. This is performed by investigating the Eigen stability condition of the VECM model. If the roots of the companion matrix are all inside the unit circle, the model is stable (Adediran & Akpa, 2022).

4. Empirical Results and Discussion

The secondary data obtained was described using the descriptive statistics shown below:

Variable	Observations	Mean	Std. Deviation	Minimum	Maximum
EGR	40	3.970454	2.284124	-0.799494	8.405699
DDT	40	5812027	8073803	12250.54	3.36e+07
EXD	40	9.37e+09	7.30e+09	3.23e+09	3.42e+10

Table 2: Descriptive Statistics
Source: Author (2021)

Measures of mean central tendency were taken. The maximum and minimum values of the study variables were also determined. Descriptive statistics are significant in time series analysis because they allow for the meaningful presentation of raw data and the easy interpretation of data (Cohen, 2014). Over the research period, economic growth averaged 3.97 percent every year. Its lowest growth rate has been roughly -0.799 percent, and its maximum growth rate has been approximately 8.41 percent, with a standard deviation of 2.28. This indicates that Kenya has been improving over the years and has implemented important economic, structural, and political reforms that have driven and sustained its economic growth.

Domestic debt (DDT) had a standard deviation of 8073803 US dollars, with a low of 12250.54 US dollars and a high of 3.36e+07 US dollars. External debt (EXD) had a mean of 9.37e+09 percent, a standard deviation of 7.207 percent, a minimum of 3.23e+09 percent, and a maximum of 3.42e+10 percent.

The correlation among the study variables is indicated in table 3 below:

Variables	DDT	EXD	INF	EXR	EGR
DDT	1.0000				
EXD	0.9027	1.0000			
	(0.0000*)				
EGR	0.4268	0.3289	-0.5099	0.2200	1.0000
	(0.0060*)	(0.0383)	(0.0008*)	(0.1726)	

Table 3: Pairwise Correlation Analysis
Source: Author (2021)

The association between EGR and EXD was significant, positive, and reported at 0.3289; p-value = 0.0383< 0.05. This demonstrates that rising foreign debt (EXD) results in higher economic growth (EGR). A significant foreign debt encourages exchange rate depreciation, which draws resources to the tradable sector. Domestic debt and economic growth registered a positive and significant relationship with a coefficient of 0.4268 and p-value = 0.0060*<0.05.

4.1. Unit Root Tests

Unit Root Test at Level						
	P-P Statistic	Prob	Critical Values			Conclusion
Variable			1%	5%	10%	
DDT	0.689	0.9896	-3.655	-2.961	-2.613	Non-stationary
EXD	1.900	1.0000	-3.655	-2.961	-2.613	Non-stationary
First Difference						
DDT	-8.600	0.0000	-3.662	-2.964	-2.614	*I(1)*
EXD	-9.795	0.0000	-3.662	-2.964	-2.614	*I(1)*

Table 4: Philips Perron Unit Root Test
Source: Author (2021)

The results by Phillips-Perron confirm the presence of unit root in the data, and VECM model requires that all the variables should be co-integrated of order (*I*). Upon first difference, it is observed that all Mackinnon p-values for all the variables were less than 0.005. Therefore, the series is stationary or integrated with order one. Therefore, the null hypothesis of the unit root was rejected in favor of the alternative hypothesis that the variables are stationary and that they are integrated of order one, *I (1)* (Perron, 2006).

4.2. Optimal Lag Length Selection

It is essential to determine the optimal lags because previous values have an effect on the present values. The effects of the independent variables on the dependent may not be instantaneous, as it needs a lapse of time, which constitutes lags. This, therefore, implies that care needs to be taken while choosing optimum lags during analysis.

Lag	LL	LR	Df	P	FPE	AIC	HQIC	SBIC
0	-1159.46				8.6e+21	64.692	64.7687	64.9119
1	-977.111	364.69	25	0.000	1.4e+18e*	55.9506	56.4112*	57.2702*
2	-968.974	16.274	25	0.906	3.96e+18	56.8875	57.7319	59.3067
3	-938.123	61.704	25	0.000	3.5e+18	56.5624	57.7906	60.0813
4	-898.054	80.137	25	0.000	2.5e+18	55.7252*	57.3372	60.3438

Table 5: Lag Length Selection
Source: Author (2021)

According to the AIC criterion, a 4-second lag was the ideal one, and the lowest value was 55.7252. As a result, the AIC criterion's recommended optimal lag length for this investigation was 4, as shown in table 5 above. According to Gujarati & Bernier (2004), there is no exact quantity of lags to utilize because decreasing the number of delays results in fewer degrees of freedom, which weakens the stability of statistical judgments.

4.3. Co-integration Test

Before estimating the VECM model, which is based on Johansen's method (Enders, 2010, pg 401), the *vecrank* syntax in STATA generates the output using Johannsen's co-integration test method using maximum eigenvalue statistic, trace statistic, and the choice of *r (the number of co-integrating equations)* that minimizes the information criterion. All of these are based on the co-integrating VECM model's maximum likelihood estimator developed by Johansen. Johannsen's tests for co-integration are shown in table 6.

Maximum Rank	Parms	LL	Eigenvalue	Trace Statistic	5% Critical Value
0	80	-136.5817	.	139.8905	68.52
1	89	-102.6319	0.8483	71.9910	47.21
2	96	-85.5983	0.6118	37.9238	29.68
3	101	-71.4473	0.5444	9.6218*	15.51
4	104	-66.6465	0.2341	0.0201	3.76
5	105	-66.6364	0.0005		

Table 6: Johannsen's Test for Co-integration
Note: Star '' Denote the Number of Co-integrating Equation*
Source: Author (2021)

There are three co-integrating correlations among the variables, as inferred from table 6.

4.4. Post-Estimation Diagnostic Tests

Checks whether the model is suitable for perdition purposes Jarque-Bera Test for Normality was used for this purpose.

Equation	Chi^2	Df	$prob > Chi^2$
D-EGR	1.37	2	0.51493
D_LEXD	9.887	2	0.71340
D_LLDT	16.107	2	0.26990
ALL	31.256	10	0.44537

Table 7: Jarque-Bera Test for Normality
Source: Author (2021)

Table 7 failed to reject the null hypothesis. It was concluded that the series was obtained from a normal distribution. The p-value for the combined ALL hypothesis was 0.44537, which is higher than 0.05.

4.5. Lagrangian Multiplier (LM) Test for Autocorrelation

First-order serial correlation occurs in time series when the error terms from one period are correlated with the error terms from the current period. The hypothesis should be accepted because ordinary least squares estimates for positive serial correlation typically have fewer standard errors than predicted. This decreases the t-value. A time series' autocorrelation measures how similar it is to a lagged version of itself over successive intervals of time (Blaskowitz & Herwartz, 2014)

Lags(p)	Chi2	Df	Prob> Chi2
1	0.074	1	0.7863

Table 8: Results of LM Test for Serial Correlation
Source: Author (2021)

4.6. Structural Test of Reliability of Coefficients

According to Lawal, G. O., & Aweda, N. O. (2015), misspecification of the model series analysis may result in spurious estimates. As a result, validating the model is crucial, making it crucial to assess the validity of the model's generated coefficients. This is accomplished by comparing the VECM model's Eigen stability condition to the outcomes shown in figure 2.
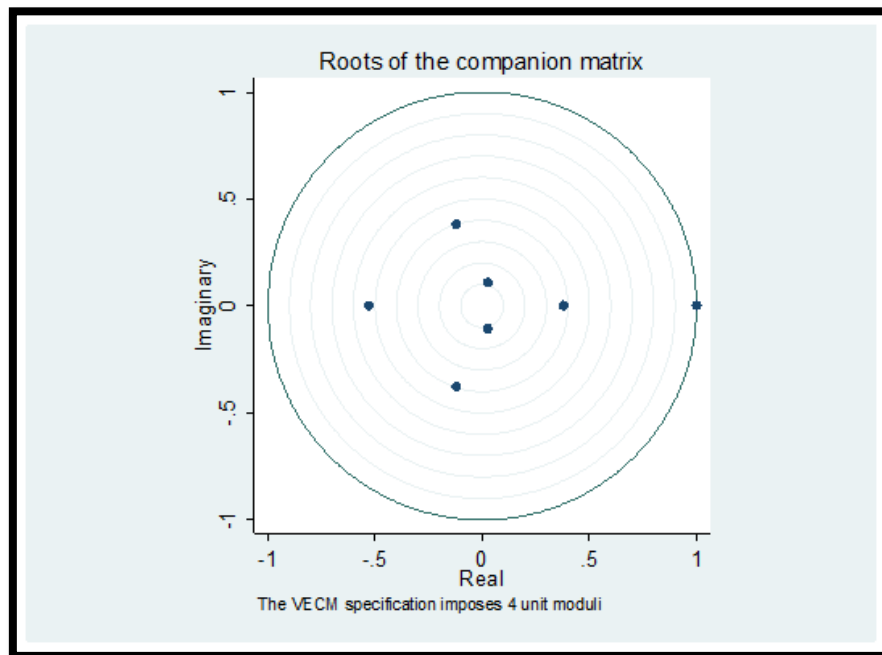

Figure 2: Roots of the Companion Matrix
Source: Author (2021)

The findings in figure 2 revealed that all values fell inside the unit circle, confirming the stability of the computed coefficient in the VECM model.

4.7. Summary of Statistical Results of the VECM

The results in table 9 below indicate that ce1 shows the adjustment rate to long-run equilibrium is significant with a confidence level of -1.2294 and p-value of (p = 0.007) at 5% level, meaning the endogenous variables corrects the disequilibrium in the short-run.

D_egr	Coef.	Std. Err	z	p>|z|
_Ce1				
L1.	-1.2294	0.4521	-2.72	0.0e07
Egr				
LD	0.6056	0.3961	1.53	0.126
L2D	0.2364	0.3132	0.75	0.450
L3D	0.3508	0.2575	1.36	0.173
Exd				
LD	0.0010	0.0006	1.63	0.104
L2D	-0.00001	0.0006	-0.02	0.986
L3D	0.0020	0.0007	3.05	0.002
Ddt				
LD	-0.1253	0.3688	-0.34	0.734
L2D	0.2216	0.3909	0.57	0.571
L3D	-0.6602	0.4939	-1.34	0.181
Const	-0.1871	0.6549	-0.29	0.775

Table 9: Results for Short-Run Vector Error Correction Model
Source: Author (2021)

The long-run relationship among the variables is represented as indicated in table 10 below.

	Beta	Coef.	Std. Err	Z	p>|z|
_ce1					
Egr	1	.	.	.
Exd	0.0003	0.0001	3.24	0.001
Ddt	-0.2664	0.1140	-2.34	0.019
Constant	-5.9603	.	.	.

Table 10: Long-term Co-integrating Equations and Hypothesis Testing
Source: Author (2021)

4.7.1. Effect of External Debt on Economic Growth

The results indicated that the coefficient of external debt was positive (0.0003) and significant, P=0.001<0.05. Therefore, the null hypothesis that external debt does not have a significant effect on economic growth in Kenya was rejected at 5 percent level of significance. This is in line with Keynesian theory, which promotes deficit spending to spur economic growth during downturns.

The study differed from Ajuh, A. I., & Oyeanu, E.'s (2021) research on the effect of external debt on economic growth in Nigeria. The research findings showed that the amount of external debt outstanding and its service had a negative and significant influence on economic growth. These results implied that economic growth decreased by 0.495 units if the foreign debt stock changed by one unit. The analysis came to the conclusion that Nigeria's external debt stock has hampered economic growth throughout the time period under consideration. The research consequently advocated that policymakers should stick carefully to the appropriate use of debt through efficient investment to boost growth and avoid excessive debt accumulation.

However, the study agreed with those of Thiora (2021), who examined the impact of Kenya's external debt on economic growth. The results showed that Kenyan economic growth was positively impacted by the stock of external debt while negatively impacted by external debt services. Additionally, both elements have a big impact on economic expansion. The analysis comes to the conclusion that Kenya's economic growth is positively impacted by external debt. The research also suggests that the government ensure that loans are directed towards productive sectors, diversify the economy to enable higher revenue creation, encourage capital development, and, where necessary, take on debt in critical capital areas.

4.7.2. Effect of Domestic Debt on Economic Growth

The results showed that the coefficient of domestic debt was negative (-0.2664) and significant $p = 0.019 < 0.05$. The null hypothesis that domestic debt does not have a significant influence on economic growth in Kenya was rejected at the 5 percent level of significance. This implied that domestic borrowing would cause crowding-out effects, which, in the long run, reduce investment from the private sector hence reducing economic growth in the country.

The study concurs with the research of Njoroge (2015) in his analysis on the effect of domestic public debt on economic growth in Kenya. The study inferred a negative association between debt and growth. However, the data disprove that debt is a direct cause of economic growth. The study recommends, among other things, that the government ensure sure the nation's overall debt is kept as low as possible. If the government must borrow, it should take into account domestic borrowing for the sake of the country's economy.

According to the study by Matiti (2013), whose objective of this study was to investigate the relationship between public debt and economic growth in Kenya, it was found that domestic borrowing consumed a large percentage of government revenue, endangering the fiscal viability of the government. Domestic debt is more expensive to sustain since its interest rates are greater than those on external debt, which is typically taken out on favorable conditions. Therefore, the government must develop and implement immediate debt reduction plans for domestic debt. Such plans must take into account the possibility that straightforward debt reductions may raise system liquidity and threaten macroeconomic stability.

5. Conclusion and Recommendations

5.1. Policy Implications

The study shows that domestic debt expansion in Kenya, for the period of study, has a negative and significant effect on economic growth. This study, therefore, recommends the following:

The Kenyan government may consider minimizing domestic borrowing provided since it affects economic growth negatively and supports the debt overhang economic theory, in the long run, it would eventually cause crowding out in the economy where private sectors tend to reduce their investment in the economy.

Results depicted that external debt had a positive and significant effect which, in essence, could imply that where external borrowing was used as intended as laid down in the borrowing schedules, this could lead to increased economic growth in Kenya.

According to the conclusions, the government should use the borrowed money to diversify the economy's productive base. This will boost long-term economic growth, widen the base of taxation, and increase the country's ability to pay off its obligations when they are due.

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