RELATIONSHIP BETWEEN BUDGET FINANCING AND ECONOMIC GROWTH IN KENYA

BY

LILY JEROP KOECH

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DECLARATION

I declare that the work in this dissertation has not been previously published or submitted elsewhere for award of a degree. I also declare that this is my own original work and contains no material written or published by other people except where due reference is made and author duly acknowledged.

Name: **Lily Jerop Koech** Registration No: 18/06579

Signature:  Date: **20/10/2023**

I do hereby confirm that I have examined the master's dissertation of

Lily Jerop Koech

and have certified that all revisions that the dissertation panel and examiners

recommended have been adequately addressed

Signature:  Date: **20/10/2023**

DR Charles Githira Wanyoike, PhD.

ABSTRACT

Financing is essential for the economy of any country. The paper seeks to assess the connection between budget financing and economic growth in Kenya. Precisely, it examined the relationship between taxation, internal borrowing, external borrowing, official development assistance and economic growth in Kenya. This study was founded on three theoretical foundations: Optimal Tax Theory, Modern Theory of Money, and Debt Overhang Theory. It adopted correlation research design. The study collected monthly data from July 1999 to December 2022. The study utilized time series data collection forms based on the study's objectives. Data analysis was carried out using E-views version 11 and vector error corrected model will be fitted. Figures and tables presented the findings. Results of the study indicated that taxation inversely affected economic growth in Kenya. Hence, increased levels of taxation deterred economic growth in Kenya. It was documented that internal borrowing has significant relationship with economic growth in Kenya. External borrowing has inverse relationship with economic growth in Kenya. Official development has statistically significant relationship with economic growth in Kenya. It can be deemed to be double edged where increased taxation was associated with changes in its administrative costs and spillage of revenue collected. There is need for evaluation of internal borrowing costs by the government since increased borrowing costs of treasury bills and treasury bonds whose risk of default is low compared to individual borrows may constrain access to private capital. There is need for consideration of borrowing costs and contractual currency since there are instances in which local currency may depreciate its value and it will impact repayment amount. It can be concluded that reliance on official development assistance has effect on economic growth in Kenya. It can be recommended that there is need for adoption of matching taxation policies that would escalate tax collection strategies and minimize spillage of resources. There is need for consideration of seeking internal debts via treasury bills and bonds though it ought to undertake it very cautiously since it may trigger skewed borrowing from the private sector. There is need for consideration of external borrowing that would be cheaper and available for a longer period of time. there is need for development of strategies that would guide in fund raising of grants for undertaking projects that will have social economic benefit.

Key words: Taxation, Internal borrowing, External borrowing, Official development assistance, Economic growth.

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ABBREVIATIONS AND ACRYONMS

CPPMU	Central Planning and Project Monitoring Unit
DGNYS	Director General National Youth Service
DLMOX	Diverse Leader Member Organization Exchange
GOCB	Group Organizational Citizenship Behavior
JKUAT	Jomo Kenya University of Agriculture and Technology
LMX	Leader Member Exchange
MFFs	Multiannual Financial Frameworks
NACOSTI	National Commission for Science, Technology and Innovation
NPS	National Police Service
NYS	National Youth Service
PIM	Program Implementation Manual
PM	Performance Management
PMS	Performance Management System
SPSS	Statistical Package for Social Sciences
USA	United States of America

OPERATIONAL DEFINITION OF KEY TERMS

Economic growth	These are the changes in the economy indicated by GDP (Diwakar & Shepherd, 2018).
External borrowing	These are the amounts of loans borrowed from development banks and other international financiers (Shkolnik & Koilo, 2018)
Internal Borrowing	This is the money collected through bonds and treasury bills (Murungi & Okiro, 2018)
Official Development Assistance	Proportion of financing sourced through grant and international aids (Lee et al., 2020).
Taxation	The amount of taxation per year from all taxes (Abdin, 2018).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Many academics have differing opinions about a country's budget's impact on its economic development. The budget and economic growth have a neutral relationship (Kanchori, 2020). A balanced budget is crucial for every nation to experience long-term and sustained economic growth. Specifically, a budget is a very effective and practical tool and instrument for designing and implementing a nation's development policies. Whether or not this instrument is balanced or in deficit will significantly impact its utility and effectiveness. Because it affects various macroeconomic trends and is influenced by numerous macroeconomic causes, the budget cannot be detached from the economy.

The budget essentially reflects the government's economic policies. The budget is a tool used by a nation's government for resource mobilization and allocation, capital formation acceleration, increased job opportunities, and resource distribution equity. A budget is also an annual statement of anticipated revenues and costs (Momen & Kaiser, 2019). This current study conceptualizes that budget financing has significant influences on economic growth. According to Crowe (2021), in the EU, governments have historically used budgeting to determine how much money to spend on what, restricting expenditures to available revenues and reducing overspending. Budgeting is increasingly required to fulfill various responsibilities and duties, including serving as a crucial political platform, a tool for stimulating the economy and society, a vital instrument for administration and management, and a significant channel for accountability. Various functions

have resulted in different budget styles, assumptions, and ever-more sophisticated budgeting procedures.

For this reason, the EU implements Multiannual Financial Frameworks (MFFs), which are long-term spending plans that cover 5-7 years. Since Estonia's independence was restored in 1991, public-sector financial management has been a subject of ongoing development. Despite leading the charge in Central and Eastern Europe for financial management reform, the nation has consistently maintained its public debt at a low level and maintained a balanced budget. As a result, a new financial law with modern budgeting practices based on transparency principles, financial restraint, efficient parliamentary monitoring, and thorough external audit was adopted following the amendment of the organic budget Law (Argento, Peda, & Grossi, 2018).

1.1.1 Budget Financing

Budgeting is a crucial tool for management and governance of public and private resources. Its credited as on efficiency and control of the link between expenditure (payment) and income (receipts) (Morina, 2020). Public expenditure includes and not limited to recurrent expenditure, capital expenditure and debt servicing. Optimal expenditure in the public sector have effect on economic growth. Since minimization of resources spillage enhances revenue absorption in social economic projects. Budgeting and infrastructure development have a significant relationship (Emejulu, Onyekwelu, & Aandoakaa, 2019). However, there are rising worries that the significant capital expenditures included in annual budgets and spending plans would not influence the GDP (Gross Domestic Product) or the lives of ordinary people. As a result, transfers significantly impact economic growth, while recurrent expenditures have little to no impact. The findings suggest that government debt accumulation in foreign countries should be discouraged.

In Ukraine, it was reported that an increase in tax revenue have This shows that increased revenue from taxation was not good for the economy. Since many taxes revenue is an essential source of budget financing, it is germane to test the reliability of these findings in developing countries such as Kenya, which is the focus of this current study. In Indonesia, a study by Wulandari and Harjito (2021) showed that interest rates affect stock values. High-interest rates lead to reduced spending and a drop in stock prices; the combined effect is reduced economic growth due to less financing through stocks. Countries should thus put efforts to keep interest rates to check its effects on reduced financing. Morina (2020) showed that real economic growth is negatively impacted by exchange rate volatility. The results seem solid with alternate metrics of exchange rate instability like standard deviation and z-score.

The budget substantially impacts the economy in India through capital and income allocations, tax plans, and expenditure allocations (Kumar, 2022). The fiscal year's money supply and interest rate are also influenced by the size of the fiscal deficit and the available financing options. The government's continued expansion of capital expenditures is generally anticipated. To enable infrastructure financing, the government is urged to permit external long-standing infrastructure financiers such as sovereign wealth funds, pension funds, private equity funds, and bonds. However, Kumar did not examine the link between these financing options and economic growth in the country. Nevertheless, the findings show that countries deploy various measures to enhance budget financing. Teng (2021) demonstrates that governments in Africa had comparable difficulties in obtaining loans. This underlines the need for countries in the region to put in place mechanisms to enhance their ability to attract loans. The former study did not pay attention to how loans helped recipient nations improve economically, hence the need for studies such as this current one. Nigeria's budgets/expenditures have changed throughout the past ten years.

In Liberia, Katib (2021) reconnoitered the relationship between "debt administration and the economic development of Liberia" The study used the time series approach. According to the report, the country obtained financing through grants and low-interest loans to participate in wide-ranging economic growth and the fight against poverty. The analysis shows that funding was essential to the nation's economic expansion. However, the study was undertaken in other parts of Africa and may not relate to Kenya hence the need for studies such as this current one.

Sampa (2020) established that Tanzania should ensure its debt is manageable and primarily concessional. Failure to do so would affect the anticipated economic outcomes of the loans deployed. Although the earlier study was conducted in an Eastern African nation, the veracity of the findings in Kenya was challenging to establish without such studies. Ssempala, Ssebulime, & Nyorekwa (2020) demonstrated that while public debt has a mixed impact on the economy over the long term, it significantly adversely affects economic growth in the short term. Further, it demonstrated that government debt negatively impacts Uganda's economic growth in the short run. However, it is found that the effect is positive in the long run. Therefore, African nations should turn to foreign financing to aid economic progress. The former study was undertaken in a country that neighbors Kenya. However, a country-specific attribute may limit the level to which these outcomes can be indiscriminate in Kenya hence the need for studies such as this current one.

Nyakoe (2020) claims that while economic development has been erratic, the trend in Kenyan government borrowing has been rising on both a domestic and international level. As a result, financing the internal budget deficit impacts economic progression. According to the report, policies that encourage subsequent borrowing should be implemented to lessen the damaging impact of external budget deficit financing on the economy. In order to lower the deficit, supported

by internal borrowing, the government should also identify measures to improve its capacity to generate money, notably by expanding the tax base. Oguso et al. (2018) assert that Kenya requires significant and ongoing fiscal consolidation to free up funds for funding government development initiatives and sustainable development targets. Unfortunately, the government has had trouble maintaining its efforts at budgetary consolidation. This is because rising perceptions of corruption in the public sector and political budget cycles worsen budget imbalances and impede Kenya's efforts to consolidate its finances.

Ngugi (2018) claims that borrowing is to blame for Kenya's rising government debt and its detrimental effects on the country's economy. Opponents of borrowing contend that the public debt trajectory is unsustainable and harmful to economic progress, despite the government's defense of borrowing as helpful and essential in filling infrastructure gaps and promoting economic growth. Economic progression and public debt are related because the choice of public funding affects incentives, resource utilization, and output opportunities (Mwere, 2018). However, studies on the connection between public debt and economic growth have shown conflicting findings, demonstrating that the relationship depends on debt subtleties that differ from nation to nation. The primary budget balance, interest payments, and gross domestic product are some factors that affect the dynamics of debt.

1.1.2 Economic Growth

The government cannot seem to raise enough money to finance its operations, according to Kithinji (2020). Due to borrowing, Kenya's public debt increases, indicating that income collected by the government is averted to facilitate the accumulated debt, meaning that internal and commercial expansion and consumption bear the brunt of this. This has decreased banks' motivation to raise

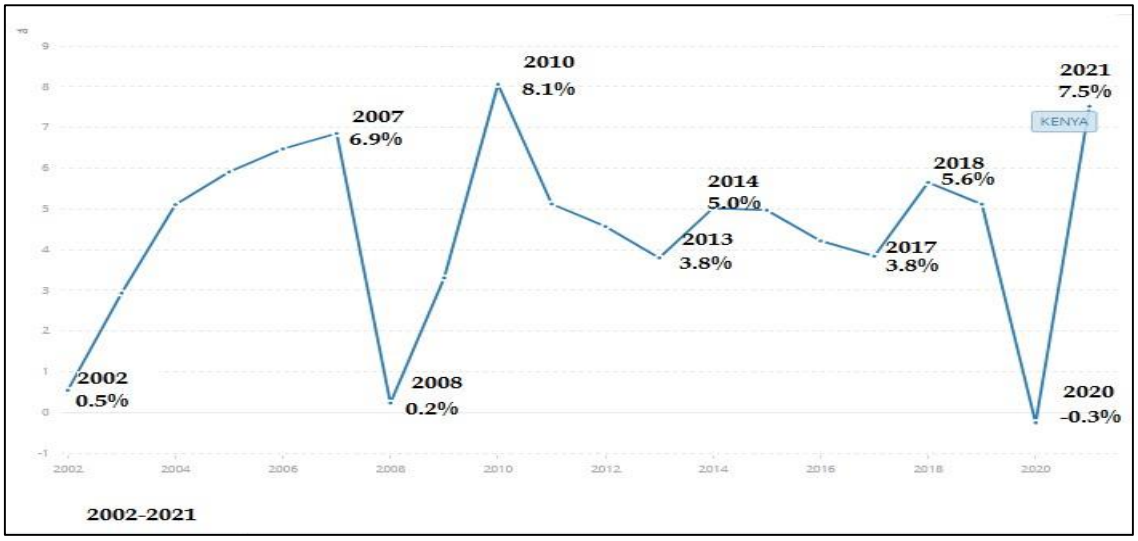
funds to enhance private-sector financing. As a result, the government has the propensity to raise taxes and cut spending to pay down the debt. Due to Kenya's high tax burden, macroeconomic factors like inflation and interest rates significantly impact people's purchasing power.

In the ten years leading up to 2020, Kenya was among the fastest-growing economies in sub-Saharan Africa, with GDP growth averaging 5.5% and graduation to middle-income status (IMF, 2018). Political decentralization with the passage of a new constitution in 2010 and an economic strategy that identified the "big four" priority sectors for the nation - industrial, universal healthcare, inexpensive housing, and food security - have supported the brisk economy. Although economic climate and infrastructure improvements favor private investment, political patronage and corruption are still endemic (Wankuru et al., 2019).

In addition to substantial increases in per capita income of 4.6% annually and a decrease in the poverty rate from 46.6% to 36.1%, Kenya's robust GDP growth has been accompanied by these developments. According to KNBS, extreme poverty decreased from 19.6% to 8.6% within the same period (2016). However, an estimated 80% of Kenyans live in poverty or close to it, making them susceptible to returning. The wealthiest 25% of the population have reaped most of the gains of economic progress, devouring 60% of the rise in GDP (Diwakar & Shepherd, 2018). Additionally, despite Kenya's population doubling since 1990 and a large portion of the expanding number of young people failing to find employment, the absolute number of poor individuals has mainly remained stable. Long-term data shows that frequent fluctuations characterize economic growth in Kenya. Panel data for 20 years (2002-2021) shows that there have been frequent fluctuations, with dips being recorded in 2008, 2009, 2011, 2012, 2013, 2915, 2016, 2017, 2019, and 2020 (World Bank, 2022).

FIGURE 1

GDP Annual Growth in Kenya (2002-2021)



Source World Bank (2022).

As shown in the preceding discourse, it is evident that Kenya has not seen steady economic growth despite various budget financing interventions. This underlines the need for studies inspecting financing and economic growth in Kenya. Therefore, this study examines the relationship between budget financing and economic advancement in Kenya.

1.2 Statement of the Problem

For every nation to experience long-term and sustained economic growth, having a balanced budget is crucial (Momen & Kaiser, 2019). As a result, governments seek various forms of budget financing to enhance budget growth. Crowe (2021) believes that the budget substantially impacts the economy through capital and income allocations, tax plans, and expenditure allocations. Nevertheless, this is often not the case in developing countries such as Kenya. Although Kenya continues to borrow extensively, there is little to show for it (Ngugi, 2018). The country has

continued to register erratic growth over the years. A 20-year analysis of economic growth in Kenya shows immense dips (World Bank, 2022).

These findings questioned the impact of reasonable funding on economic development in Kenya. Empirical literature shows conflicting results regarding the nexus between financing and economic growth. In contrast, some studies show that external debt has positive effects on economic growth (Ssempala et al., 2020; Nyandwi, 2022, Ocharo & Musyoka (2018);1 other report a negative association (Misztal, 2021; Obi, 2022; Ssempala et al., 2020). Although, these findings have been carried out in different continents and have applied varying methodological approaches. The link between budget financing is not conclusive due to methodological, conceptual, contextual and knowledge gaps that necessitates the need for the current empirical enquiry. Hence, this current study examined the relationship between budget financing and economic development in Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

The study examined the relationship between budget financing and economic growth in Kenya.

1.3.2 Specific Objectives

i. To determine the relationship between taxation and economic growth in Kenya.
ii. To assess the relationship between internal borrowing and economic growth in Kenya.
iii. To examine the relationship between external borrowing and economic growth in Kenya.
iv. To establish the relationship between official development assistance and economic growth in Kenya.

1.4 Research Questions

The study addressed the following research questions:

i. What is the relationship between taxation and economic growth in Kenya?
ii. What is the relationship between internal borrowing and economic growth in Kenya?
iii. What is the relationship between external borrowing and economic growth in Kenya?
iv. What is the relationship between official development assistance and economic growth in Kenya?

1.5 Significance of the Study

The study was significant for understanding the correlation between budget financing and economic development in Kenya. The implication can be appraised in terms of conjectural and policymaker perspectives. In theory, has added awareness of Kenya's budget financing discipline. This prompts additional inquiries on financing options.

Legislators may adopt the report findings to guide the choice of financing approach among project needs in Kenya. Economic researchers would find this study helpful. This would add to the academic discourse on financing and its nexus with economic growth. Other academics might be encouraged to undertake follow-up studies on the subject.

1.6 Scope of the Study

This study took place in Kenya. It was limited to four budget financing approaches: taxation, internal borrowing, external borrowing and official development assistance, that could influence economic growth in Kenya. The study relied on monthly time series data collected from July 1999

to December 2022. The study deployed multivariate time series model in examination of the relationship between budget financing and economic growth in Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section analyzes the theories elucidating financing and its influence on economic growth. The pragmatic appraisal will also determine what other academics have found. A conceptual framework will also be created to validate the variables' connections and operationalize the variables.

2.2 Theoretical Review

This study is founded on four theoretical foundations: Optimal Tax Theory, Modern Theory of Money (MTM), and Debt Overhang Theory.

2.2.1 Optimal Tax Theory

The Ramsey (1927) and Mirrlees (1927) foundational works form the basis of optimal tax theory (1971). According to the idea of optimum taxation, a tax structure should be constructed to maximize a social benefit function within a set of limitations. Ramsey's study used consumption as the basis for choosing the best tax subject, and Mirlrees' study chose income as the tax object. The researchers looked for ideal tax rates concerning the chosen tax topic.

The Ramsey method of optimal taxation assumes that governments cannot use lumpsum taxes and that the only option to raise the necessary budget revenue is through distortionary taxes, resulting in a loss of wealth in terms of economic efficacy and moving away from the model solution. Ramsey emphasizes this framework's tax subject and rate to reduce efficacy loss. It is

commonly accepted that the government may levy a linear income tax in addition to a commodities tax under the Ramsey approach (Golosov & Tsyvinski, 2006).

The primary source of income is taxation, which is levied under the authority of the state. One primary political instrument that nations employ in this situation to achieve their economic, social, and political objectives is the tax system. States can use successful strategies to accomplish their macroeconomic objectives by using taxation as a tool for fiscal policy. The importance of tax policies in achieving the aforementioned macroeconomic objectives demonstrates that taxation is one of the state's powerful weapons for implementing economic policy. According to the social state theory, taxation becomes a means of transfer. It is widely acknowledged that enabling equality for each person is at the core of what governments owe to their citizenry (Mirrlees, 1971).

According to this theory, maximizing wealth is the primary objective of economic and fiscal policies. This aim has several sizable sub-goals, including promoting stability, growth, resource allocation efficiency, and equitable income distribution. Taxation is the primary financial tool to achieve the desired outcomes. The literature, particularly within the framework of the Optimal Taxation theory, considers the type of taxation that serves the objective of maximizing wealth from existing tax applications under the changing and developing state understanding (Golosov & Tsyvinski, 2006).

Along with trade liberalization, markets become more expansive and innovative as they grow, which may enhance the price pliability of demand by expanding the potential of substituting commodities, particularly necessities (Hummels & Lugovskyy, 2008). In contrast, businesses work to reduce the demand pliability of their goods from the brands developed and by fostering

greater brand allegiance. Brand loyalty lowers buyers' price sensitivity, especially in product categories that include luxury goods like technology and automobiles.

The main argument against this rule is that superfluity goods have high price pliability of demand while necessities that address rudimentary needs have low price flexibility. Economists argue that taxing superfluity goods lowly than essential products under the premise that consumers are similar to one another hurts the fairness of taxation. The theory is significant in explaining the importance of taxation on budget financing, which could have significant implications for economic growth in Kenya. Since changes in the amount of revenue generated through taxation if allocated to infrastructural project it may promote social economic development. That would eradicate odds of unemployment through promotion of entrepreneurial opportunities.

2.2.2 Modern Theory of Money

Modern Monetary Theory (MTM) was first used by Mitchell and later developed together by Mosler and Wray in the early 1990s (Wray, 2011). However, some concepts are based on previous themes in Keynesian economics. MMT emphasizes the flexibility in economic policy that results from monetary funding of government spending deficits. It has aided in discussing the potential, functions, and relations between the regime, the central bank, and the private sector in the economy.

Governments, according to MMT, have an unbreakable home monetary domination that permits unobstructed use of the country's money as a policy measure since the government requires payment of taxes in legal tender (Wray, 2011). The reserve bank can step in and provide the government with money on an ongoing basis without any issues by purchasing new government

debt if the markets lose faith in the sustainability of government debt or set unfavorable terms for government financing. According to MMT, the practice of central banks producing currency supported by government debt and mandated by the public is evidence that the state and central banks can be viewed as a solitary amalgamated organization concerning institutional goals and balance sheets (Tymoigne & Wray 2013).

Since new money is frequently issued against government securities, MMT sees public debits as necessary before money can enter the private sector. Taxation is therefore seen as the absorption of money, whereas government deficits are seen as the creation of money (Wray 2012). This suggests a shift from the conventional viewpoint, which holds that governments must first earn revenue through taxes and borrowing before spending it.

Despite MMT's emphasis on its preferred perspective on creating money, it does not convincingly demonstrate that there is more room for budget deficits without inflation (Summers, 2019). Its suggestion to utilize taxes as a tool for monetary policy disregards years of work to distinguish between fiscal and expenditure choices in light of the varied political objectives of each. Despite its best efforts, MMT abandons market-based countercyclical monetary and fiscal policy in favor of focused state control over the distribution of resources. It would be built on a government-guaranteed employment program and rely on particular interventions to deal with barriers.

The description provided by MMT confuses modern organizational reality with historical examples in which the public sector consolidates economic ascendency in the face of global threats, leading to a change in the relative importance of various economic policy goals in favor of government resource mobilization. Typically, this happens before and after a war. In these

conditions, direct public sector access to the reserve bank to finance activity is one of many policies used to steer economic activity, regulate prices, and regulate global capital flows. Other objectives and requirements define the connection between the central bank and the government when such a situation and supportive measures are absent (Tymoigne & Wray, 2013).

This theory, within the context of this study, explains the pivotal role played by financing in an economy. Since the demand for development projects may not match revenue generated through taxation, then the government should bridge this gap through adoption of internal borrowing through short term (treasury bills) and long term through treasury bond. Allocation of these resources to development projects would aid in achievement of development plans earlier than anticipated and ultimately stimulate economic development.

2.2.3 Debt Overhang Theory

Myers first proposed this idea in his 1977 study, which included business valuation and debt financing. He looked at why businesses do not finance their operations with the maximum amount of debt, even though there is undoubtedly a tax benefit due to interest rate deductions. His justification is that a significant accumulation of levels could disrupt and negatively impact an entity's likelihood of reaping the maximum benefits from future investment decisions. Since some forthcoming incomes from projects are returned to creditors as pledged outflows, debt puts into practice a behavior where positive net present value initiatives do not get started. In a separate study, Krugman (1988) defined "debt overhang" as a situation lacking revenue burdens the government's foreign debt repayment.

Government spending starts to exceed its income, which makes it difficult to pay back foreign debt. Cohen believed that foreign debt had an asymmetric relationship with investment,

one of the measures of economic expansion. Cohen's views were backed up by Clements et al., who claimed that any country's economic development could be significantly influenced by its foreign debt. Nevertheless, he said that borrowing is only beneficial up to a certain point; going over that threshold could put a country in a "debt Overhang" condition.

In 1990, Claessens and Diwan asserted that "debt overhang" denotes the superiority of the illiquidity effect, the encumbrance effect, or both to prevent development without concessions from creditors. It is significant to note that a country's likelihood of forgoing future economic growth and development to achieve current growth grows proportionally with the amount of debt it has amassed or taken on. Were (2001) supports his opinion that "the impact of debt overhang is significantly bigger because it affects more than just physical capital investments." However, it also impacts other operations, like human capital and technology, which have an upfront cost in raising future productivity. The situation is made worse by the options available to the government to pay off the debt, such as expanding the money supply through money printing, which causes inflation and distorts future government financial policies like taxation.

This theory explains the routes through which high debt affects economic advance. Since, different sources of financing may have different costs, there are higher chances of accessing cheaper sources of finance externally as compared to internal sources. Further, external sources of financing would discourage internal borrowing by the government and would ultimately allow financial institution to have free cashflow that may be absorbed as capital by private sector players.

2.3 Empirical Review

2.3.1 Taxation and Economic Development

Gurdal, Aydin, and Inal (2021) investigated the connection between tax receipts, public expenditure, and economic advance in G7 nations. Data covering the period from 1980 to 2016 were used in the study. In order to compare, the study utilized two alternative panel causality techniques. The results demonstrate a unidirectional connection between tax income and government spending but a two-way causality between economic expansion and government spending. Furthermore, tax revenue and economic growth lack a connection. Conversely, incidence domain causation results specify a long-run correlation between economic development and government expenditure and a bidirectional short- and long-run correlation between economic growth and tax revenue. According to the study's findings, taxation policies are practical financial tools that can help countries accomplish their economic goals when implemented in light of their respective economies.

Abdin (2018) examined the link between taxation and national economic growth. The results demonstrate that taxes are the government's primary income source. The government uses tax income to pay for various services, including security, safety nets, health care, transportation, education, and more. Because of this, the government frequently focuses on expanding the tax base and tax provider network. Acts are therefore passed in order to give tax collectors the necessary legal authority to accomplish their goals for revenue collection. The conclusions also stated that while the government has the right to collect taxes, it must equally keep in mind that taxpayers are obligated to understand how effectively their money is being used to benefit the entire country. A tax payer has the right to pay their taxes without difficulty or any form of stress.

However, because of their immense power, tax collectors may abuse the law to further their interests. Tax collectors have historically been the most wealthy, influential, and powerful group in society.

Zpençe and Mercan (2020) examined the connection between tax receipts and economic expansion. The investigation used VAR analysis and the Granger causality test. The findings illustrate that an upsurge in tax proceeds harms economic development. Consequently, raising tax rates will not have a good impact on economic growth, and vice versa; it will have a negative impact. Public spending was established to create substantial diminishing implications on economic evolution. The report advises policymakers to lower their tax rates rather than raise them because taxes are among the most imperative financial sources and have a variety of consequences on the economy.

Stoilova and Todorov (2021) investigated the impacts of three fiscal instruments, direct tax revenue, indirect tax revenue, and government expenditures on the economic development of ten new European Union member states from Central and Eastern Europe. The study stems from findings from annual Eurostat data for the years 2007 through 2019, together with a vector autoregression. Four control variables, the shares of gross capital formation, household consumption, exports in GDP, and economic growth in the euro area, accounted for the impact of non-fiscal factors on economic progression. The empirical findings show that whereas economic growth, exports, and gross capital formation are favorably correlated with economic development, direct tax revenue harms the real output growth rate. The findings also suggest that neither government spending nor indirect tax revenue significantly affects the real output growth rate in

the studied countries. It is possible to conclude that policymakers can increase economic growth by promoting investment and exports while reducing the GDP share of direct tax income.

Nwanakwere (2019) examined the correlation between taxation and economic growth. The study used an ARDL-bound test methodology. The paper also divided taxes into excise and customs duties (ECD), petroleum profit tax (PPT), value-added tax (VAT), corporation income tax (CIT), and value-added tax (CIT) before analyzing each one's impact on economic growth. The Federal Inland Revenue Service (FIRS) and Central Bank of Nigeria (CBN) bulletin provided data from 1981 to 2014, which was significant for this study. The ARDL results show no co-integration among the variables. The decomposed taxes, however, are substantial in the short-term results, despite the total tax being tiny. While corporation income tax, excise taxes, and customs charges have negative relationships with GDP, petroleum profit taxes and value-added taxes have positive relationships with GDP. Based on these findings, the paper suggests using taxing effectively to enhance the effect of taxes on the Nigerian economy. In order to reduce the problem of tax dodging, predominantly amid businesses and corporate entities, and to enhance CIT's contribution to economic growth, effective tax regulation should also be implemented.

Ali, Dalmar, and Ali (2018) examined the relationship between Kenya's tax income and economic growth. In order to achieve this goal, pertinent time-series secondary data were gathered from the Federal Inland Revenue Service (FIRS), the Central Bank of Kenya (CBN) Statistical Statement, and previous scholarly studies from 1980 to 2007. The conventional least squares method was used to evaluate the collected data. The findings show that tax income favors and significantly impacts economic expansion. In other words, it highlights the pathways via which tax revenue affects Kenya's economic development. The study also reveals that loans and other

sources of income have no detrimental effects on growth. In other words, it highlights the pathways via which tax revenue affects Kenya's economic development. The study also exposes that grants and other sources of revenue have no disadvantageous effects on progression. Tax revenues, however, will only reach their full potential for the economy if the government can create new fiscal laws and regulations and support those that already exist, all in line with macroeconomic goals that will checkmate tax evaders and reduce corruption, tax evasion, and avoidance. These will bring about improvements in tax management and more accountability and openness on the part of public servants managing tax income. Above significantly, they will broaden the tax base, spurring economic expansion.

Omar et al. (2021) explored the effect of taxation on economic growth in Kenya. The study applied descriptive research design and ARIMA to examine the effect of income tax, value added tax, exercise duty and import duty on economic growth in Kenya. The study found that income tax, value added tax, exercise duty and import duty have significant effect on economic growth in Kenya. The study may have considered applying multivariate time series model and expanded the study period beyond 10 years or applied higher frequency data. Moreover, there is need for consideration of time series data diagnostic tests prior to fitting ARIMA model.

Ushie and Essien (2022) studied the impact of budget deficit financing and economic development in Nigeria. The study applied descriptive research design and sourced data from 2011 to 2020. The study depicted that there was a statistically significant association between budget deficit financing and economic growth and development. Further, there was a significant co-movement between budget deficit financing and economic growth and development. The study

may have considered higher frequency data such as monthly since the period under consideration was short.

Akoto (2020) studied deficit financing in Ghana and its impact in economic growth in Ghana. The study applied correlation research design and gathered data from secondary sources using secondary data collection sheet. Univariate and multivariate statistics analyzed the data. Results of the study indicated that economic growth was inversely impacted by deficit financing. The study may have considered mixed methods research design so as to combine qualitative and quantitative data.

2.3.2 Internal Borrowing and Economic Growth

Misztal (2021) conducted a study to ascertain the effect of domestic and external borrowing on the economic activity of the European Union. The study was based on data collected from 27 member nations between 2006 and 2017. The results demonstrate that the budget deficit and public debt both favorably impact the nation's economic growth, primarily due to the multiplier effect of the budget expenditures. The neoclassical school holds the opposing position on budget deficits and public debt, contending that they can affect economic growth. On the other hand, supporters of the Ricardian equivalence theory assert that public debt and budget deficits have no adverse effects on economic growth. The study recommends that the findings be used to understand the significance of the budget shortfall and public debt in the nation's economic growth and development domestically and externally.

Obi (2022) researched to determine whether Nigeria's foreign debt facilitated or hindered economic progress, establishing a link. Fully Modified Ordinary Least Square (FMOLS), the

Hansen Parameter Instability (HPI) co-integration test, and Vector Autoregression were utilized in the study (VAR). The study's findings validated that debt negatively links economic growth and that foreign debt does not contribute to growth. Therefore, foreign debt hinders economic growth. Notable was the analysis' intriguing attempt to view foreign debt as an intrinsic component of the debt-growth model. This deduction was established through the VAR causation test, demonstrating growth to generate debt. As a result, as the economy expands, government amenities are expanded to meet citizen demand, which increases the concentration of foreign debt to supplement local means. Therefore, it is advised that governments be supervised in the buildup of foreign debt so that it does not harm growth and that money should be directed toward attaining the country's economic goals.

Husain (2019) examined how India's governmental debt affected economic expansion. The study used per capita income and governmental debt (internal and external) data as a proxy for economic development. The ARDL co-integration test was employed in this study to examine the long-term relationships between the variables. The Granger causality test, which unraveled unidirectional causality, was also applied in the study. Only debt-fueled economic expansion. The results demonstrate that both in the short and long terms, public debt has a significant impact on economic growth. 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 taxation base, and increase the country's ability to pay off its obligations when they are due.

Ssempala, Ssebulime, and Nyorekwa (2020) examined the link between Uganda's debt levels and economic expansion. The Auto Regressive Distributed Lag (ARDL)-bounds testing methodology was used in the investigation. The findings show that while public debt has a mixed

effect on the economy over the long term, it negatively influences economic growth in the near run. While gross debt as a percentage of GDP benefits the economy, total debt service has a negative effect. The results also show that public debt has a short-term detrimental impact on Uganda's economic growth. However, it is discovered that the impact is favorable over time. This outcome is consistent with the research's expectations and past results that public debt has a detrimental effect on investment and GDP. The findings imply that the current borrowing tendency will limit resources in the short term. Conclusion The study's conclusion has several policy ramifications due to recent discoveries, particularly those related to debt. Due in part to the adverse effects of such public borrowing on investment, Uganda is anticipated to have worsening economic growth at the current rate of borrowing. Therefore, the study suggests implementing rules designed to make efficient use of borrowed money, especially for initiatives with a high likelihood of releasing the nation's output potential.

Murungi and Okiro (2018) thoroughly evaluated pertinent theoretical and empirical literature to examine the effect of government debt on economic growth. The Kenya National Bureau of Statistics and the Central Bank of Kenya provided secondary data for the study, among other sources. The results demonstrate that governments borrow to close budget gaps. Domestic debt is more expensive to sustain since its interest rates are greater than external debt, typically taken out on favorable conditions. The report pointed out that domestic debt reduction might be accomplished with funds from the privatization program of public businesses or by using externally borrowed resources, typically on favorable terms, to pay down more expensive domestic debt. The report suggests that the government create a system for tracking all contingent liabilities and create and put into practice a policy for managing those obligations. Additionally, the

government should keep up with broader reforms that support Treasury bond purchases and attract institutional investors like insurers and pension funds to buy Treasury bonds.

2.3.3 External Borrowing and Economic Growth

Shkolnik and Koilo (2018) scrutinized the connection between emerging economies' economic development and external debt. The authors employed the ADL model and correlation analysis, among other econometric tools. The results demonstrate that the initial values had little or no influence on estimating the parameters. Thus, it was presumed that rising economies have a nonlinear effect on macroeconomic variables, such as external debt, which affects economic growth nonlinearly. The authors found that these countries' high levels of external debt, along with macroeconomic volatility, limit economic growth. The regression model also shows that emerging nations have a critical debt burden level at which external debt's marginal effects on economic development are detrimental**.** The study's findings made clear how important it is that Ukraine establishes an efficient public debt management strategy. The proper organizational support has already predetermined this problem. The study suggests enhancing a model for managing public external debt. The authors of this report advocated a new framework that included independent agencies as a new component. All governmental organizations and organizational authority structures in this area should be integrated into the unified external debt management system.

Teng (2021) conducted a study to determine whether "foreign aid and concessional debts captivated Foreign Direct Indirect (FDI) flows into recipient countries." Information was gathered from a sample of 50 African nations. The study was conducted from 1993 to 2011. The analysis demonstrates that governments in Africa had comparable difficulties in obtaining loans. These were linked to institutional circumstances, financial creditworthiness, and income levels. The

"endogeneity problem in panel data analysis" was examined using the Gaussian mixture model (GMM) methodology. The results indicate that there were no substantial connections between foreign aid and FDI inflows. The results demonstrate that encouraging concessional loans for low-income countries to boost FDI inflows is a good idea. Additionally, it was discovered that foreign investors were primarily driven by economic growth in nations with higher levels of development. The prior study, however, did not pay attention to how concessional loans helped recipient nations improve economically, as this current study does.

Sampa (2020) conducted a study in the United Republic of Tanzania titled "An Empirical Assessment of the Impact of External Debt on Economic Development in Tanzania." The fact that external debt continues to be one of the most important funding sources for vital economic infrastructure served as the impetus for this study. An analysis of the past 50 years in the nation revealed that more than 70% of the debt level was financed outside. Midway through 2019, the external debt reached 77%. (USD 21 billion). The analysis also showed that the debt's concessionally had a beneficial, noteworthy impact on economic expansion. According to the research, Tanzania should keep ensuring its debt is manageable and primarily concessional. Although the earlier study was conducted in an Eastern African nation, rigorous research is the only way to determine whether the results apply to Kenya.

Chigbu, et al., (2015) investigated the impact of capital inflows on economic growth of developing countries. Timeseries data was gathered from bureau of statistics of Nigeria, Ghana and India from 1986 to 2012. Stationarity was examined using Augmented Dickey Fuller (ADF) test and Philip Perrons (PP). Causality was examined through Granger Causality and classical regression modelling. Long run equilibrium was evaluated using Johansen Cointegration test. It

was found that capital inflows had positive significant effect on economic growth in developing economies. These findings may not be generalized in Kenyan situation owing to different state of economic development compared to Nigeria, Ghana and India. The study should have investigated robustness of regression model prior to fitting it.

Sokang (2018) investigated the effect of foreign direct investment on economic growth in Cambodia. Time series data was collected from 2006 to 2016. Correlation and multiple regression analysis were adopted for data analysis. It was found that economic growth was positively affected by foreign direct investment (FDI), interest rate and consumer price index. Even though, the data was time series in nature, stationarity tests were not reported thus increased likelihood of fitting spurious regression model. Classical modelling had high likelihood of being biased since it was fitted in absence of its assumptions on linearity, multicollinearity, autocorrelation, normality and heteroskedasticity.

Onuorah, Nzotta, Ozurumba, & Chighu (2015) investigated the effect of selected economic indicators on foreign investment flows in Nigeria and South Africa. Time series data was collected for period 1980 to 2013. Classical modelling examined causality between economic indicators and economic development. Stationarity was tested using ADF and PP. Long run equilibrium was evaluated through use of Johansen Cointegration test. Further, Vector Autoregressive (VAR) model was fitted. Study findings revealed positive significant effect of foreign investment flows on economic development. It was necessary for the study to report findings on variance decomposition and impulse response.

Modou and Liu (2017) investigated the effect of Asian foreign direct investment on economic growth. Specifically, the study examined the effect of FDI, trade openness and economic

growth. Time series data was collected from 1980 to 2015. Weighted Fully Modified Ordinary Least Squares (FMOLS) was fitted and they revealed positive and significant effect of FDI on economic development. Granger causality revealed unidirectional causality between FDI and economic growth. Trade openness revealed bidirectional causality with economic development. It was necessary for the study to report diagnostic tests prior to fitting classical modelling.

Samantha and Haiyun (2017) investigated the impact of foreign direct investment on economic development in Sri Lanka through use of autoregressive distributed lag model. Time series data was collected from 1978 to 2015. Study findings revealed long run relationship between FDI and economic development. It was recommended that there was need for development of policies to attract foreign direct investment in developing economies. These findings may not be concluded in Kenyan perspective since the two economies are in different political set ups.

Wanjiku (2016) investigated the effect of foreign direct investment on economic development in Kenya. Time series data was collected and analyzed using Johansen Cointegration, ADF, PP, Granger Causality, VAR, variance decomposition and impulse response. Study findings revealed positive effect of foreign direct investment on economic development. These findings examined capital inflows in absence of loan and grant financing by multinational financial institutions.

Chege (2015) investigated the effect of foreign direct investment on economic development in Kenya. Time series data was collected for period 1984 to 2013. Classical modelling was fitted and correlation analysis examined the effect of foreign direct investment. Study findings revealed positive and significant effect of foreign direct investment and economic growth. Though, this study adopted time series data, it failed to examine stationarity which

increased likelihood of fitting spurious model. Further, fitting of classical model in absence of testing its assumptions which may have increased possibilities of drawing biased conclusions.

Katib (2021) inspected the correlation between "debt administration and the economic development of Liberia" in a study conducted there. The time series method was employed in the investigation. The results demonstrate that Liberia's trajectory has changed since receiving debt relief in 2010. Economic rents from the mining industry served as the government's primary sources of financing. Additionally, the nation received funding in the form of grants and low-interest loans to participate in all aspects and wide-ranging economic growth as well as the reduction of poverty. Additionally, the nation had started employing non-concessional loans, which hindered the government's ability to repay its debts.

In Uganda, a report by Ojambo (2019) demonstrated the country's rising debt levels. The report's analysis of security information related to government borrowing reveals that Uganda's foreign public debt has grown significantly. This accounted for 67% of the nation's overall debt. Even having a large amount of external debt, Uganda's funding shortfall in 2019 was predicted to be 6.7% of GDP. Non-concessional borrowing increased the amount of such debt. Ojambo's study did not provide information on the precise amount of non-concessional debt, although multilateral creditors accounted for 70% of external debt. However, embracing non-concessional loans rendered Uganda, the third-largest economy in East Africa, more vulnerable to outside shocks. Rising principal and interest rates can then have an impact on economic growth. This claim, however, was not empirically investigated, which necessitates additional research to analyze the potential connection between external funding and economic progression.

2.3.4 Official Development Assistance and Economic Growth

Awino and Kioko (2022) studied the effect of official development assistance aid on economic growth and domestic savings in Kenya through applications of simultaneous system modelling. Two stage least squares method was applied to address endogeneity problem. The study showed positive statistically not significant effect of ODA on economic growth. In addition, ODA positive affected domestic savings. The study may have considered quarterly data rather than annual time series data to increase its frequency. Further, the study ought to considered several antecedents of economic growth rather than limiting itself to ODA.

The impact of ODA and economic growth and carbon dioxide mitigations for the recipient countries was studied by Lee et al., (2020). The study relied on panel data from 30 countries who were beneficiaries of Korean aid from 1993 to 2017. Through application of modified impact, population, affluence, and technology (IPAT) model and a simultaneous equation framework. The study found that ODA has direct and indirect impact on economic growth and carbon dioxide mitigations among recipients' countries. The study may have considered expanding the panel set and considerations of data either semiannually or quarterly so as to mitigate hindrances associated with small sample challenges.

Kondu et al., (2016) evaluated the effect of foreign aid on economic growth in Ghana. Time series data was sourced from 1972 to 2012. Vector error corrected model depicted that labour, capital and government expenditure had statistically positive significant effect on economic growth while foreign and interest on foreign debt inversely affected economic growth in Ghana. To achieve positive economic development, it was recommended that there was need for identification of capital and labour based foreign aid strategies so as to stimulate economic growth.

Inomjon (2018) investigated the impact of development financial institutions on economic growth. The study hypothesed that economic growth was dependent on total development financing, foreign direct investment and multilateral agency funding support of local and international corporations. Time series data was collected and analyzed through use of correlation and regression analysis. It was reported that total development financing, foreign direct investment and multilateral agency funding support had positive significant effect on economic growth between 2005 to 2012. This study had methodological shortcoming since it did not test for classical regression assumptions before fitting regression model. Also, it was important to carry out stationarity test to minimize likelihood of fitting spurious model.

Massa (2011) investigated the effect of development financial institutions on economic growth. Time series data for 101 countries was collected from 1986 to 2009. Generalized methods moments (GMM) was applied for data analysis. Study findings revealed positive and significant role of multilateral support on economic growth. Further, low income countries recorded higher growth as compared higher income countries. Infrastructural and agricultural multilateral agency support had the highest effect on economic growth with developed economy having better advantage in venturing into agricultural investment in developing economies. These findings may not be generalized into Kenyan context owing to the fact that it considered data from different countries which may have been in different states of economic development.

Dalberg Global Development Advisors (2011) investigated the growing role of development financial institutions in international development policy. Through document content analysis, it was reported that despite of the role of DFIs being known in European countries private sector was not conversant with its role. DFIs were credited with continued exercise of spearheading

sustainable development and capacity to create employment in developing economies. It was evidenced that most of DFIs projects were undertaken in financial institutions at 45 percent, followed by 20 percent in infrastructure and 30 percent in industry sector. Geographical positions of DFIs activities revealed that 22 percent were in Africa, 15 percent in Asia and 12 percent in Latin America.

Dirk (2011) evaluated the role of development finance institutions in tackling global challenges. The examination argued that there are global challenges which are attributed to climatic changes, financial crisis, food insecurity, security challenges and oil price changes. DFIs are mandated to provide financial support through loan, equity and guarantee to address economic challenges. DFIs support to developing economies was reported to have maintained upward trajectory from 2003 to 2009. This examination was limited to the role of DFIs in economic development through private partnership and not all projects were undertaken in conjunction with private sectors.

Eze et al. (2020) examined the impact of foreign aid and economic growth in Nigeria. Through Cannonical Cointegration Regression (CCR) the study depicted that there was varying impact of education aid, health aid, industry aid and infrastructure aid on economic growth in Nigeria. In addition, foreign aid impacted economic growth positively. Since the study was carried out in Nigeria and in different time period there is need for a localized study so as to authenticate the current findings.

Morina (2020) studied the impact of absolute effective exchange rate unpredictability on economic progress in the nations of Central and Eastern Europe. The study examined the type and extent of the influence of such shifts on growth using annual data for 14 CEE nations from 2002

to 2018. According to empirical results using panel data using fixed effects modeling, real economic growth is negatively impacted by exchange rate volatility. The results seem solid with alternate metrics of exchange rate volatility like standard deviation and z-score. In order to promote economic growth, this article contends that policymakers should implement various measures to maintain the exchange rate's stability.

Veledinah (2014) investigated the effect of official development assistance (ODA) on economic growth in Kenya. Vector error corrected model (VECM) was adopted while analysing time series data collected from 1970 to 2012. The study was anchored on Solow growth model. In addition, to ODA, the study controlled the effect of private external resources flows, gross domestic capital formation, trade openness, broad money and inflation. There was positive short run effect of ODA on economic growth. Private external resources had negative effect on economic growth. There was positive effect of trade openness on economic development. The study ought to have reported findings on variance decomposition and impulse response.

Bayoko (2018) investigated the effect of official development assistance on economic development in WAEMU member countries. Time series data was collected and analyzed through use of autoregressive distributed lag model. Results of the study revealed significant short and long run effect of official development assistance on economic growth. These findings may not be generalized in Kenya since members were drawn from west Africa who’s political and stage of economic and social empowerment differs. The study ought to have reported findings on Granger causality between ODA and economic growth. The sample size ought to have been increased from 2002 to 2015 through use of quarterly or monthly data.

Refaei and Sameti (2015) investigated the effect of economic development assistance on economic development in Iran. Time series data was collected for period ranging from 1980 to 2012. Three cointegration equations were adopted to examine long run effect of economic development assistance on economic development. Study findings revealed positive significant effect of ODA on economic development. These findings may not be replicated in Kenyan situations owing to heterogeneity of political and economic status of the two countries. It was necessary to carry out diagnostic tests prior to fitting model and data stationarity should have been fully examined.

Mbah and Amassoma (2014) investigated the link between foreign aid and economic development in Nigeria. Time series data was collected from 1981 to 2012. Classical modelling, granger causality and Johansen Cointegration were adopted for data analysis. Stationarity was carried out through use of ADF and Philip Perrons test and data were stationary at levels. There was long run equilibrium between foreign aid and economic development. Foreign aid had positive significant effect on economic development in Nigeria. These findings explore direct effect of foreign aid alone while the current study will explore joint effect of loan, aid and equity financing of multinational financial corporations.

Ugwuegbe, Okafor and Azino (2016) investigated the effect of external borrowing on economic development in Nigeria. Official development assistance and economic growth data was collected for period from 1980 to 2013. Classical regression modelling was applied to examine causality while stationarity was tested through ADF and PP. Johansen cointegration evaluated long run equilibrium and VECM examined speed of adjustment. Data was stationary at level and there

was long run equilibrium between ODA and economic development. ODA had positive and significant effect on economic development.

Tang and Diya (2017) evaluated the effect of foreign growth and economic development. Time series data was collected for 23 years from 1990 to 2013 in Ten African countries. Classical modelling, ADF, PP, granger causality and Johansen Cointegration were adopted for data analysis. Study findings revealed significant effect of official development assistance on economic growth in sub–Saharan Africa. This study considered direct effect of ODA in exclusion of borrowed funding and equity financing by multinational financial institutions.

Naeruz, Afiffudin, Ruslan, and Syafii (2022) explored the impact of economic growth on technical advancements, e-currencies, and volatility in interest rates and currency rates in Indonesia. The study used multiple regression (OLS/One Least Square) and was conducted with the Eviews ten program using secondary time series data for 2004 to 2019. The results indicate that E-money has a negative and considerable impact on economic growth, that interest rates and exchange rates also impact it, and that technology has a beneficial impact. The study concludes that E-money has an undesirable and considerable impact on economic progress, interest rates have a negative but minor impact, and the exchange rate has a negative and substantial impact.

Ocharo and Musyoka (2018) conducted a study in order to determine the impact of actual interest rates, the exchange rate, inflation, and competitiveness on FDI in Kenya. From 1970 to 2016, annual time series data were used in the study. The World Bank Indicators and annual reports from the Kenya National Bureau of Statistics were used as data sources. Actual interest rates, exchange rates, inflation rate, business competitiveness and ease of doing business, and FDI were the variables for which data was gathered. The results demonstrate that real interest and currency

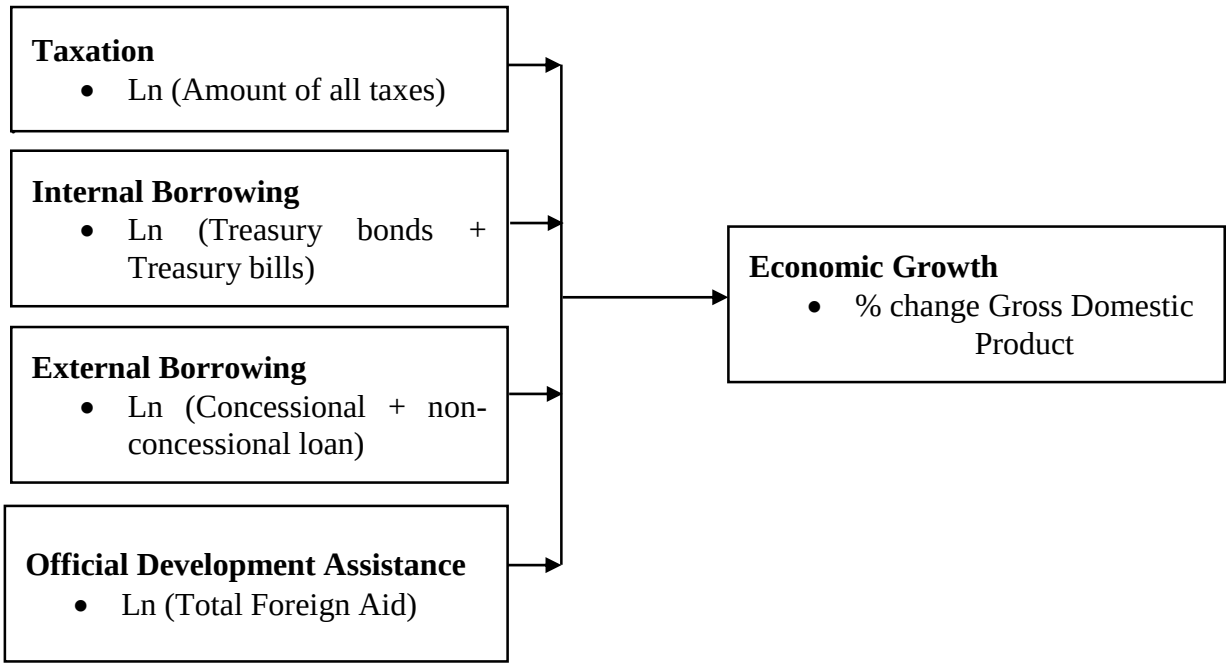
rates significantly and negatively affect FDI inflow into Kenya. Furthermore, the study concluded that competitiveness positively and significantly affects foreign direct investment entering Kenya. However, it was discovered that inflation had no impact on FDI.

2.4 Conceptual Framework

The study conceptualizes that economic growth is an outcome of taxation, internal borrowing, external borrowing and official development assistance. Economic growth will be operationalized as percentage change in gross domestic product. Taxation will be measured as natural logarithms of total taxes collected, internal borrowing as natural logarithms of (concessional + non-concessional loans) and official development assistance as natural logarithms of total foreign aids. The conceptual framework is presented in Figure 2.

FIGURE 2

Conceptual Framework



Independent Variables **Dependent variable**

2.5 Operationalization of Variables

Table 1 operationalizes the study variables. It also shows how they will be measured. Taxation will be measured as natural logarithms of amount of tax collected, internal borrowing will be measured as natural logarithms of treasury bills and treasury bonds, external borrowing will be natural logarithms of concessional and non-concessional loans and official development will be measured as natural logarithms of total foreign aid as shown in Table 1.

TABLE 1

Variables Operationalization

Variable	Measurement	Analysis Techniques
Taxation	Ln (Taxes)	Descriptive and Inferential statistics
Internal	Ln (Treasury bills and bonds)	Descriptive and Inferential statistics
External borrowing	Ln (Concessional + non-concessional loans).	Descriptive and Inferential statistics
Official development assistance	Ln (Total foreign aid)	Descriptive and Inferential statistics
Economic growth	% change in GDP	Descriptive and Inferential statistics

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This section analyzes the researcher's design, target population, sample, and sampling technique. The section also explains the instrument, reliability, and validity of the instruments, data collection procedure, data processing, and analysis.

3.2 Research design

A research design is an outline for acquiring responses to the inquiry being studied and controlling some of the challenges experienced during the research process. According to Sekaran and Bougie (2013), a good research design is guided by its ability to answer the questions being researched while simultaneously meeting the study's objectives and communicating the research problem. This study adopted correlational research design to explore the relationship between budget financing and Kenya's economic growth. The design is appropriate since the study aimed at examining the causality between budget financing and economic growth.

3.3 Target Population

The objective population comprised data on Kenya's economic growth between July 1999 and December 2022. This was obtained from central bank of Kenya website, Kenya national bureau of

statistics economic survey and World bank economic reports. There were gaps in the data especially in 1999 and December 2000 where data was not available for all months.

3.4 Data Collection Tool

The study utilized time series data collection forms based on the study's objectives; these guided the specific information to be sourced from respective sources. The data collection forms had structured guide pegged to the research questions.

3.5 Data Collection

The study gathered monthly timely series data on taxation, internal borrowing, external borrowing, official development assistance and changes in economic growth. The data was sourced through use of secondary data collection sheet. These secondary data was gathered from World Bank, CBK, and National Treasury periodicals and websites.

3.6 Data Processing and Analysis

Collected data was checked for completeness and transformed through use of natural logarithms. It will be exported in E-views 11. Data was analyzed through descriptive and inferential statistics. Descriptive statistics to be applied include mean, standard deviation, skewness and kurtosis. Inferential statistics include Product moment correlation, multiple regression and multivariate time series analysis. In addition, pre and post estimation diagnostic tests were carried. Tables and graphs were used to present the results. The model that was tested in the study is as follows:

$$Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \acute{\varepsilon}_t \quad (3.1)$$

Where:

Y= Economic Growth in Kenya

X_1= Taxation

X_2=Internal Borrowing

X_3= External Borrowing

X_4= Official development assistance

ɛi= error term

The study Vector Error Correction Model (VECM) econometric model. In the VECM, economic growth was a function of its own lag and lag of all other variables as indicated below:

$$Economic\ growth_{\ t} = \sigma + \sum_{h=1}^{k} \boldsymbol{\delta_h} Taxation_{\ \boldsymbol{t-h}} + \sum_{i=1}^{k} \beta_i Internal\ borrowing_{t-i} + \sum_{j=1}^{k} \gamma_j\ External\ borrowing_{t-j} + \sum_{m=1}^{k} \theta_m Official\ Development\ Assisatnce_{t-m} + \mu_{1t}$$

$$Taxation_t = \sigma + \sum_{h=1}^{k} \delta_h Economic\ growth_{t-h} + \sum_{\boldsymbol{i=1}}^{\boldsymbol{k}} \boldsymbol{\beta_i} Internal\ borrowing_{\boldsymbol{t-i}} + \sum_{j=1}^{k} \gamma_j\ External\ borrowing_{t-j} + \sum_{m=1}^{k} \theta_m Official\ Development\ Assistance_{t-m} + +\mu_{2t}$$

$$Internal\ Borrowing_t = \sigma + \sum_{h=1}^{k} \delta_h Economic\ Growth_{t-h} + \sum_{i=1}^{k} \beta_i Taxation_{t-i} + \sum_{\boldsymbol{j=1}}^{\boldsymbol{k}} \boldsymbol{\gamma_j}\ External\ Borrowing_{\boldsymbol{t-j}} + \sum_{m=1}^{k} \theta_m Officiala\ Development\ Assistance_{t-m} + \mu_{3t}$$

$$External\ borrowing_t = \sigma + \sum_{h=1}^{k} \delta_h Economic\ growth_{t-h} + \sum_{i=1}^{k} \beta_i Taxation_{t-i} + \sum_{j=1}^{k} \gamma_j\ Internal\ borrowing_{t-j} + \sum_{\boldsymbol{m=1}}^{\boldsymbol{k}} \boldsymbol{\theta_m} Officail\ development\ Assistance_{\boldsymbol{t-m}} + \mu_{4t}$$

$$Official\ Development\ Assistance_t = \sigma + \sum_{h=1}^{k} \delta_h Economic\ Growth_{t-h} + \sum_{i=1}^{k} \beta_i Taxation_{t-i} + \sum_{j=1}^{k} \gamma_j\ Internal\ Borrowing_{t-j} + \sum_{m=1}^{k} \theta_m External\ Borrowing_{t-m} + \mu_{5t}$$

Where u_{it} is the error function, σ is the constant and δ, $\beta, \gamma, \theta, \varphi$ and ρ are the coefficients for the variables to be determined. Upon specification of the VECM model, its stationarity was examined using Augmented Dickey Fuller (ADF) test, optimal number of lags was established through use of Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC) and level of cointegration was examined through use of Johansen Cointegration test.

3.7 Diagnostic Tests

The following tests were carried out; they include normality, heteroskedasticity, serial correlation, multicollinearity and stationarity.

3.7.1 Normality Test

Regression modeling is anchored on an assumption that the error term is normally distributed. Normality can be evaluated through graphical or statistical methods. In this study Jarque-Berra test will be adopted and its null hypothesis will state that the error term will be normally distributed against an alternative it is not normally distributed (Shrestha & Bhatta, 2018). The null hypothesis was rejected if the p value will be <0.05. And it may not be normally distributed then there will be need for transformation of the variables.

3.7.2 Heteroskedasticty Test

This is an assumption that the error term has uniform variance. It was tested using white test whose null hypothesis was there is no uniformity of variance of the error term against an alternative that

the error term has no uniform variance. Presence of heteroskedasticity was managed through use of robust standard errors (Gujarati & Porter, 2011).

3.7.3 Serial Correlation Test

This is an assumption that the current period error term is collinear with past period. In this study Breusch Godfrey test with a null hypothesis that there is no first order serial correlation against its presence was applied. If there was serial correlation then Feasible Generalizable Least Squares model ought to be applied (Greene, 2008).

3.7.4 Multicollinearity Test

This is a situation whereby the predictors are highly correlated amongst themselves. In this study it will be evaluated using Variance Inflation Factors (VIFs) and tolerance limits. The cut off will be if the VIFs is greater than 5, then there is multicollinearity and need for model respecification (Gujarati & Porter, 2011).

3.7.5 Stationarity Test

Since the study used time series data, it was necessary to ascertain if the relevant variables are stationary or non-stationary. In contrast to non-stationary series, stationary series has a finite variance, temporary deviations from the mean, and a propensity to return to its mean value (Gujarati & Porter, 1999). In this regard, it is necessary to make sure that the means and variances of the estimated variables are constants independent of time.

With stationary series, this is the situation. If OLS is used to approximate the links between variables in a non-stationary series, there is a chance that the results may lead to false positives or

unpredictable regression issues. Conventional hypothesis tests relying on statistics calculated from such variables are likely to be biased towards accepting the null hypothesis when, in fact, it should. The Augmented Dickey-Fuller unit was used in the study to check for stationarity. These stationarity tests are the most effective and straightforward. These tests account for any potential autocorrelation in the process of making errors. The hypotheses are:

H0: Variables are not stationary

H1: Variables are stationary

In this case, the rejection of H0 for the alternative hypotheses indicates the stationarity of the variables. Additionally, there is a risk of differencing in the ADF; thus, caution must be taken.

3.7.6 Cointegration Test

Whether stochastic or deterministic, trends provide false regression findings, unintelligible student t-values, and other statistics with an excessively high goodness of fit, making it challenging to assess the results. The solution will be to differentially stationaries the data. However, because the model in difference lacks a long-term solution, differencing results in the loss of long-term features. This will be fixed by using the error correction mechanism (ECM) or feedback mechanism in the Cointegration investigation to measure variables in the level form while retaining stationarity incorporating both short-run (impact effect) and long-run features. If the probability will be greater than 0.05, then we fail to reject the null hypothesis and conclude that there will no cointegration equations. If less than 0.05, will be rejected and consequently there will be cointegrating equations. Johansen test for cointegration is applied and if the variables are cointegrated then Vector Error Corrected Model (VECM).

3.7.7 Impulse Response Analysis

Impulse responses estimate the relationship between the studied variable's current and past error terms. The error-current term's value is related to the future values of Xt using impulse response analysis, or vice versa; the error-present terms and past values are related to the current values of Xt. Through analysis, it is possible to determine how a single shock to one of the innovations will affect the endogenous variable's current and future values.

3.7.8 Variance Decomposition

The variance decomposition divides the variation in an endogenous variable into the VECM components after investigating the impact of a one-time shock on one of the innovations on the current and future values of the endogenous variable. Since it assigns weights to each shock detected in the system, the forecast error variance decomposition technique is acceptable if the study intends to discover the proportion of variation that was attributable to its own unique as well as other identified shocks. Although the volatility caused by other variables grows with time horizon, the shocks due to own are high in the near run. In order to ascertain the proportions of economic growth shocks attributable to lagged budget finance variables and, consequently, their influence on economic growth in Kenya, variance decomposition will be used.

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.1 Introduction

The current chapter presents study findings on the relationship between budget financing and economic growth in Kenya. Time series monthly data was collected from July 1999 to December 2022. In this chapter descriptive statistics, pre and post estimation diagnostic tests and Vector Error Corrected Model (VECM) findings, interpretation and discussions are presented.

4.2 Descriptive Statistics

The study set up to examine the relationship between budget financing and economic growth in Kenya. Budget financing was operationalized as taxation, internal borrowing, external borrowing and official development assistance. The average economic growth was 4.31% with a maximum of 8.43% though there were instances when economic growth was inverse. The standard deviation was 2.297 a clear indication of wide variations on the state of economic growth with the period under consideration. Economic growth was not normally distributed since its Jarque Berra coefficient had a p value < 0.05.

The average taxation was 12.327 with a maximum of 14.424 and minimum of 9.2. Taxation was not normally distributed since the p value for Jarque Berra was less than 0.05. The average internal borrowing was 13.628 with a minimum of 12.120 and standard deviation of 0.976. Internal borrowing was not normally distributed Jarque Berra coefficient of 20.875 had a p value < 0.05. The average external borrowing was 13.725 with a maximum of 15.357 and standard deviation of 0.858. Official development assistance has an average of 8.693, with a minimum of 2.320 and

maximum of 11.243. Official development assistance and external borrowing were not normally distributed since there Jarque Berra coefficient had p values < 0.05.

TABLE 2

Descriptive Statistics

	Economic growth	Taxation	Internal borrowing	External borrowing	ODA
Mean	4.310	12.327	13.628	13.725	8.693
Maximum	8.430	14.424	15.314	15.357	11.243
Minimum	-0.872	9.210	12.120	12.651	2.320
Std. Dev.	2.297	1.125	0.976	0.858	1.388
Skewness	-0.465	-0.397	0.170	0.567	-1.736
Kurtosis	2.654	2.665	1.691	1.775	7.056
Jarque-Bera	11.231	8.468	20.875	31.804	325.437
Probability	0.004	0.014	0.000	0.000	0.000
Observations	274	274	274	274	274

4.3 Regression Analysis

Multiple regression analysis was applied to examine the relationship between taxation, internal debt, external debt and official development assistance on economic growth in Kenya. Results in Table 3 indicates that 12.9% of changes in economic growth was accounted for by taxation, internal debt, external debt and official development assistance while the remaining percentage was attributed to other attributes excluded in the model. Taxation has inverse and statistically significant effect on economic (β = -0.664, p value < 0.05). This indicates that unit increase in taxation decreased economic growth by 0.664 units while holding constant internal debt, external debt and official development assistance. Internal debt has positive and statistically significant effect economic growth (β = 3.798, p value < 0.05). This indicates that unit increase in internal debt increases economic growth by 3.798 units while holding constant taxation, external debt and official development assistance.

There was an inverse and statistically significant effect of external debt on economic growth (β=-3.367, p value < 0.05). This implies that unit increase in external debt while holding constant taxation, external debt and official development assistance decreases economic growth by 3.367. Further, there was a positive and statistically significant effect of official development assistance on economic growth in Kenya (β= 0.450, p value <0.05). Thus, unit increase in official development assistance while holding constant taxation, internal debt and external debt increases economic growth 0.450 units. The resultant equation is as follows:

Economic growth = 3.052 - 0.664*Taxation + 3.798*Internal debt – 3.367*External debt + 0.450*Official Development Assistance.

TABLE 3

Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.052	2.383	1.281	0.201
Taxation	-0.664	0.312	-2.124	0.035
Internal debt	3.798	0.696	5.460	0.000
External debt	-3.367	0.686	-4.909	0.000
ODA	0.450	0.169	2.664	0.008
R-squared	0.129	Mean dependent var		4.305
Adjusted R-squared	0.116	S.D. dependent var		2.278
S.E. of regression	2.141	Akaike info criterion		4.379
Sum squared resid	1215.092	Schwarz criterion		4.446
Log likelihood	-586.174	Hannan-Quinn criter.		4.406
F-statistic	9.842	Durbin-Watson stat		0.113
Prob(F-statistic)	0.000			

4.4 Diagnostic Tests

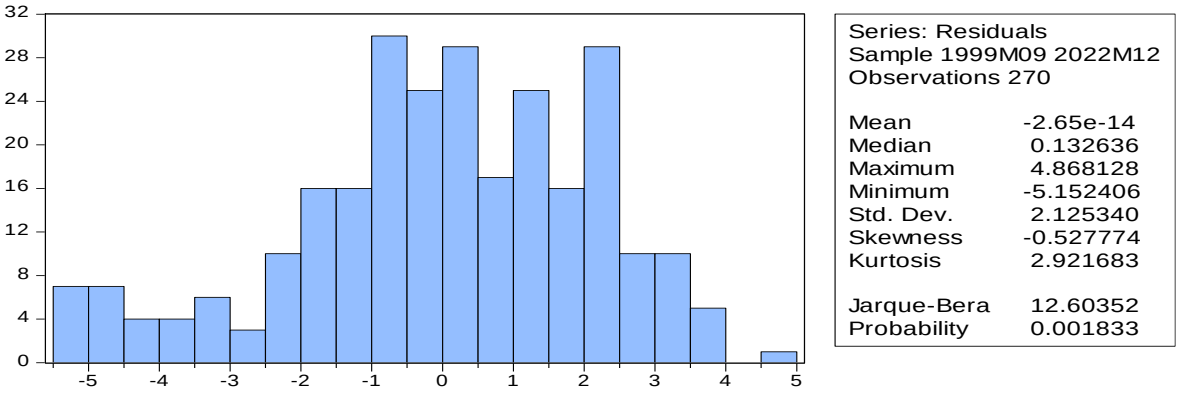
The study carried diagnostics to examine the robustness of the regression in examination of the relationship between budget financing and economic growth in Kenya. The study applied graphical

method to elucidate normality of residuals, Breusch Pagan Godfrey test for heteroskedasticty and Breusch test for serial correlation. Variance Inflation factor and tolerance limits examined multicollinearity of variables. Further, correlation analysis examined the causality of study variables.

4.4.1 Normality Test

FIGURE 3

Normality Test



Normality test of the residuals results in Figure 3 indicates that the error term was not normally distributed since Jarque berra coefficient has p value < 0.05. Standard deviation was greater than 1 though the mean was zero while histogram was not normally distributed.

4.4.2 Serial Correlation Test

Serial correlation was carried to examine the degree of association between current and past period error terms. It had a null hypothesis that there was no serial correlation against an alternative that there was first order serial correlation. Results in Table 4 has an F statistic with p value < 0.05.

Thus, there is enough evidence for rejection of the null hypothesis and conclusion that there was presence of first order serial correlation. Consequently, the need for adoption of alternative method rather than ordinary least squares to examine the relationship between budget financing and economic growth in Kenya.

TABLE 4

Serial Correlation Test

F-statistic	1153.702	Prob. F(2,263)	0.000
Obs*R-squared	242.374	Prob. Chi-Square(2)	0.000

4.4.3 Heteroskedasticity Test

Heteroskedasticity was examined using Breuch-Pagan Godfrey test. The null hypothesis alluded that the error has uniform variance against an alternative that error term was not homoscedastic. Results of the study in Table 5 has F statistic = 0.334, p value >0.05. Thus, we cannot reject the null hypothesis and we conclude that the error term was homoscedastic thus there was no need to fit regression model while using robust standard errors.

TABLE 5

Heteroskedasticity Test

F-statistic	0.334	Prob. F(4,265)	0.855
Obs*R-squared	1.356	Prob. Chi-Square(4)	0.852
Scaled explained SS	1.255	Prob. Chi-Square(4)	0.869

4.4.4 Multicollinearity Test

Multicollinearity was examined using variance inflation factor and tolerance limits. Results in Table 6 indicates that there was a high collinearity between internal debt and external debt since they had VIF greater than 10. Thus, there was need for model respectification through dropping of either of them.

TABLE 6

Multicollinearity Test

	VIF	Tolerance
Taxation	4.96	0.202
Internal debt	24.65	0.04
External debt	20.03	0.05
Official development assistance	2.37	0.42

4.5 Correlation Analysis

Product moment correlation coefficient was carried out to examine the strength of the relationship between taxation, internal debt, external debt and official development assistance. Results in Table 7 indicates that taxation has positive relationship with economic growth (rho = 0.1639, p value < 0.05). Internal borrowing has positive statistically significant relationship with economic growth (rho = 0.1804, p value < 0.05). External borrowing has statistically not significant relationship with economic growth (rho = 0.1130, p value > 0.05).

An examination of the causality between taxation and internal borrowing depicted positive statistically significant relationship (rho = 0.727, p value < 0.05), external borrowing had positive statically significant relationship with taxation and official development assistance had the same. There was a strong positive statistically significant relationship between internal borrowing and

external borrowing (rho = 0.9735, p value < 0.05). This indicates that there was a strong correlation between budget financing. Hence, there was need for model respecification or consideration of alternative methods while examining the relationship between budget financing and economic growth in Kenya.

TABLE 7

Correlation Analysis

	Economic growth	Taxation	Internal borrowing	External borrowing	ODA
Economic growth	1				
Taxation	0.1639	1			
	0.0065				
Internal borrowing	0.1804	0.7237	1		
	0.0027	0.0000			
External borrowing	0.1130	0.6805	0.9735	1	
	0.0618	0.0000	0.0000		
ODA	0.1281	0.6283	0.1667	0.1584	1
	0.0341	0.0000	0.0057	0.0086	

4.6 Time Series Analysis

Since the data violated several regression assumptions and was time series in nature the study applied time series analysis to examine the link between budget financing and economic growth in Kenya. Stationary tests, lag selection and Johansen cointegration was carried out prior to fitting Vector Error Corrected Model (VECM).

4.6.1 Stationarity Test

Augmented Dickey Fuller (ADF) was applied to examine the stationarity of variables under examination. The null hypothesis indicated presence of unit roots (non-stationary) against lack of unit roots (stationarity). Results in Table 8 indicates that only economic growth was stationary at level while taxation, internal borrowing, external borrowing and official development assistance were all stationary at first difference.

TABLE 8

Stationarity Test

	At levels			**At first difference**		
	T	**CV**	**Sig**	**T**	**CV**	**Sig**
Economic growth	-3.15	-2.87	0.024			
Taxation	0.294	-2.87	0.978	-6.33	-2.87	0.00
Internal borrowing	0.80	-2.87	0.993	-8.06	-2.87	0.00
External borrowing	1.394	-2.87	0.999	-18.310	-2.87	0.00
Official development assistance	-2.45	-2.87	0.13	-23.48	-2.87	0.00

4.6.2 Lag Selection Criteria

Regarding lag selection criteria results in Table 9 indicates that the number of optimal lags is two as indicated by sequential modified LR test statistic, final prediction error, Akaike information criterion while Schwarz information criterion and Hannan-Quinn information criterion indicated the option lag to be one.

TABLE 9

Lag Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1585.57	NA	0.082578	11.69538	11.76166	11.72199
1	403.4436	3890.279	4.42E-08	-2.74591	-2.348210*	-2.586247*
2	441.0796	72.22788*	4.03e-08*	-2.838821*	-2.10971	-2.54611

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

4.6.3 Johansen Cointegration

Johansen Cointegration was carried out to examine the long run relationship between budget financing and economic growth in Kenya. The null hypothesis stated that there was no cointegration. Trace test results in Table 10 indicates that there were four cointegration equations. Hence, Vector Error Corrected Model (VECM) was applied to examine the relationship between taxation, internal borrowing, external borrowing and official development assistance on economic growth in Kenya.

TABLE 10

Johansen Cointegration

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.482	531.033	69.819	0.000
At most 1 *	0.429	353.374	47.856	0.000
At most 2 *	0.335	202.236	29.797	0.000
At most 3 *	0.253	92.009	15.495	0.000

Trace test indicates 4 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

4.6.4 Granger Causality

Granger causality was applied to examine the causality of variables under examination in Table 11. It was found that there was no granger causality between taxation and economic growth, economic growth and taxation. There was no causality between internal borrowing and economic growth, economic and internal borrowing. Further, there was no causality between economic growth and external borrowing. There was unidirectional causality between taxation and external borrowing, official development assistance and taxation and official development assistance and external borrowing.

TABLE 11

Granger Causality

Null Hypothesis:	F-Statistic	Prob.
D(Taxation) does not Granger Cause economic growth	0.020	0.980
Economic growth does not Granger Cause D(taxation)	0.004	0.997
D(Internal borrowing) does not Granger Cause economic growth	0.121	0.886
Economic growth does not Granger Cause D(internal borrowing)	0.924	0.398
D(external borrowing) does not Granger Cause economic growth	2.723	0.068
Economic growth does not Granger Cause D(external borrowing)	0.269	0.764
D(ODA) does not Granger Cause economic	0.111	0.895
Economic growth does not Granger Cause D(ODA)	0.052	0.949
D(internal borrowing) does not Granger Cause D(taxation)	1.779	0.171
D(taxation) does not Granger Cause D(internal borrowing)	0.110	0.896
D(external borrowing) does not Granger Cause D(taxation)	10.762	0.000
D(taxation) does not Granger Cause D(external borrowing)	0.086	0.918
D(ODA) does not Granger Cause D(taxation)	0.034	0.967
D(taxation) does not Granger Cause D(ODA)	10.837	0.000
D(external borrowing) does not Granger Cause D(internal borrowing)	0.260	0.771
D(internal borrowing) does not Granger Cause D(external borrowing)	0.059	0.943
D(ODA) does not Granger Cause D(internal borrowing)	0.085	0.918

D(internal borrowing) does not Granger Cause D(ODA)	1.045	0.353
D(ODA) does not Granger Cause D(internal borrowing)	0.086	0.918
D(external borrowing) does not Granger Cause D(ODA)	6.267	0.002

4.6.5 Vector Error Corrected Model

VECM was applied to examine the relationship between budget financing (taxation, internal debt, external debt and official development assistance) on economic growth. Since the selected optimal lag was two, all variables were lagged for two periods. The resultant equation is as follows:

D(Economic growth) = C(1)*(Economic growth(-1) +141.913*D(ODA(-1)) - 4.304) + C(2)*(D(Taxation(-1)) - 0.089*D(ODA(-1)) - 0.007) + C(3)*(D(Internal borrowing(-1)) + 0.0317*D(ODA(-1)) - 0.011) + C(4)*(D(External borrowing(-1)) +0.012*D(ODA(-1)) - 0.009) + C(5) *D(Economic growth(-1)) + C(6)*D(Economic growth(-2)) + C(7)*D(Taxation(-1),2) + C(8)*D(Taxation(-2),2) + C(9) *D(Internal borrowing(-1),2) + C(10)*D(Internal borrowing(-2),2) + C(11)*D(External borrowing(-1),2) + C(12) *D(External borrowing(-2),2) + C(13)*D(ODA(-1),2) + C(14)*D(ODA(-2),2) + C(15)

Results of the study indicates that 19.1% of changes in economic growth was explained by economic growth, taxation, internal borrowing, external borrowing and official development assistance for current and two past periods. The remaining proportion was attributable to extraneous attributes excluded in the model. Further, economic growth lagged for one or two periods have positive statically significant relationship with current period economic growth. Although, taxation has positive relationship it was not significant with economic growth. Moreover, internal borrowing lagged for one or two periods had positive though not statistically significant positive relationship with economic growth. External borrowing and official development had positive though not significant effect with economic growth in Kenya.

TABLE 12

Vector Error Corrected Model

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.0006	0.0009	-0.6328	0.5270
C(2)	0.0445	0.1380	0.3221	0.7474
C(3)	0.8097	3.0614	0.2645	0.7915
C(4)	2.5827	1.8970	1.3615	0.1736
C(5)	0.2873	0.0613	4.6845	0.0000
C(6)	0.2298	0.0616	3.7317	0.0002
C(7)	0.0446	0.1042	0.4278	0.6689
C(8)	0.0374	0.0581	0.6439	0.5198
C(9)	1.9948	2.4385	0.8181	0.4135
C(10)	1.1742	1.7010	0.6903	0.4901
C(11)	0.0352	1.5240	0.0231	0.9816
C(12)	0.4504	1.0087	0.4465	0.6553
C(13)	0.0327	0.0591	0.5536	0.5799
C(14)	0.0252	0.0318	0.7921	0.4284
C(15)	-0.0022	0.0310	-0.0714	0.9431
C(16)	0.0009	0.0013	0.7099	0.4779
C(17)	-1.6309	0.2063	-7.9041	0.0000
C(18)	-4.6323	4.5760	-1.0123	0.3116
C(19)	-11.6329	2.8355	-4.1025	0.0000
C(20)	0.0011	0.0917	0.0119	0.9905
C(21)	0.0198	0.0920	0.2156	0.8293
C(22)	0.3565	0.1557	2.2896	0.0222
C(23)	0.1367	0.0868	1.5739	0.1158
C(24)	0.9666	3.6448	0.2652	0.7909
C(25)	3.9289	2.5425	1.5453	0.1225
C(26)	4.0641	2.2780	1.7841	0.0747
C(27)	0.2124	1.5077	0.1409	0.8880
C(28)	0.0050	0.0884	0.0567	0.9548
C(29)	0.0063	0.0475	0.1322	0.8949
C(30)	0.0039	0.0464	0.0842	0.9329
C(31)	0.0003	0.0000	9.8134	0.0000

C(32)	-0.0048	0.0049	-0.9832	0.3257
C(33)	-1.2870	0.1091	-11.8007	0.0000
C(34)	-0.1195	0.0676	-1.7686	0.0772
C(35)	0.0029	0.0022	1.3429	0.1796
C(36)	0.0000	0.0022	0.0162	0.9871
C(37)	0.0027	0.0037	0.7194	0.4721
C(38)	-0.0001	0.0021	-0.0636	0.9493
C(39)	0.2162	0.0869	2.4889	0.0129
C(40)	0.1748	0.0606	2.8841	0.0040
C(41)	0.0974	0.0543	1.7933	0.0732
C(42)	0.0626	0.0359	1.7419	0.0818
C(43)	-0.0007	0.0021	-0.3382	0.7353
C(44)	0.0002	0.0011	0.1513	0.8798
C(45)	0.0001	0.0011	0.0574	0.9542
C(46)	0.0000	0.0001	0.8070	0.4198
C(47)	0.0073	0.0081	0.9055	0.3654
C(48)	0.1712	0.1787	0.9581	0.3382
C(49)	-0.9664	0.1108	-8.7261	0.0000
C(50)	-0.0011	0.0036	-0.3194	0.7495
C(51)	-0.0031	0.0036	-0.8492	0.3959
C(52)	-0.0047	0.0061	-0.7708	0.4410
C(53)	-0.0012	0.0034	-0.3580	0.7204
C(54)	-0.1782	0.1424	-1.2518	0.2109
C(55)	-0.1488	0.0993	-1.4986	0.1342
C(56)	-0.1222	0.0890	-1.3732	0.1699
C(57)	-0.0974	0.0589	-1.6542	0.0983
C(58)	0.0001	0.0035	0.0308	0.9754
C(59)	-0.0009	0.0019	-0.4933	0.6219
C(60)	0.0001	0.0018	0.0313	0.9751
C(61)	-0.0128	0.0023	-5.4913	0.0000
C(62)	1.2299	0.3667	3.3536	0.0008
C(63)	-7.0238	8.1329	-0.8636	0.3880
C(64)	-11.5346	5.0396	-2.2888	0.0223
C(65)	0.0398	0.1629	0.2446	0.8068
C(66)	0.0606	0.1636	0.3703	0.7113
C(67)	-0.5012	0.2767	-1.8111	0.0704
C(68)	-0.1402	0.1544	-0.9085	0.3638
C(69)	3.4334	6.4780	0.5300	0.5962
C(70)	9.0609	4.5188	2.0051	0.0452
C(71)	1.7878	4.0487	0.4416	0.6589
C(72)	-2.3749	2.6797	-0.8862	0.3757
C(73)	0.6384	0.1571	4.0643	0.0001
C(74)	0.2119	0.0845	2.5078	0.0123
C(75)	0.0023	0.0825	0.0278	0.9778

D(Economic growth) = C(1)*(Economic growth(-1) +141.913*D(ODA(-1)) - 4.304) + C(2)*(D(Taxation(-1)) - 0.089*D(ODA(-1)) - 0.007) + C(3)*(D(Internal borrowing(-1)) + 0.0317*D(ODA(-1)) - 0.011) + C(4)*(D(External borrowing(-1)) +0.012*D(ODA(-1)) - 0.009) + C(5) *D(Economic growth(-1)) + C(6)*D(Economic growth(-2)) + C(7)*D(Taxation(-1),2) + C(8)*D(Taxation(-2),2) + C(9) *D(Internal borrowing(-1),2) + C(10)*D(Internal borrowing(-2),2) + C(11)*D(External borrowing(-1),2) + C(12) *D(External borrowing(-2),2) + C(13)*D(ODA(-1),2) + C(14)*D(ODA(-2),2) + C(15)

R-squared	0.191	Mean dependent var	0.000
Adjusted R-squared	0.147	S.D. dependent var	0.552
S.E. of regression	0.510	Sum squared resid	66.244
Durbin-Watson stat	2.055		

D(Taxation,2) = C(16)*(Economic growth(-1) + 141.914*D(ODA(-1)) - 4.305) + C(17)*(D(Taxation(-1)) - 0.089*D(ODA(-1)) - 0.007) + C(18)*(D(Internal borrowing(-1)) + 0.032*D(ODA(-1)) -0.011) + C(19)*(D(External borrowing(-1)) +0.012*D(ODA(-1)) - 0.009) + C(20)*D(Economic growth(-1)) + C(21)*D(Economic growth(-2)) + C(22)*D(Taxation(-1),2) + C(23)*D(Taxation(-2),2) + C(24)*D(Internal borrowing(-1),2) + C(25)*D(Internal borrowing(-2),2) + C(26)*D(External borrowing(-1),2) + C(27) *D(External borrowing(-2),2) + C(28)*D(ODA(-1),2) + C(29) *D(ODA(-2),2) + C(30)

R-squared	0.6634	Mean dependent var	-0.0004
Adjusted R-squared	0.6449	S.D. dependent var	1.2784
S.E. of regression	0.7618	Sum squared resid	148.0020
Durbin-Watson stat	1.9735		

D(Internal borrowing,2) = C(31)*(Economic growth(-1) + 141.914*D(ODA(-1)) - 4.305) + C(32)*(D(Taxation(-1)) - 0.089*D(ODA(-1)) - 0.007) + C(33)*(D(Internal borrowing(-1)) + 0.032*D(ODA(-1)) - 0.011) + C(34)*(D(External borrowing(-1)) + 0.012*D(ODA(-1)) - 0.009) + C(35)*D(Economic growth(-1)) + C(36)*D(Economic growth(-2)) + C(37)*D(Taxation(-1),2) + C(38)*D(Taxation(-2),2) + C(39) *D(Internal borrowing(-1),2) + C(40)*D(Internal borrowing(-2),2) + C(41)*D(External borrowing(-1),2) + C(42) *D(External borrowing(-2),2) + C(43)*D(ODA(-1),2) + C(44) *D(ODA(-2),2) + C(45)

R-squared	0.5585	Mean dependent var	-0.0001
Adjusted R-squared	0.5343	S.D. dependent var	0.0266
S.E. of regression	0.0182	Sum squared resid	0.0841
Durbin-Watson stat	1.9286		

D(External borrowing,2) = C(46)*(Economic growth(-1) + 141.913*D(ODA(-1)) - 4.305) + C(47)*(D(Taxation(-1)) - 0.089*D(ODA(-1)) - 0.007) + C(48)*(D(Internal borrowing(-1)) + 0.0318*D(ODA(-1)) - 0.011) + C(49)*(D(External borrowing(-1)) + 0.012*D(ODA(-1)) - 0.009) + C(50)*D(Economic growth(-1)) + C(51)*D(Economic growth(-2)) + C(52)*D(Taxation(-1),2) + C(53)*D(Taxation(-2),2) + C(54)*D(Internal borrowing(-1),2) + C(55)*D(Internal borrowing (-2),2) + C(56)*D(External borrowing (-1),2) + C(57) *D(External borrowing (-2),2) + C(58)*D(ODA(-1),2) + C(59) *D(ODA(-2),2) + C(60)

R-squared	0.5567	Mean dependent var	0.0002
Adjusted R-squared	0.5324	S.D. dependent var	0.0435
S.E. of regression	0.0298	Sum squared resid	0.2258
Durbin-Watson stat	2.0196		

D(ODA,2) = C(61)*(Economic growth(-1) + 141.914*D(ODA(-1)) - 4.305) + C(62)*(D(Taxation(-1)) - 0.089*D(ODA(-1)) - 0.007) + C(63)*(D(Internal borrowing(-1)) +

0.0317*D(ODA(-1)) - 0.011) + C(64)*(D(External borrowing(-1)) + 0.012*D(ODA(-1)) - 0.009) + C(65) *D(Economic growth(-1)) + C(66)*D(Economic growth(-2)) + C(67)*D(Taxation(-1),2) + C(68)*D(Taxation(-2),2) + C(69) *D(Internal borrowing(-1),2) + C(70)*D(Internal borrowing(-2),2) + C(71)*D(External borrowing(-1),2) + C(72) *D(External borrowing(-2),2) + C(73)*D(ODA(-1),2) + C(74) *D(ODA(-2),2) + C(75)			
R-squared	0.7072	Mean dependent var	0.0004
Adjusted R-squared	0.6911	S.D. dependent var	2.4363
S.E. of regression	1.3540	Sum squared resid	467.5102
Durbin-Watson stat	2.0552		

4.7 Post Estimation Analysis

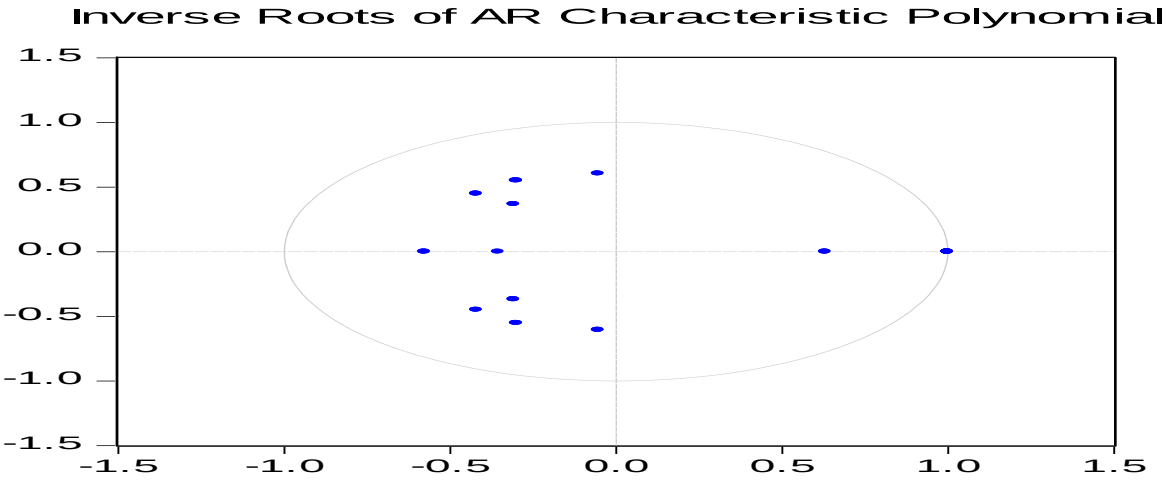
Post estimation analysis was carried to examine the stability of the model. The study applied stability and heteroskedasticity tests.

4.7.1 Roots Characteristics Polynomial

Pictorial presentation in Figure 4 indicates that the roots characteristics were unit hence the model was stable.

FIGURE 4

Roots Characteristics Polynomial



4.7.2 Post Estimation Heteroskedasticity Test

Heteroskedasticity tests indicated that there was uniformity of the variance of error term since the p value > 0.05.

TABLE 13

Post Estimation Heteroskedasticity Test

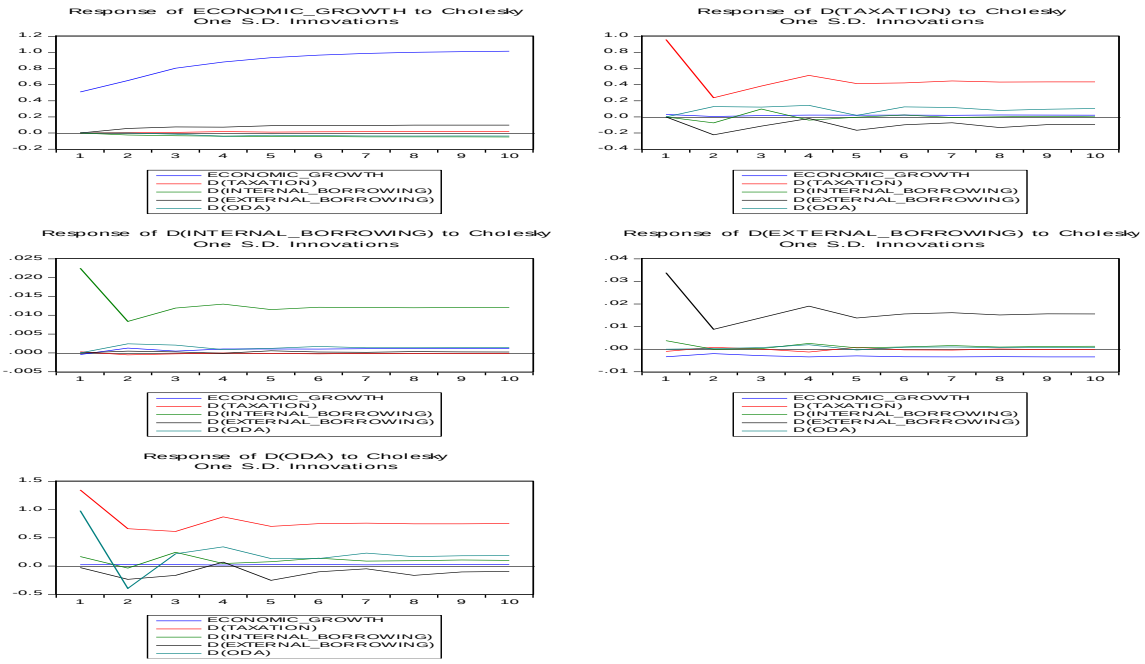
Chi-sq	df	Prob.
43.9453	330	0.07

4.7.3 Impulse Response

Pictorial presentation in Figure 5 indicates that economic development responds to shocks of taxation, internal debt, external debt and official development assistance. There was a positive shock of taxation, internal borrowing, external borrowing and official development assistance on economic growth in Kenya.

FIGURE 5

Impulse Response

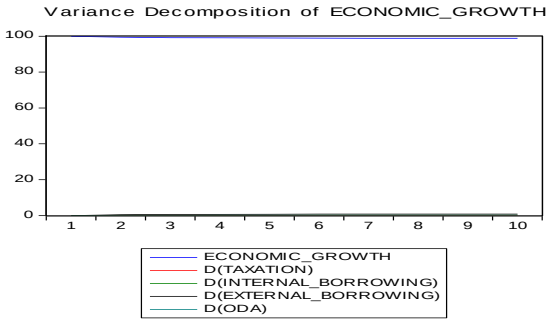


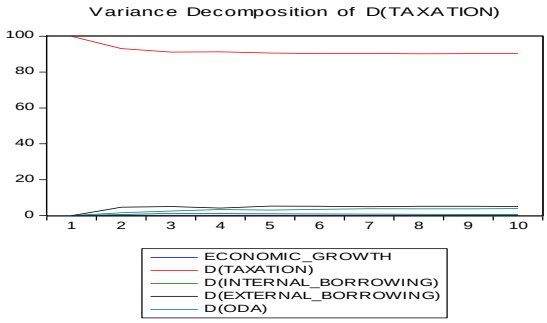
4.7.4 Variance Decomposition

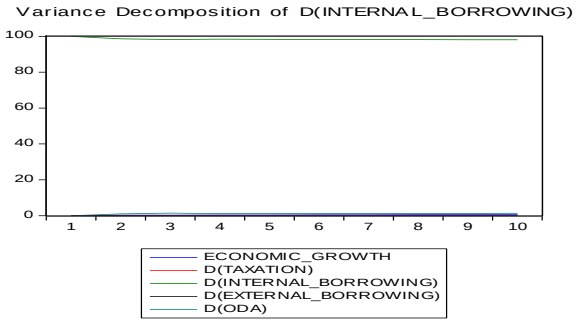
The study findings in Figure 6 indicates that variance due to shocks was 100% initially and it declines with notable changes in response to changes in taxation, internal borrowing, external borrowing and official development assistance.

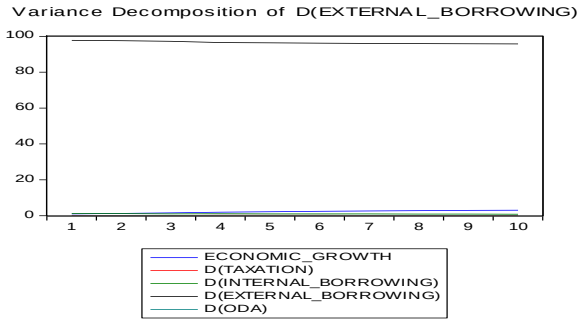
FIGURE 6

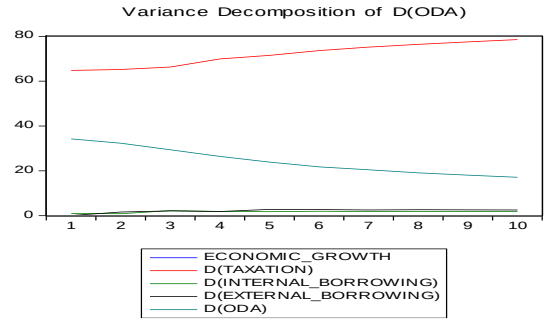
Variance Decomposition











4.8 Discussions

The current study aimed at responding to methodological, conceptual, contextual and empirical gaps that arose from past studies that had explored the effect of budget financing and economic growth. Methodologically, though, some studies had considered time series data they never justified adoption of regression for examination of the link between study variables. Conceptually, studies have applied alternative measures of budget financing which may have yielded mixed findings. Contextually, studies have been carried out in different contexts whose state of economic development was not homogenous. From the findings it was found that

4.8.1 Taxation and Economic Growth

The first objective of the study determined the effect of taxation on economic growth in Kenya. Regression and correlation analysis indicated that there was a statically significant relationship between taxation and economic growth in Kenya. VECM indicated that taxation has no statistically significant relationship between taxation and economic growth in Kenya. The study differed with Gurdal et al. (2021) who demonstrated a unidirectional connection between tax income and government spending but a two-way causality between economic expansion and government spending. Further, there was no causality between tax revenue and economic growth. The study concurred with existence of a long-run correlation between economic development and government expenditure. The results concurred with Abdin (2018) who demonstrated that taxes are the government's primary income source. Since, government capacity to provide services is dependent on taxation revenue collection capacity.

The study contradicts with Zpennce and Mercan (2020) who found that increase in taxation erodes economic development. Further, increased public expenditure is associated with diminished economic evolutions. Stoilova and Todorov (2021) found that whereas economic growth, exports, and gross capital formation are favorably correlated with economic development, direct tax revenue harms the real output growth rate. Nwanakwere (2019) found that excise and customs duties (ECD), petroleum profit tax (PPT), value-added tax (VAT), corporation income tax (CIT), and value-added tax (CIT) before analyzing each one's impact on economic growth. Ali, Dalmar, and Ali (2018) revealed that loans and other sources of income have no detrimental effects on growth.

4.8.2 Internal Borrowing and Economic Growth

The second objective of the study assessed the relationship between internal borrowing and economic growth in Kenya. Results of the study indicated that there was positive significant relationship between internal borrowing and economic growth in Kenya. The study findings agreed with Misztal (2021) who demonstrated that the budget deficit and public debt both favorably impact the nation's economic growth, primarily due to the multiplier effect of the budget expenditures. These results in support of neoclassical economic thoughts. They contradict Ricardian equivalence theory that alludes that budget deficit financing adversely affects economic growth. The study supports Obi (2022) who found that foreign debt hinders economic growth. Hence, there is need for government to evaluate the strategies and measures adopted to expand its service provision capabilities. Husain (2019) asserted that only debt-fueled economic expansion. The results demonstrate that both in the short and long terms, public debt has a significant impact on economic growth. Hence, there is need for government to consider borrowing so as to finance it budget gaps.

The findings concur with Ssempala et al. (2020) who argues that decrease in reliance with debt is beneficial to an economy though it may have adverse effect in the long run. Further, reliance with borrowed funds limits resources availability within the short run. Further, internal borrowing may deter access to debt amongst private players since commercial banks may have preference for government securities which are deemed to have lower risk of default. Murungi and Okiro (2018) cautioned on use of domestic borrowing to finance budget deficits since they attract higher interest costs as compared to external debt. To minimize reliance on domestic debt there is need for adoption of public private partnership while undertaking infrastructural projects. Moreover,

government may consider undertaking joint investment project with pension and mutual funds since they have access to regular contributions.

4.8.3 External Borrowing and Economic Growth

The third objective examined the relationship between external borrowing and economic growth. Results of the study indicated that external borrowing have statistically significant relationship with economic growth. Ojambo (2019) asserts that in Uganda reliance with external borrowing is inevitable since there is need to seek finance for budget deficits through concessional and non-concessional debts. Incorporation of external financing should be exercised with case since increased external borrowing may have inverse effect on economic growth especially local currency depreciates or principal interest rates are increased. The study contradicts Shkonlik and Koilo (2018) who alluded that there was a non-linear relationship between external debt and economic growth in developing economies. Increased use of external debt was blamed to escalation of economic volatility and limitation of economic growth. Thus, there is need for sensitivity analysis prior to borrowing so as to minimize odds associated with negative impact of external borrowing to an economy. Further, Teng (2021) asserted that reliance with foreign aid and concessional debts have significant contribution on economic development in African continent. Furthermore, there was a positive association with concessional debts and foreign aids hence there is need for adoption for mechanisms that would stimulate foreign direct investment so as to complement economic growth linked with use of concessional loans.

Developing and developed economies are congruence on their pursuance of economic growth and development. These efforts are geared towards elimination of poverty and provision of reliable infrastructure. According to Okon (2012) there is renewed efforts to amplify provision of

development assistance inform of loans and guarantee. This would aid in bridge resources gaps evidence in developing economies due to unemployment, low levels of industrial development, unbalanced resources utilization, poverty levels, social exclusion, poor economic policies and inequitable distributions of resources (Modou, & Liu, 2017). Although, there are documented success cases of multilateral DFIs for example economic development in South Korea, North Korea, China etc, African cases are not worth reporting on since resources allocations is characterized by corruption, mismanagement and total disregard to professional ethics (Fasanya & Onakoya, 2012).

Further, Sampa (2020) alluded that in Tanzania external debt is a pivotal source of economic development. Though, external debt has significant contribution on economic development it was commended that there is need for consideration of manageable debt levels that will not constrain projects been undertaken. Katib (2021) demonstrated that Liberia's trajectory has changed since receiving debt relief in 2010 and they have started employing non-concessional loans, which hindered the government's ability to repay its debts.

4.8.4 Official Development Assistance and Economic Growth

The fourth objective examined the relationship between official development assistance and economic growth in Kenya. The study found that official development assistance has significant effect on economic growth in Kenya. The study findings differed with Awino and Kioko (2022) who found that though official development have effect on economic development it was not significant. The study was in support of Lee et al. (2020) who demonstrated that official development may have direct or indirect impact on economic growth. There is need for adoption of frameworks that depicts the valuation of environmental aspects such as carbon emission so as

to optimize their value contribution in economic development. Kondu et al. (2016) reported inverse effect of reliance of external financing on economic growth due to interest payments and currency in which loans were denominated.

Further, the study supported Ese et al. (2020) who found that foreign aid has positive significant effect on economic growth in Nigeria. Thus, there is need for consideration to undertake those economic projects that have significant value contribution on national income. Naeruz, Afiffudin, Ruslan, and Syafii (2022) indicated that E-money has a negative and considerable impact on economic growth, that interest rates and exchange rates also impact it, and that technology has a beneficial impact. Hence, there is need for consideration of financial approaches that would stimulate economic growth and eradicate spillage of economic resources in developing economies. Ocharo and Musyoka (2018) results demonstrated that competitiveness positively and significantly affects foreign direct investment entering Kenya. Thus, there is need for consideration of official development assistance so as to stimulate economic growth and maximize value benefits associated with respective resources.

Developing economies poverty level due to huge expenditure on consumption eliminating likelihood of saving has led to low levels of investment and economic development (Sakong, 2018). This has confirmed vicious cycle of poverty which can only eliminated through multilateral DFIs assistance and lending. Consequently, developing countries have to borrow or seek foreign assistance to achieve development goals and eradicate poverty traps (Inomjom, 2018). Development assistance may be achieved through resources transfer in public and private sectors of developing economies, technical support, provision of concessional financial assistance, public private partnership (Mbah, & Amassoma, 2014). The challenge of this assistance is its inability to

achieve economic goals due to misappropriation of funds, corruption, lack of technical skills and uncoordinated development goals (Wanjiku, 2016).

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides the summary of findings, conclusion and the recommendations drawn from the results of the study on the relationship between budget financing and economic growth in Kenya.

5.2 Summary of Major Findings

Research summary based on the study objectives will be presented below. The first objective of the study examined the relationship between taxation and economic growth in Kenya. Results of the study indicated that taxation inversely affected economic growth in Kenya. Hence, increased levels of taxation deterred economic growth in Kenya. This may be attributed to increased incidences of tax avoidance and evasion. Further, increased taxation may contradict tax equity principle.

The second objective of the study examined the relationship between internal borrowing and economic growth in Kenya. It was documented that internal borrowing has significant relationship with economic growth in Kenya. There is need for examination of caution on cost of internal borrowing so as to minimize the cost of private sector debt access. Increased internal borrowing may have multiplier effect on macro-economic aspects that will ultimately impact economic growth inversely.

The third objective examined relationship between external borrowing and economic growth in Kenya. It was documented that external borrowing has inverse relationship with

economic growth in Kenya. Hence, positive changes in external borrowing inversely affects economic growth in Kenya an aspect that may be associated with allocation of borrowed in economic activities.

The fourth objective evaluated the relationship between official development assistance and economic growth in Kenya. It was found that official development has statistically significant relationship with economic growth in Kenya. Thus, there is need for consideration of development assistance in projects that would have positive impact on economic growth in developing economies. Further, official development assistance should be deployed in projects that have multiplier effect on antecedents of economic growth.

5.3 Conclusion

From the study findings the following conclusions can be drawn. Taxation has inverse contribution on economic growth. Thus, increased amount of revenue generated from taxation impacted economic growth inversely. Hence, it can be deemed to be double edged where increased taxation was associated with changes in its administrative costs and spillage of revenue collected. Therefore, there is need for evaluation of taxation value chain as such to optimize revenue taxation collection and allocation in projects that support economic growth.

Since, internal borrowing have relationship with economic growth. It can be concluded that there is need for evaluation of internal borrowing costs by the government since increased borrowing costs of treasury bills and treasury bonds whose risk of default is low compared to individual borrows may constrain access to private capital. The government may consider undertaking their infrastructural projects through alternative financing models.

Thirdly, external borrowing has a relationship with economic growth in Kenya. There is need for consideration of borrowing costs and contractual currency since there are instances in which local currency may depreciate its value and it will impact repayment amount. Further, there is need for verification of economic value of projects been financed through external borrowing, this may aid in mitigating financial losses due to corruption and exaggeration of project costs.

The fourth objective indicated that there was a relationship between official development assistance and economic growth in Kenya. From the findings it can be concluded that reliance on official development assistance has effect on economic growth in Kenya. It can be concluded that project grants and development assistance was allocated in projects that affected project development positively. Hence, there is need for evaluation of projects that may have significant contribution on economic development and allocate resources optimally.

5.4 Recommendations

This part avails general and policy recommendations that are anchored on study findings. General recommendations are based on study outputs and policy recommendations depicts how the study findings is beneficial to heterogenous stakeholders.

5.4.1 General Recommendations

The results of the study indicated taxation inversely affects economic growth in Kenya. Thus, it can be recommended that there is need for adoption of matching taxation policies that would escalate tax collection strategies and minimize spillage of resources. Further, there is need for adoption of taxation policies that may stimulate private sector investment so as to alter resources under employment.

Secondly, internal borrowing has significant effect on economic growth in Kenya. Thus, it can be recommended that there is need for consideration of seeking internal debts via treasury bills and bonds though it ought to undertake it very cautiously since it may trigger skewed borrowing from the private sector. Credit access reduction among the private stakeholders may deter access to private capital that may stimulate economic growth through investment in sectors where government may not operate optimally. Further, the government may develop fiscal and monetary policies that may enhance credit creation of financial institutions and decrease interest costs.

Further, external borrowing has a relationship with economic growth in Kenya. Thus, it can be recommended that there is need for consideration of external borrowing that would be cheaper and available for a longer period of time. Further, there is need for pursuance of loan contracts that presents flexible payment so as to allow for renegotiations especially when there are project overlays or there are delays in generation of revenue from respective projects that has been undertaken.

Finally, positive relationship between official development assistance and economic growth in Kenya. It can be recommended that there is need for development of strategies that would guide in fund raising of grants for undertaking projects that will have social economic benefit. Further, there is need for establishment of a department for fund raising in respective government ministries.

5.4.2 Policy Recommendations

From findings, policy makers in treasury and planning department in Kenya should develop policies, strategies and mechanisms aimed at stimulating economic growth and development.

Through, treasury and planning department, alternative budget financing models may be simulated and those that have higher value contribution in economic growth be deployed. Since there are alternative mix of financing then the developing economies should optimize their financing approaches to their needs and eradicate reliance on expensive sources of financing. Even though, taxation has inverse effect there is need for policy development on increasing tax base especially among those in the informal sector and ultimately minimize burdening those in the formal sector.

The executive and legislators in Kenya are mandated with budget making process. To enhance strategies aimed at minimizing budget financing gaps there is need for adoption of participatory budget making process. Further, executive should adopt technology-based revenue collection from alternative streams so as to minimize over reliance with minimal sources of revenue for instance, there is need for development of mobile based tax collection streams from informal and juakali sectors. They may be charged minimal daily charges such as Ksh 50 from which database can be created that will ultimately incorporate them in the right taxation brackets. Moreover, there is need for adoption of mechanisms to match income and purchases statistics of respective country citizens.

The study is crucial to the treasury department since they will better understand the role of internal and external borrowing on economic growth in Kenya. The study may guide monetary and fiscal policy committees in Central Bank of Kenya through exploration of internal and external borrowing value contribution in the economy. From the study those departments mandated with debt negotiations would be better informed on whether to value contribution of internal and external debt borrowing. To enhance debt management practices, understanding of how internal and external debts affects the economy would better guide on their optimal mix. The discovery of

this study is helpful to managers of financial institutions such as commercial banks, insurance companies, social security fund and micro finance institutions. Since they will better understand on critical factors to consider prior to investing in government securities.

5.5 Suggestions of Further Studies

The current study was limited to monthly data though in the initial period it was intermittent. Hence, there is need for consideration of data that have complete periods. Subsequent studies may consider broadening debt financing sourcing through consideration of internal sources of revenue and since Kenya has devolved system of governance there is need for consideration of exploration of effect of internal generated revenue on economic value contribution in respective counties. Since the study was localized there is need for consideration of subsequent empirical enquiries upon drawing data from Africa or East Africa so as to evaluate commonalities and differences. Moreover, the current study was limited to direct effect of budget financing on economic growth. There is need for consideration of mediation and moderation effect of attributes such as government policies and state of economic development. In addition, there is need for adoption of mixed methods research design so as to complement hurdles associated with use of quantitative data.

5.6 Limitations of the Study

The study was anchored on optimal tax theory, modern theory of money and debt overhang theory. These theories had shortcoming as alluded by past studies. To address these limitations heterogenous empirical literature was unearthed to depict their contrasting arguments. This aided in supporting selected theories for the study.

There was conceptual limitation in the study as evidenced by selected of variables measurement for instance some variables such as taxation and official development assistance were operationalized with single measures while internal and external borrowing were calculated as summation of treasury bills and treasury bonds and concessional and non-concessional loans respectively. Thus, it may have been appropriate to consider fragmented measures so as to elucidate independent source of finance contribution on economic growth and development. Further, the variables of measurement in the study were in two scales whereby economic growth was measured in ratio scale while independent variables were in interval scale. Thus, there is need for subsequent scholars to consider variables in homogeneous scale of measurement.

Contextually the study has limitations since budget financing has alternative sources of finance such internal fees, fines, penalties and revenue generated through government investment in listed corporation. Thus, consideration of only four sources of budget financing may have precipitated yielding of model with small prediction power. Thus, there is need for broadening the study so as to factor in other budget deficit approaches. Further, the study was limited to only 21 years with intermittent timing especially in 1999 and 2000. Consequently, there is need for broadening the study period and consideration of complete monthly data set.

The study faced methodological limitations associated with lack of quarterly for all period from 1990 which was aimed to be the initial period for empirical examination. Consequently, the study time period was adjusted to 1999 July though 1999 and 2000 did not have data for all months. Further, there were variables whose data had gaps and they were filled through frequency conversion from lower to higher frequencies.

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APPENDICES

Appendix I Secondary Data Collection Sheet

Year	Month	Economic Growth	Taxation (Revenue from all taxes)	Internal Borrowing (Bonds + Treasury Bills)	External Borrowing (Concessional + Non-	ODA
1999	7					
	8					
	9					
	10					
	11					
	12					
2000	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
2001	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					

	12					
2002	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
2003	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
2004	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					

2005	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	.					
	.					
	.					
2022	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					