MODERATING ROLE OF FOREIGN DIRECT INVESTMENT ON THE RELATIONSHIP BETWEEN MACROECONOMIC FACTORS AND DEVELOPMENT EXPENDITURE IN KENYA

By

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DECLARATION

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

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

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And have certified that all revisions that the dissertation panel and examiners recommended have been adequately addressed.

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ABSTRACT

In Kenya, despite a projected GDP growth of 5.4% in 2025, up from 4.6% in 2024, the country faces challenges in effectively utilizing allocated development funds (KNBS, 2024). In the first half of the 2023/24 fiscal year, only 25.2% of the allocated development budget was absorbed by Ministries, Departments, and Agencies, indicating significant underutilization. This study aimed to identify trends, relationships, and potential causal effects between the variables by analyzing historical data over a period of time. The objective is to explore how fluctuations in interest rates, inflation, and exchange rates influence government development expenditure and the moderating role that FDI plays in this dynamic relationship. The development expenditure was measured in terms of government spending on infrastructure, education, healthcare, and other long-term development projects. The study was be guided by theories such as the Wagner's Law of Increasing State Activity, Keynesian Theory of Government Expenditure and Fiscal Illusion Theory, which examines how FDI impacts economic growth and development, and the Keynesian Theory, which highlights the importance of government expenditure in responding to macroeconomic challenges. The research adopted an exploratory study design where time series analysis was conducted to explain the significance of the relationship between the independent variables of the study on the dependent variables. The study concludes that interest rates have a negative and significant effect on development expenditure in Kenya. In addition, the study concludes that exchange rate fluctuations have a negative and significant effect on development expenditure in Kenya. Further, the study concludes that inflation rates have a negative and significant effect on development expenditure in Kenya. The study also concludes that Foreign Direct Investment has a negative and significant effect on the relationship between macroeconomic factors (interest rate, exchange rate, and inflation rate) and development expenditure in Kenya. Based on the findings the study the government of Kenya should strengthen inflation control measures through prudent fiscal discipline and effective monetary policies, so as to safeguard development expenditure. High inflation erodes the real value of allocated funds, leading to escalating project costs and delays in implementation. The study also recommends that that the government of Kenya should create a more stable and investor-friendly macroeconomic environment that aligns Foreign Direct Investment (FDI) with national development priorities.

Key words: Inflation, Exchange rates, Interest rates, Foreign Direct Investment and Development expenditure

DEDICATION

I dedicate this research to my dear family and supervisor whose unwavering support, encouragement and inspiration have been my greatest motivation throughout this journey. To my mentors whose guidance and wisdom have shaped my academic growth and to those who seek knowledge and strive for excellence may this work contribute to the collective pursuit of learning and discovery.

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OPERATIONAL DEFINITION OF TERMS

Development expenditure: Refers to government spending that is directed toward long-term projects and investments aimed at enhancing a country's productive capacity, infrastructure, and overall socio-economic development (Chen, *et al*., 2020).

Exchange Rate: Is the price at which one currency can be exchanged for another. It indicates how much of a foreign currency you can get with a unit of your local currency and is a key determinant in international trade, investment, and economic policy (Liu & Xie, 2023).

Foreign Direct Investment (FDI): Refers to an investment made by an individual, company, or government entity from one country into business interests located in another country. It typically involves acquiring a lasting interest in or a significant degree of influence over a foreign enterprise (Olokoyo *et al*., 2020).

Inflation Rate: Is the percentage change in the general price level of goods and services in an economy over a specific period, typically measured on a monthly or annual basis. It reflects how quickly prices are rising and is a key indicator of the purchasing power of a currency (Sabbaghi & Sabbaghi, 2018).

Interest Rate: Refers to the cost of borrowing money or the return earned on savings or investments, expressed as a percentage of the principal amount over a specific period—usually annually. It is the price paid by borrowers to lenders for the use of funds (Kotlebova, *et al*., 2020).

ACRONYMS AND ABBREVIATIONS

CBK: Central Bank of Kenya

CBN: Central Bank Rate

CBR: Central Bank Rate

CFS: Consolidated Fund Services

EAC: East African Community

ESG: Environmental, Social, and Governance

FDI: Foreign Direct Investment

KNBS: Kenya National Bureau of Statistics

LAPSSET: Lamu Port-South Sudan-Ethiopia-Transport

PCE: Personal Consumption Expenditures

PPPs: Public-private partnerships

RER: Real Exchange Rate

SGR: Standard Gauge Railway

UNCTAD: UN Trade and Development

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Foreign Direct Investment (FDI) refers to cross-border investment by entities in one country into business interests located in another, typically involving significant ownership and management control (Wagner, & Weber, 2020). It is widely regarded as a vital catalyst for economic development, particularly in developing economies, where it supplements limited domestic savings and finances critical sectors. FDI brings not only capital but also transfers advanced technology, managerial expertise, and access to global markets—elements crucial for productivity enhancement and structural transformation (Sujianto, & Azmi, 2020). The inflow of FDI is closely influenced by macroeconomic variables such as infrastructure quality, inflation rates, interest rates, political stability, fiscal and monetary policy, and regulatory certainty (Nasir, 2022). For instance, sound macroeconomic management enhances investor confidence, while poor infrastructure and volatile inflation can deter long-term commitments. In 2023, global FDI flows reached USD 1.37 trillion—a modest recovery from pandemic-induced contractions, though still below the pre-COVID-19 average of USD 1.5 trillion (UNCTAD, 2024). However, the distribution of these inflows remains highly uneven, with Africa capturing just 3.5% of the global share, reflecting persistent macroeconomic and institutional challenges that impede the continent’s capacity to attract and retain foreign capital (Reinhart, & Calvo, 1999).

A vital part of national budgets, development expenditure has a direct impact on a nation's long-term economic viability, social services, and infrastructure development (Ahuja, & Pandit, 2020). Nonetheless, macroeconomic variables like inflation, interest rates, exchange rate swings, and fiscal deficits have a big influence on this spending. These macroeconomic factors have the power to either facilitate or limit governments' ability to provide funding for development initiatives. Foreign Direct Investments (FDIs) are emerging as potential

moderating agents in this dynamic environment that can lessen the negative effects of unfavorable macroeconomic conditions (Ateng, & Arunga, 2020). In addition to boosting domestic capital formation, consistent foreign direct investment inflows can also reduce economic uncertainty, allowing governments to keep or even increase development spending levels in the face of macroeconomic volatility. FDIs have been crucial in advancing development agendas around the world, especially in emerging and developing nations (Bulus, & Koc, 2021). Through technology transfer, job creation, and higher tax revenues, foreign direct investments (FDIs) have played a significant role in increasing public investment in regions like Southeast Asia and parts of Latin America. Global commodity prices, regulatory frameworks, and political stability have all had an impact on the varying FDI trends observed in sub-Saharan Africa (Demir, & Razmi, 2022).

Macroeconomic stability and the flow of foreign investments are being increasingly impacted by emerging global issues (Xavier, Elias & Nazar, 2024). These difficulties make it more difficult for governments to plan their budgets, especially in developing nations that depend significantly on outside funding. At the same time, development budgets are under additional strain due to rising debt loads and commodity price volatility (Dornbusch, 1984). Knowing how FDIs act as a buffer in this situation is crucial. Maintaining vital development programs may depend heavily on FDIs' capacity to act as a buffer against fiscal shocks or falling domestic revenues (Ebeke, & Fouejieu, 2020).

Regionally, Sub-Saharan Africa has increasingly acknowledged the strategic role of Foreign Direct Investment (FDI) in bridging the widening resource gap necessary for financing development initiatives (Bosede et al, 2020). With limited domestic savings, constrained fiscal space, and rising debt burdens, FDI offers an alternative, sustainable source of capital that can fund critical infrastructure, create employment, and transfer skills and technology (Sader, 2000). According to the African Development Bank (AfDB, 2024), Sub-Saharan Africa

attracted approximately USD 53 billion in FDI inflows in 2023, with Nigeria, South Africa, and Ethiopia accounting for a significant share due to their market size, natural resource endowments, and ongoing structural reforms. East African economies, while showing promising growth trends, continue to lag behind in attracting large-scale foreign investments. For example, although Kenya's FDI inflows increased to USD 1.4 billion in 2023, up from USD 1.2 billion in 2022, these figures remain low relative to the country's development financing needs, which exceed KES 3.6 trillion annually according to the National Treasury. The modest inflows reflect both the potential and the limitations of East Africa's investment climate, which is shaped by regulatory environments, infrastructure readiness, political stability, and macroeconomic management (Sinha, 2023).

However, the effectiveness of FDI in supporting development in the region is frequently undermined by persistent macroeconomic instability (Albulescu & Ianc, 2016). Fluctuating interest rates, volatile exchange rates, and sustained inflationary pressures introduce significant investment risk and reduce the predictability of returns, making long-term commitments to infrastructure and capital projects less attractive to investors (Sindani, 2020). For instance, sharp currency depreciation reduces the value of repatriated earnings and increases the cost of imported capital goods, directly affecting the feasibility of FDI-backed development initiatives. In addition, elevated interest rates—often used to combat inflation or stabilize currencies—can crowd out both private investment and development borrowing. In Kenya, although the Central Bank Rate (CBR) was lowered to 10.0% in April 2025, the average commercial lending rate remained relatively high at 12.7%, limiting credit availability for project financing (Kim, 2022). Inflation, though easing to 3.8% in May 2025, still affects input prices and government spending plans. These macroeconomic constraints not only influence FDI inflows but also determine how effectively such investments translate into tangible development outcomes (Nasir, 2022).

In the Kenyan context, development expenditure has been a central pillar of the country's long-term planning frameworks such as Vision 2030 and the Bottom-Up Economic Transformation Agenda (BETA) (Recha, Masso, & Mugo, 2024). However, the government's ability to implement development projects has been increasingly undermined by macroeconomic pressures. As of the 2023/24 fiscal year, only 25.2% of the development budget was absorbed by ministries and agencies, while county governments recorded development spending of 24.4%, falling short of the constitutional 30% requirement (Controller of Budget, 2024). At the same time, macroeconomic instability persists: the interest rate stands at 10.0% following five consecutive cuts by the Central Bank of Kenya to stimulate growth, the exchange rate averaged KES 129.25/USD in May 2025, and inflation eased to 3.8%, still leaving fiscal planners grappling with uncertainty (CBK, 2025). With public debt servicing consuming over 91% of Consolidated Fund Services expenditure, Kenya's fiscal space for development remains severely limited (National Treasury, 2024). Against this backdrop, FDI is increasingly viewed not just as a source of funding but as a potential moderating force capable of dampening the adverse effects of macroeconomic volatility on development spending (National Treasury, 2024). This study, therefore, sought to assess the extent to which FDI moderates the influence of interest rates, exchange rates, and inflation on Kenya's development expenditure, thereby offering empirical evidence to inform investment and fiscal policy reforms.

1.2 Statement of the problem

Kenya has seen notable improvements in a number of macroeconomic indicators over the past ten years. Before declining during the COVID-19 pandemic and rising to 4.8% in 2022, the nation's GDP growth rate averaged 5.5% between 2015 and 2019 (World Bank, 2023) With 6.9% inflation in 2022 compared to 5.2% in 2018, inflation has largely stayed within the government's target of 5 ±2.5% (IMF, 2023). The Kenyan shilling depreciated by roughly 7.3%

in 2021, which is better than its regional counterparts like Ghana, despite the exchange rate being under pressure from external shocks (AfDB, 2022). Additionally, revenue collection has improved; according to KRA, revenue increased from KES 1.2 trillion in FY2014/15 to KES 2.17 trillion in FY2022/23 (National Treasury, 2023a). Improvements in the business environment further bolstered these gains, as demonstrated by Kenya's ranking of 56th in the world in the World Bank's 2020 Doing Business Report (World Bank, 2020; UNDP, 2021). Furthermore, the expansion of mobile financial services and digital infrastructure has improved macroeconomic resilience (OECD, 2023). Nevertheless, despite these developments, development spending has not increased proportionately due to the macroeconomic climate.

Ironically, in spite of these macroeconomic improvements, Kenya's development spending has been declining. Development spending as a percentage of total government spending fell from 34% in FY2013–14 to 24% in FY2022/23, according to data from the National Treasury (National Treasury, 2023b; Budget Policy Statement, 2023). In FY2022/23, recurrent spending, especially debt service and wage obligations, has increased and now accounts for more than 65% of the budget (Controller of Budget, 2023; Parliamentary Budget Office, 2023). Early in 2023, the nation's public debt exceeded KES 10 trillion, or more than 70% of GDP, which crowded out funding for development (AfDB, 2023). Although investments in infrastructure, education, and health were prioritized in Vision 2030, capital allocation to these sectors has either decreased or remained unchanged (Vision 2030 Delivery Secretariat, 2022; World Bank, 2022). Additionally, over 60% of county governments' budgets are allocated to operations and salaries, leaving little money for capital projects (Auditor General, 2022). Long-term economic transformation objectives are undercut by this circumstance, which also calls into question the effectiveness and allocation of public resources (IPEA, 2021; UNCTAD, 2022a).

Simultaneously, despite legislative and regulatory changes intended to draw in foreign investment, Kenya's FDI inflows have grown unevenly. FDI inflows increased slightly from USD 1.1 billion in 2016 to USD 1.4 billion in 2021 before falling to USD 0.8 billion in 2022, according to UNCTAD (2022b). In contrast, during the same time period, peer nations like South Africa brought in USD 9.0 billion and Egypt USD 11.4 billion (AfDB, 2023). Kenya has made strides in attracting foreign investment through organizations like the Kenya Investment Authority (KenInvest), but long-term investor confidence has been hampered by structural issues like corruption, unpredictable policy, and high operating costs (World Bank, 2020). Furthermore, traditional sectors like banking and telecommunications continue to receive the majority of foreign direct investment (FDI) in Kenya, with little link to infrastructure development or capital formation (KIPPRA, 2022). It is still unclear whether foreign direct investment (FDI) serves as a catalyst or a buffer in relation to the country's macroeconomic environment and how it affects development spending. In Kenyan fiscal studies, this issue has not gotten enough attention.

Numerous studies have examined the impact of macroeconomic factors on development outcomes, frequently emphasizing the ways in which public investment is impacted by inflation, interest rates, exchange rates, and fiscal balance (Nyang'oro & Omollo, 2020; Gachanja & Ngugi, 2018; Were *et al.*, 2017). Market size, political stability, and infrastructure have been the main topics of other studies on the factors influencing foreign direct investment in Kenya (Otieno & Namusonge, 2017; Okech & Mugambi, 2020). Examining FDI as a moderating variable in the relationship between macroeconomic conditions and development expenditures, however, leaves a gap in the integration of these strands. Studies by Kamau & Munga (2022) and Adongo & Were (2020) acknowledge that foreign direct investment (FDI) may have indirect effects on public investment, but they do not model these effects empirically.

Furthermore, the literature currently in publication hardly ever discusses the asymmetric role of foreign direct investment (FDI) in different macroeconomic contexts (such as inflationary versus deflationary environments) or provides recommendations for policies that would use FDI to protect or improve development budgets (Mutua, 2021; IMF, 2023; OECD, 2023; KNBS, 2023b). This reduces the applicability of earlier research to Kenya's current fiscal issues, where capital allocation choices are influenced by both macroeconomic volatility and FDI variability. Therefore, a thorough, context-specific analysis is needed to determine how much FDI mitigates the effects of important macroeconomic variables on development spending, such as GDP growth, inflation, exchange rates, and revenue performance. This study therefore sought to examine the moderating role of Foreign Direct Investment (FDI) on the relationship between macroeconomic factors (interest rate, exchange rate, and inflation rate) and development expenditure in Kenya.

1.3 Objectives of the Study

1.3.1 General Objectives

To examine the moderating role of foreign direct investment on the relationship between macroeconomic factors and development expenditure in Kenya

1.3.2 Specific Objectives

i. To analyze the effect of interest rates on development expenditure in Kenya.
ii. To investigate the influence of exchange rate fluctuations on development expenditure in Kenya.
iii. To examine the effect of inflation rates on development expenditure in Kenya.
iv. To assess the overall moderating role of FDI on the combined effect of interest rates, exchange rates, and inflation rates on development expenditure in Kenya.

1.4 Research questions

i. How do interest rates affect development expenditure in Kenya?

ii. In what ways do exchange rate fluctuations affect development expenditure in Kenya?

iii. What is the role of inflation rates on development expenditure in Kenya?

iv. How does FDI moderate the combined effect of interest rates, exchange rates, and inflation rates on development expenditure in Kenya?

1.5 Significance of the Study

This study is significant to the Government of Kenya and policy makers as it provides empirical evidence on how Foreign Direct Investment (FDI) can buffer or amplify the effects of key macroeconomic variables—namely interest rates, exchange rates, and inflation—on development expenditure. Given Kenya's constrained fiscal environment, characterized by high public debt and limited revenue mobilization, understanding the moderating role of FDI is crucial for optimizing public investment strategies. The findings of this study supports the formulation of integrated macroeconomic and investment policies aimed at enhancing development spending efficiency and resilience, particularly in the context of fluctuating macroeconomic conditions. This assists the government in aligning its fiscal strategies with Vision 2030 and the Bottom-Up Economic Transformation Agenda (BETA).

For investors, particularly foreign entities considering entry into the Kenyan market, this study offers valuable insights into the interaction between the macroeconomic environment and public investment trends. By illustrating the stabilizing role that FDI can play, especially during periods of economic volatility, the research provides a clearer risk-return framework for long-term investment planning. It can also inform multinational corporations and institutional investors about sectoral opportunities where FDI could generate the greatest impact,

particularly in infrastructure, manufacturing, and energy development projects linked to government expenditure.

To academicians and other researchers, this study contributes to the growing body of knowledge on the intersection between macroeconomics, public finance, and foreign investment. It provides a model for examining moderating effects using quantitative techniques, enriching theoretical and empirical discourse in development economics and international finance. The study also opens new avenues for further research, such as cross-country comparisons or sector-specific assessments, which can deepen understanding of how FDI interacts with national economic indicators to influence development outcomes.

1.6 Scope of the Study

This study zeroes in on how key economic factors – specifically inflation, interest rates, exchange rates, and foreign direct investment (FDI) – affect development spending in Kenya. We looked at how these four variables influence the government's ability to fund and carry out development projects over a specific timeframe.

Geographically, the study focused solely on Kenya, using national-level data and looking at government spending policies that impact the country's development budget. We pulled data from reliable public sources like the Central Bank of Kenya, the Kenya National Bureau of Statistics, and government financial reports. These sources gave us the hard numbers on inflation, interest rates, exchange rates, and development expenditure over the years.

The study's timeframe spans from at least 2008 to 2023. This period was chosen to capture significant economic trends, including the ripple effects of global financial crises, changes in government spending priorities, and shifts in Kenya's domestic economic landscape. Looking at this extended period gave us a better understanding of the long-term impact of these economic factors on Kenya's development spending.

1.7 Justification of the Study

The imperative to understand the nuanced interplay between macroeconomic factors and development expenditure in Kenya is paramount for sustainable economic growth. Kenya, like many developing economies, is susceptible to fluctuations in interest rates, inflation, and exchange rates, which can significantly impact its development projects. Therefore, analyzing how these macroeconomic variables influence development expenditure is crucial for effective fiscal planning and policy formulation.

Foreign Direct Investment (FDI) plays a potentially vital role in mitigating the adverse effects of macroeconomic instability. By injecting capital, technology, and expertise, FDI can enhance the resilience of development projects, and contribute to economic stability. This study is justified by the need to investigate the moderating influence of FDI on the relationship between macroeconomic factors and development expenditure, providing insights into how Kenya can leverage FDI to bolster its economic development.

Ultimately, this research aimed to furnish policymakers with evidence-based recommendations for optimizing FDI inflows and managing macroeconomic risks. By quantifying the moderating effects of FDI, the study contributed to the development of robust economic strategies that promote sustainable development expenditure and foster long-term economic stability in Kenya.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter presents literature review on the moderating role of foreign direct investment on the relationship between macroeconomic factors and development expenditure in Kenya. The chapter entails theoretical review and empirical review, conceptual framework and operationalization of the study variables

2.2 Theoretical Review

This study was guided by the Wagner's Law of Increasing State Activity, Keynesian Theory of Government Expenditure and Fiscal Illusion Theory. Theoretical review provides the conceptual foundation upon which the study is built, offering insights into the principles, assumptions, and frameworks that explain the relationship between macroeconomic variables and development expenditure. It helps to establish how various economic theories interpret government spending behavior, particularly in response to fluctuations in interest rates, inflation, exchange rates, and external financial flows such as Foreign Direct Investment (FDI). Through these theories, the study gains a clearer understanding of the underlying mechanisms that drive fiscal policy decisions and development financing in a dynamic macroeconomic environment. In the context of Kenya, where the economy is influenced by both internal and external shocks, theoretical perspectives such as Wagner’s Law of Increasing State Activity, the Keynesian Theory of Government Expenditure, and the Fiscal Illusion Theory provide a comprehensive analytical framework. These theories collectively shed light on how economic growth influences public spending, how government expenditure can be used as a stabilization tool, and how citizens’ perceptions of fiscal policy are shaped by macroeconomic conditions and government transparency.

2.2.1 Wagner's Law of Increasing State Activity

Wagner's Law of Increasing State Activity, formulated by German economist Adolph Wagner (1835–1917), is one of the foundational theories explaining the growth of public expenditure in relation to economic development. The law posits that as an economy experiences sustained growth and industrialization, the activities and responsibilities of the government naturally expand, leading to increased public spending (Paul & Furahisha, 2017). Wagner observed that economic progress generates new social and economic demands—such as the need for infrastructure, education, healthcare, and regulatory frameworks—that require active government intervention and financing. In essence, economic development fosters a rising demand for collective goods and public services, compelling the state to increase its fiscal involvement.

According to Wagner, this increase in state activity is not temporary but structural, reflecting the transformation of the economy and society. As nations industrialize, urbanize, and modernize, governments must provide a supportive environment for continued growth by investing in transportation networks, communication systems, energy infrastructure, and human capital development. Moreover, industrialization and modernization often lead to greater income disparities, necessitating social welfare programs to promote equity and stability. Hence, public expenditure tends to grow not only in absolute terms but also as a proportion of national income. This relationship between economic growth and public spending is often expressed as the "Law of Expanding State Functions," emphasizing the endogenous nature of fiscal expansion within a growing economy.

In the context of Kenya, Wagner's Law implies that as the country's GDP expands—driven by sectors such as manufacturing, services, and technology—government spending on development projects should also increase to meet the infrastructure and social needs of a modernizing society. Development expenditure, in this sense, becomes a necessary component

of supporting long-term growth, enhancing productivity, and improving public welfare. However, Kenya's fiscal reality often diverges from this ideal due to the influence of macroeconomic factors such as inflation, interest rates, and exchange rate volatility. High inflation erodes the real value of public funds, forcing the government to divert resources to short-term stabilization efforts instead of long-term development. Similarly, elevated interest rates raise borrowing costs, limiting fiscal space for capital investments. Exchange rate fluctuations, on the other hand, increase the cost of imported construction materials and equipment, reducing the efficiency and affordability of development projects (Okoye et al., 2019).

Therefore, while Wagner's Law provides a theoretical expectation that economic growth leads to a proportional rise in development expenditure, the actual realization of this relationship depends heavily on macroeconomic stability and sound fiscal management. In periods of macroeconomic turbulence, the government may struggle to sustain growth-oriented spending despite an expanding economy. Conversely, in a stable macroeconomic environment—characterized by low inflation, stable interest rates, and a predictable exchange rate—the government is better positioned to align its fiscal policy with Wagner's proposition, channeling more resources into infrastructure, social welfare, and public investment programs. As such, Wagner's Law underscores the interdependence between economic growth, fiscal policy, and macroeconomic stability, emphasizing that sustainable public spending growth can only occur within a conducive economic environment (Wagner & Weber, 1977).

2.2.2 Keynesian Theory of Government Expenditure

The Keynesian Theory of Government Expenditure, advanced by John Maynard Keynes in 1936 through his influential publication The General Theory of Employment, Interest, and Money, revolutionized economic thought by emphasizing the critical role of government intervention in stabilizing and stimulating the economy. Keynes argued that during

periods of economic downturn, private sector demand often falls short of what is needed to sustain full employment and growth. In such times, it becomes necessary for the government to step in through increased public spending to bridge the demand gap. This spending, according to Keynes, creates a multiplier effect, where each unit of government expenditure generates multiple units of income and output across the economy. Through this process, public investment in infrastructure, social welfare, and development programs stimulates aggregate demand, encourages private sector participation, and fosters long-term economic expansion (Danladi et al., 2015).

Keynesian economics underscores that government expenditure is not merely a fiscal tool but a macroeconomic stabilizer. In times of economic slowdown or recession, expansionary fiscal policy—marked by higher government spending and sometimes lower taxes—helps to revive aggregate demand, increase production, and reduce unemployment. Conversely, during periods of economic overheating and inflation, the government may reduce spending to prevent excessive demand and price escalation. This counter-cyclical approach ensures that public spending plays a balancing role in economic management. For developing economies like Kenya, where private investment may be constrained by structural challenges such as underdeveloped financial markets or low consumer purchasing power, public expenditure on development projects becomes even more vital in driving growth and improving living standards. Investment in infrastructure, healthcare, and education not only boosts short-term demand but also lays the foundation for long-term productivity gains.

In the Kenyan context, the Keynesian perspective offers valuable insights into how macroeconomic variables—such as inflation, interest rates, and exchange rate movements—shape fiscal policy and development expenditure decisions (Rahman, 2023). For instance, high inflation reduces the real purchasing power of government budgets, meaning that more money is required to achieve the same level of output in public projects. This erodes the effectiveness

of fiscal policy, as funds that could have been used for development are redirected to manage price instability. Similarly, elevated interest rates increase the cost of borrowing, discouraging both private and public sector investment. For a government reliant on debt to finance development initiatives, this results in reduced fiscal space and slower implementation of capital-intensive projects. Furthermore, exchange rate volatility poses additional challenges by affecting the cost of imported construction materials, technology, and equipment required for infrastructure projects (Parui, 2022; Zhang et al., 2019). Such fluctuations can lead to budget overruns and disrupt project timelines.

Overall, Keynesian theory highlights the interconnectedness between fiscal policy and macroeconomic stability, suggesting that effective development spending requires a predictable and stable economic environment. When inflation, interest rates, and exchange rates are well-managed, the government can allocate resources efficiently and maintain sustained investment in growth-oriented sectors. Conversely, macroeconomic instability undermines the capacity of fiscal policy to deliver its intended stimulative effects, potentially slowing down economic progress and worsening unemployment. In this regard, Keynesian economics underscores that government expenditure is both a driver and a product of economic stability, reinforcing the notion that well-coordinated fiscal and monetary policies are essential for fostering sustainable development and inclusive growth (Arestis & Kaya, 2021).

2.2.3 Fiscal Illusion Theory

The Fiscal Illusion Theory, first introduced by Italian economist Amilcare Puviani in 1903, provides a critical lens through which to understand how government spending decisions can be obscured or misunderstood by the public. The theory posits that governments may deliberately or unintentionally create fiscal illusions, leading taxpayers and citizens to misperceive the real cost and scope of public expenditure. In essence, fiscal illusion occurs when the true burden of taxation or public spending is hidden from the public, often due to

complex fiscal structures, inflationary pressures, or opaque budgetary practices (Buehn et al., 2018). By manipulating the perception of costs—such as through indirect taxation, deficit financing, or inflation—governments can make spending appear more affordable or sustainable than it actually is. This illusion enables policymakers to expand public expenditure without facing immediate political backlash, as citizens are less aware of how much they are ultimately paying for government programs and projects (Ross & Mughan, 2018).

A key insight from Fiscal Illusion Theory is that economic instability can intensify these misperceptions. In periods of inflation, for instance, the nominal value of government spending may rise, creating the illusion of increased investment in public services or development projects, even though the real purchasing power of that expenditure is declining. Inflation thus erodes the true value of money, distorting both public perception and fiscal accountability. Similarly, high interest rates and increased debt servicing costs can divert government resources away from development spending toward debt repayment. However, the public may remain unaware of this reallocation, assuming that budgetary increases imply more development activity. Exchange rate volatility further complicates this picture, as currency depreciation raises the cost of imported materials and equipment required for development projects. Consequently, project budgets may inflate in nominal terms, but actual progress or value for money achieved may be significantly lower (Makoye et al., 2023; Cepparulo *et al*., 2019).

In the context of Kenya, fiscal illusion manifests in the challenges citizens face in interpreting the government's development budget amid macroeconomic fluctuations. For example, when inflation rises, the government may appear to increase expenditure allocations for infrastructure, health, or education. However, in real terms, these increases might not translate to improved service delivery or expanded development outcomes due to the eroding value of funds. Similarly, when exchange rates fluctuate sharply, the cost of executing projects

dependent on imported machinery and materials escalates, yet official reports may still show constant or increased nominal spending. This creates a disconnect between perceived and actual development performance, limiting the ability of citizens and oversight institutions to accurately evaluate fiscal effectiveness (Stockhammer & Wildauer, 2017).

Furthermore, fiscal illusion has political and governance implications. Policymakers may exploit these illusions for short-term political gain—announcing budgetary increases without addressing the underlying economic inefficiencies or real purchasing power of expenditures. During election periods, for instance, fiscal illusions may be heightened by populist spending announcements that overstate development commitments. This dynamic weakens fiscal transparency and public accountability, as the electorate bases its judgments on distorted or incomplete fiscal information (Ross & Mughan, 2018). Conversely, when macroeconomic conditions are stable—characterized by low inflation, predictable interest rates, and steady exchange rates—citizens can more easily discern the real value of government spending. Such stability enhances fiscal clarity, promotes efficient allocation of public resources, and strengthens the link between government expenditure and tangible development outcomes.

The Fiscal Illusion Theory highlights the critical importance of transparency and macroeconomic stability in managing public finances. In economies with volatile inflation, interest, and exchange rates, fiscal illusions obscure the true relationship between government spending and economic development. By contrast, when fiscal reporting is clear and macroeconomic fundamentals are stable, both policymakers and citizens can make better-informed decisions, thereby ensuring that public spending truly contributes to national development objectives (Buehn *et al*., 2018; Cepparulo *et al*., 2019).

2.3 Empirical Review

2.3.1 Interest Rates and Development Expenditure

Kilonzo and Muriithi (2020) investigated the effect of interest rate movements on government development expenditure in Kenya using time series data from 1990–2018 and an ARDL model. Their findings revealed a negative and statistically significant relationship, indicating that higher lending rates increase the cost of government borrowing and reduce the fiscal space available for capital projects. They concluded that interest rate stability is essential for sustainable fiscal planning. Similarly, Musa and Abdullahi (2019) analyzed the relationship between monetary policy rates and capital expenditure in Nigeria and found that increases in the monetary policy rate significantly suppressed public investment. They noted that when the government diverts funds to service expensive debt, development projects suffer delays or cancellation.

In another study, Okoro (2023) explored the impact of interest rate fluctuations on public expenditure patterns in Sub-Saharan African economies using panel regression. The study established that higher interest rates reduce capital investment by governments but often increase recurrent expenditure, particularly interest payments. This crowding-out effect was found to be stronger in economies with high public debt burdens. Furthermore, Murunga and Omondi (2021) examined the relationship between interest rate volatility and fiscal performance in East African Community (EAC) countries. Their results confirmed that unpredictable interest rate shifts distort fiscal planning, leading to inconsistent development spending. The study emphasized the need for monetary-fiscal policy coordination to cushion governments from interest rate shocks.

Mutua (2022) conducted a study on the relationship between interest rate fluctuations and development expenditure in Kenya using time series data from 1980 to 2020. The study

found that increases in domestic interest rates significantly reduced the share of government funds allocated to development expenditure. The study concluded that high interest rates increase the cost of debt servicing, thereby crowding out resources that could be directed towards infrastructure and social development projects.

Alesina et al. (2017) conducted a study on the effects of fiscal consolidations in OECD countries, focusing on how governments adjust spending when faced with high interest rates. The study found that governments are more likely to cut capital (development) expenditure than recurrent expenditure when faced with rising borrowing costs. The study concluded that interest rate hikes constrain long-term investment by forcing fiscal adjustments that disproportionately affect development budgets.

Adam and Bevan (2022) conducted a study on fiscal deficits and public investment in Sub-Saharan Africa. The study found that higher interest rates, particularly on domestic debt, reduce the government's capacity to finance development expenditure. The study concluded that there is a negative long-run relationship between interest rates and development spending due to the crowding-out effect of public debt servicing.

Mutinda and Kiringai (2021) conducted a study on interest rate volatility and public expenditure composition in Kenya. The study found that increased interest rate volatility leads to budget reallocations from development expenditure to debt servicing and recurrent expenditure. The study concluded that interest rate movements pose a significant threat to development financing and long-term economic planning.

Reinhart and Rogoff (2020) conducted a study on the macroeconomic impact of public debt and interest payments in highly indebted economies. The study found that higher interest payments reduce fiscal space for development projects, particularly in developing countries.

The study concluded that sustained high interest rates contribute to lower development expenditure, which undermines economic growth potential.

Baldacci, Hillman, and Kojo (2024) conducted a study on fiscal policy transmission in low-income countries. The study found that rising interest rates increase debt service obligations, forcing governments to cut development spending to meet non-discretionary recurrent costs. The study concluded that the fragility of budget systems in low-income countries makes development expenditure especially vulnerable to interest rate pressures.

2.3.2 Exchange Rate Fluctuations and Development Expenditure

Mwangi and Njenga (2019) examined the effect of exchange rate movements on public investment in Kenya using annual data from 1995–2017 and found a negative and significant effect. They explained that depreciation of the Kenyan shilling raises the cost of imported construction materials and capital goods, inflating project costs and reducing the number of projects the government can finance. Similarly, Osei and Kimani (2020) studied Sub-Saharan African economies and found that exchange rate depreciation reduces capital expenditure due to the increased cost of foreign-denominated debt service and imported inputs for development projects.

In addition, Abdullahi and Suleiman (2018) used a VECM framework to analyze the long-run relationship between exchange rate volatility and public infrastructure investment in Nigeria. The results revealed that persistent depreciation leads to reallocation of funds from capital to recurrent spending as governments seek to mitigate rising import costs. The study recommended exchange rate stabilization policies to support predictable budgeting. Kariuki and Kibet (2022) also examined the same relationship for Kenya using quarterly data from 2000–2020 and found that exchange rate volatility significantly undermines fiscal discipline, as large currency swings make it difficult to maintain cost consistency in multiyear projects.

Wanjiku (2021) conducted a study on the effect of exchange rate volatility on government development spending in Kenya. The study used quarterly data from 2000 to 2020 and applied an autoregressive distributed lag (ARDL) model. The study found that exchange rate depreciation significantly reduced development expenditure, especially in infrastructure and education sectors. The study concluded that exchange rate instability undermines the government's ability to finance long-term development projects due to rising import costs and increased debt service on foreign-denominated loans.

Mensah (2018) conducted a study on exchange rate movements and public investment in Ghana using time-series data spanning 1990–2017. The study found that exchange rate depreciation led to increased recurrent expenditure at the expense of capital spending. The study concluded that governments in developing countries often redirect funds from development programs to cushion the effects of exchange rate-induced inflation and rising external debt obligations.

Mwansa (2020) conducted a study on the impact of currency volatility on development budgeting in Zambia. The study found that significant fluctuations in the exchange rate adversely affected the cost of imported construction materials and foreign-funded projects. The study concluded that frequent currency instability results in delays and budget overruns in development projects, limiting their effectiveness and sustainability.

Abdullahi (2021) conducted a study examining the influence of exchange rate fluctuations on sectoral public expenditure in Nigeria. The study found that development expenditure, especially in health and transportation, was negatively impacted by exchange rate depreciation. The study concluded that macroeconomic instability, particularly exchange rate volatility, constrains the fiscal space available for development investment.

Moyo (2023) conducted a study in Zimbabwe to investigate the relationship between exchange rate trends and public infrastructure financing. Using co-integration and error correction modeling, the study found that real exchange rate depreciation significantly reduced government investment in roads and water systems. The study concluded that volatile exchange rates erode fiscal planning and reduce investor confidence in public-private partnerships tied to development projects.

Kibet (2022) conducted a study on the implications of exchange rate shocks on development spending in East African Community (EAC) countries. The study found that countries with more flexible exchange rate regimes experienced sharper contractions in capital budgets during periods of depreciation. The study concluded that stable exchange rates are essential for predictable and sustained financing of development goals within regional integration frameworks.

2.3.3 Inflation Rates and Development Expenditure

Odhiambo (2020) conducted a study on the impact of inflation on public development expenditure in Kenya, covering the period from 1981 to 2018. The study found that high inflation rates were negatively associated with development spending, as rising prices eroded the real value of government capital budgets. The study concluded that inflation undermines long-term development planning by increasing the cost of infrastructure projects and limiting the government's purchasing power.

Adusei (2023) conducted a study on inflation and fiscal expenditure patterns in Ghana. The study employed a vector error correction model (VECM) and found that inflation significantly reduced development expenditure while having a weaker effect on recurrent expenditure. The study concluded that inflation pressures lead governments to prioritize short-term consumption spending over long-term investment in public goods.

Chileshe (2021) conducted a study in Zambia to examine the relationship between inflation volatility and the composition of government expenditure. The study found that during periods of high inflation, the government shifted funds from development expenditure to recurrent obligations, particularly wages and debt service. The study concluded that inflation reduces fiscal flexibility and crowds out public investment in key sectors such as health and infrastructure.

Mohammed (2018) conducted a study in Nigeria focusing on macroeconomic instability and public capital investment. The study found that inflation had a statistically significant negative effect on development expenditure, primarily due to the increased cost of imported capital goods and project implementation delays. The study concluded that controlling inflation is critical for sustaining adequate levels of development spending.

Tumusiime (2019) conducted a study on inflation dynamics and public sector spending in Uganda using annual data from 1990 to 2016. The study found that rising inflation led to real budgetary constraints that disproportionately affected capital expenditures. The study concluded that inflation targeting should be a core aspect of fiscal discipline to ensure continuity of development projects.

Teshome (2024) conducted a study in Ethiopia to assess the effect of inflation on government capital budgeting. Using a time series regression approach, the study found that inflation led to frequent budget revisions and reductions in the scope of development programs. The study concluded that persistent inflation undermines the efficiency and predictability of public development expenditure.

Muthoni and Waweru (2020) examined inflation and fiscal expenditure dynamics in Kenya using data from 1985–2019 and found that inflation has a negative and significant effect on development spending. The study attributed this to the erosion of real government revenues

and increased recurrent costs, which reduce funds available for capital projects. Likewise, Ofori and Mensah (2017) analyzed data from Ghana using an ARDL model and observed that high inflation rates shift government focus toward consumption and subsidies rather than long-term development investments, leading to fiscal inefficiencies.

Further evidence by Ali and Ibrahim (2021) in Nigeria showed that persistent inflation reduces government spending efficiency, as price uncertainty inflates project costs and increases the risk of budget overruns. Their study recommended maintaining inflation within moderate and predictable levels to enhance fiscal performance. Similarly, Chege and Gachanja (2018) investigated Kenya's inflationary trends and their effect on capital expenditure and reported that periods of high inflation coincided with project delays and reduced disbursement rates for development programs. They concluded that inflation volatility creates uncertainty in procurement and project management, discouraging contractors and increasing the overall cost of implementation.

2.3.4 Foreign Direct Investment and Development Expenditure

Njeru (2021) conducted a study on the impact of foreign direct investment on development expenditure in Kenya using annual data from 1980 to 2020. The study found that increases in FDI inflows were positively associated with higher levels of public development expenditure, particularly in infrastructure and energy sectors. The study concluded that FDI acts as a complementary source of capital, easing fiscal constraints and enhancing the government's capacity to finance development projects.

Asiedu (2024) conducted a study across Sub-Saharan African countries to examine whether FDI promotes government investment in development. The study found that FDI inflows contributed to increased capital expenditure, especially in countries with stable macroeconomic environments. The study concluded that while FDI can stimulate development

expenditure, its impact depends on the host country's institutional quality and public investment efficiency.

Okon, Augustine, and Philip (2022) conducted a study in Nigeria to assess the relationship between FDI and government capital expenditure. Using co-integration analysis, the study found that FDI had a significant positive long-run effect on development expenditure. The study concluded that FDI enhances government spending capacity by increasing revenue, technology transfer, and infrastructure co-financing opportunities.

Bende-Nabende and Ford (2021) conducted a study on the impact of FDI on capital formation and development financing in five ASEAN countries. The study found that FDI inflows supported public investment through tax revenues, employment creation, and domestic investment linkages. The study concluded that well-managed FDI inflows can promote sustainable increases in development expenditure in developing economies.

Mwaba (2020) conducted a study in Zambia to analyze the effect of FDI on development budget allocations. The study found that FDI contributed to the expansion of infrastructure and mining-related development projects, leading to a rise in public capital spending. The study concluded that targeted FDI policies can directly support national development goals when aligned with government priorities.

Gebre and Getachew (2019) conducted a study in Ethiopia on FDI and its influence on public sector development financing. The study found that FDI inflows increased fiscal space, allowing the government to reallocate resources from recurrent to development expenditure. The study concluded that FDI plays a catalytic role in development financing, especially in capital-intensive sectors such as construction and manufacturing.

Adams and Opoku (2020) examined the interaction between FDI inflows and macroeconomic stability in Sub-Saharan Africa and found that FDI enhances the positive

effects of stable macroeconomic conditions on public investment. However, during periods of high inflation or exchange rate volatility, FDI inflows decline sharply, weakening fiscal capacity. In a related study, Mwangi and Karimi (2019) analyzed Kenya's FDI flows and fiscal trends from 1990–2018 and established that FDI supplements domestic resources for development, particularly in infrastructure and manufacturing sectors. However, they also noted that macroeconomic instability discourages sustained foreign investment, reducing its potential stabilizing impact.

Similarly, Okonjo and Nwankwo (2021) conducted a panel study across East African countries and found that FDI positively moderates the relationship between economic stability and development expenditure. Their results suggested that inflows of FDI can offset the negative fiscal effects of short-term macroeconomic fluctuations, provided the investment climate remains predictable. Conversely, Adeniyi and Adewale (2017) found a negative moderating effect of FDI in Nigeria, where volatile macroeconomic conditions deterred long-term foreign investors, reducing overall development financing.

2.4 Conceptual Framework

A conceptual framework is a research tool that is used to communicate as well as developing a clear understanding of the topic under study (Kombo & Tromp, 2019). It shows the expected relationship between the independent variables, moderating variable and dependent variable. In this study, the independent variables included interest rate, exchange rate and inflation rate. The moderating variable was foreign direct investment while the dependent variable was development expenditure

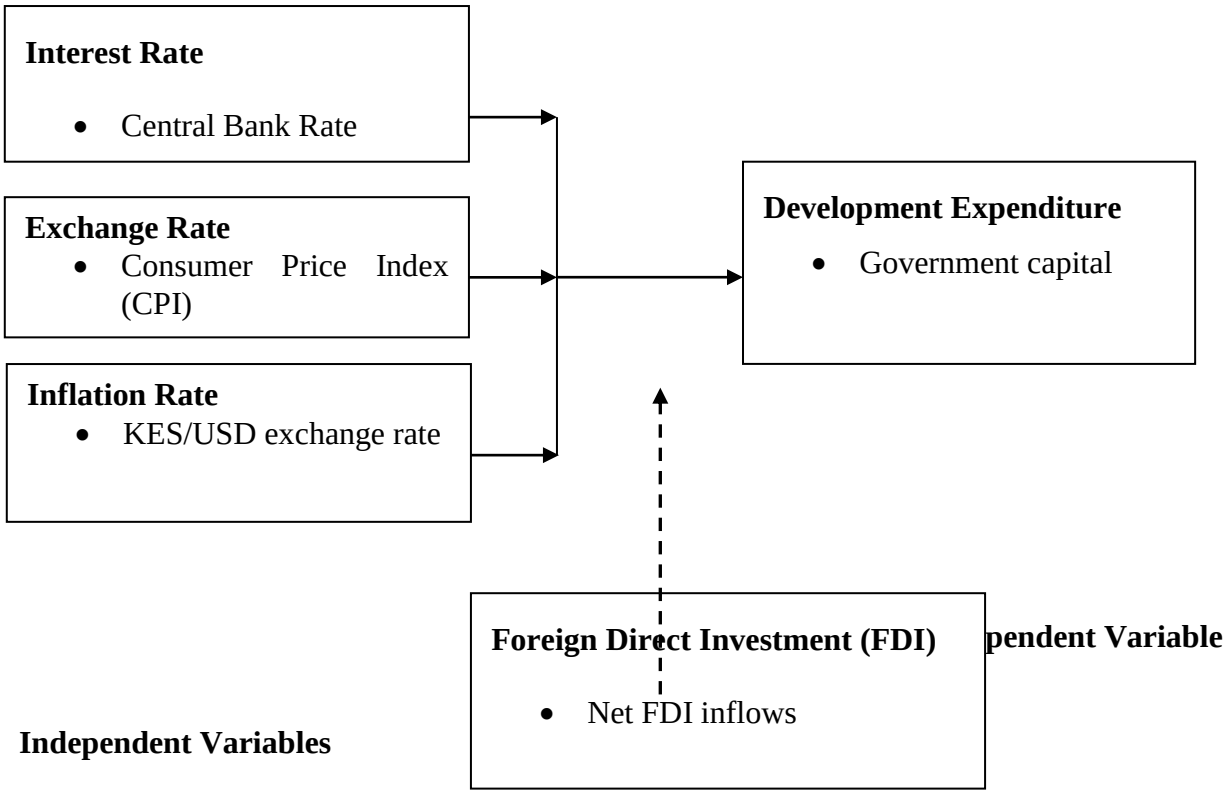

FIGURE 2. 1

Conceptual Framework

2.4.1 Interest Rate

Interest rate refers to the cost of borrowing money or the return earned on savings and investments, usually expressed as a percentage of the principal amount per period. It represents the price paid for the use of funds and serves as a key instrument in monetary policy and financial intermediation (Mutua, 2022). Central banks use interest rates to influence the availability and cost of credit in an economy, thereby managing inflation, investment, and overall economic growth. Changes in interest rates affect the behavior of consumers, investors, and governments by influencing borrowing costs, saving decisions, and the allocation of resources (Alesina *et al*., 2017). In a broader macroeconomic context, the interest rate acts as a transmission mechanism through which monetary policy affects output, employment, and investment levels in the economy (Adam & Bevan, 2022).

The movement of interest rates has wide-ranging implications for both private and public sectors. When interest rates rise, borrowing becomes more expensive, leading to a reduction in credit uptake and investment activities (Mutinda & Kiringai, 2021). This may slow economic growth and constrain the capacity of both households and governments to finance long-term projects. Conversely, lower interest rates stimulate borrowing, promote investment, and encourage economic expansion. For governments, interest rate movements directly affect public debt servicing costs and the affordability of financing development projects through borrowing. Persistent volatility in interest rates creates uncertainty in financial planning, influences capital flows, and can either stimulate or constrain fiscal performance depending on the prevailing macroeconomic environment (Reinhart & Rogoff, 2020).

2.4.2 Exchange Rate

The exchange rate refers to the price of one country's currency expressed in terms of another currency. It represents the value of a nation's currency in the global marketplace and determines how much of a foreign currency can be exchanged for a unit of the domestic currency (Baldacci, Hillman, & Kojo, 2024). Exchange rates play a fundamental role in international trade and finance by influencing the cost of imports, the competitiveness of exports, and the balance of payments position of a country. They can be determined through various systems such as fixed, floating, or managed exchange rate regimes, depending on the monetary policy framework adopted by a nation. The exchange rate is, therefore, a critical indicator of a country's economic stability and global competitiveness, affecting prices, investment flows, and external debt obligations (Wanjiku, 2021).

Fluctuations in the exchange rate have significant implications for economic performance. A depreciation of the domestic currency makes imports more expensive and exports cheaper, which can improve export competitiveness but also increase the cost of imported goods and services (Mensah, 2018). Conversely, currency appreciation makes imports cheaper and exports more expensive, which may reduce export earnings and affect domestic production. Persistent volatility in exchange rates creates uncertainty in trade and investment decisions, making it difficult for businesses and governments to plan effectively (Mwansa, 2020). For countries that rely heavily on imports for capital goods, fuel, and raw materials, exchange rate instability can lead to higher production and project costs, disrupt budget planning, and affect overall economic growth (Abdullahi, 2021).

2.4.3 Inflation Rate

Inflation rate refers to the percentage change in the general price level of goods and services within an economy over a specific period, usually measured annually (Odhiambo,

2020). It reflects the rate at which the purchasing power of money declines, meaning that more money is required to purchase the same quantity of goods and services. Inflation is typically caused by factors such as increased demand (demand-pull inflation), rising production costs (cost-push inflation), or expansionary monetary policies that increase the money supply (Adusei, 2023). Governments and central banks monitor inflation closely because it directly affects the cost of living, interest rates, investment decisions, and the stability of the national economy. A moderate and stable inflation rate is often considered beneficial as it encourages consumption and investment, while excessive or unpredictable inflation undermines economic stability (Chileshe, 2021).

Fluctuations in inflation rates have broad economic and fiscal consequences. High inflation erodes the real value of money, reducing consumers' purchasing power and increasing the cost of production for businesses (Mohammed, 2018). It also leads to uncertainty in pricing, wage demands, and financial planning, thereby discouraging long-term investment. On the fiscal side, inflation increases the nominal cost of government projects and can distort budget allocations by forcing adjustments in expenditure to maintain purchasing capacity. Conversely, very low or deflationary conditions can slow economic activity by discouraging spending and investment (Tumusiime, 2019). Maintaining a stable inflation rate is therefore critical for sustaining macroeconomic balance, protecting the real value of incomes, and ensuring predictability in both private and public sector planning (Teshome, 2024).

2.4.4 Foreign Direct Investment (FDI)

Foreign Direct Investment (FDI) refers to the long-term investment made by individuals, companies, or governments from one country into business interests or productive assets located in another country (Njeru, 2021). Typically, FDI occurs when a foreign investor acquires a significant degree of influence or control over a company's management, operations, or decision-making—often defined as owning at least 10% of the company's voting shares

(Asiedu, 2024). FDI can take several forms, including greenfield investments (establishing new facilities), mergers and acquisitions, or joint ventures with domestic firms. It plays a vital role in global economic integration, enabling the transfer of capital, technology, skills, and managerial expertise from developed to developing economies. In many countries, FDI serves as a key driver of industrial growth, job creation, and technological advancement, contributing significantly to overall economic development (Okon, Augustine, & Philip, 2022).

FDI inflows are influenced by a country's macroeconomic stability, political environment, regulatory framework, and infrastructure quality. Investors tend to favor destinations that offer a predictable economic environment, transparent policies, and attractive returns (Bende-Nabende & Ford, 2021). Conversely, high inflation, interest rate volatility, exchange rate instability, and political uncertainty can deter foreign investment. For developing countries, FDI is not only a source of capital but also a catalyst for economic transformation, as it supports the financing of large-scale infrastructure and industrial projects that might otherwise be beyond domestic capacity (Mwaba, 2020). However, excessive dependence on FDI can expose an economy to external shocks and profit repatriation pressures. Hence, maintaining a balanced and stable macroeconomic environment is crucial for attracting sustainable FDI that complements domestic investment and supports long-term development goals (Gebre & Getachew, 2019).

2.4.5 Development Expenditure

Development expenditure refers to government spending on projects and programs that are designed to enhance a country's productive capacity, stimulate economic growth, and improve the welfare of its citizens over the long term (Mwaba, 2020). Unlike recurrent expenditure, which covers routine government operations such as salaries and maintenance, development expenditure focuses on investments that create tangible assets and infrastructure—such as roads, schools, hospitals, energy systems, water projects, and industrial

facilities (Bende-Nabende & Ford, 2021). It is a key instrument of fiscal policy through which governments channel resources toward implementing national development plans, poverty reduction strategies, and economic transformation initiatives. Development expenditure is often financed through domestic revenue, external borrowing, or donor funding and is aimed at promoting sustainable growth, job creation, and improved living standards (Okon, Augustine, & Philip, 2022).

The level and efficiency of development expenditure are influenced by various macroeconomic, institutional, and fiscal factors. Stable economic conditions—such as low inflation, moderate interest rates, and a stable exchange rate—enable predictable budgeting and efficient project implementation (Asiedu, 2024). Conversely, macroeconomic instability increases project costs, delays completion, and may result in budget reallocations from development to recurrent needs. Effective development spending also depends on sound public financial management systems, transparency, and accountability to ensure that funds are utilized efficiently and yield the intended outcomes (Njeru, 2021). Ultimately, development expenditure serves as a vital driver of structural transformation, enabling governments to expand infrastructure networks, enhance service delivery, and lay the foundation for long-term economic prosperity (Okon, Augustine, & Philip, 2022).

2.5 Operationalization of Variables

TABLE 2.1

Operationalization of the study variables.

Objective	**Variable Type/Variable**	**Indicator(s) / measurement**	**Measurement scale**	**Citation of studies that have used these variables.**
To analyze the effect of interest rates on development expenditure in Kenya and assess how FDI moderates this relationship.	**Independent** Interest rates	Interest rates (%)	Ratio	Stockhammer and Wildauer (2017, 2018)
To investigate the influence of exchange rate fluctuations on development expenditure in Kenya and determine the moderating role of FDI.	**Independent** Exchange rates	Exchange rates of major Curencies with KES	Ratio	Demir and Razmi (2022)
To examine the effect of inflation rates on development expenditure in Kenya and evaluate the moderating influence of FDI on this relationship.	**Independent** inflation rates	% inflation rates	Interval	Khan et al. (2022)
To assess the overall moderating role of FDI on the combined effect of interest rates, exchange rates, and inflation rates on	**Moderating** FDI-foreign direct investments.	FDI values	ratio	(Odondo & Mackton, 2018).

development expenditure in Kenya.				
	Dependent Development expenditure	Value of development expenditure per year	Ratio	Stockhammer and Wildauer (2017, 2018)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter includes research design, population, sampling Frame, sample size and sampling technique, data collection instrument, data collection procedure, Pilot test, reliability, validity and data Analysis and presentations. The study used econometric techniques to test the stated objectives and hypotheses concerning both direct and moderating effects.

3.2 Research Design

The study employed Explanatory Research Design to explain the relationship between macroeconomic factors (independent variables) and development expenditure (dependent variable). The design focused on understanding causation, how inflation, interest rates, and exchange rates influence the government's decisions and ability to allocate funds for development projects. A quantitative approach was essential, given that the study involved numerical data on inflation rates, interest rates, exchange rates, and FDI and government expenditure over time. Statistical analysis allowed for rigorous testing of relationships and the strength of influence each macroeconomic factor has on development expenditure. A longitudinal design, using time-series data examined the variables over an extended period. The trend was analyzed in macroeconomic data alongside FDI and development expenditure records over time to observe the effects of economic fluctuations.

3.3 Study Data Scope

The population for this study included all available records on Kenya's macroeconomic indicators specifically inflation rates, interest rates, exchange rates and FDI as well as development expenditure data over a defined historical period. This encompassed data from sources such as the Central Bank of Kenya for records on inflation, interest, FDI and exchange rate trends; the Kenya National Bureau of Statistics (KNBS) for comprehensive economic

reports; and government budget and expenditure reports detailing allocations to development expenditure. The time frame spanned for 16 years to capture meaningful trends and analyze the long-term impact of macroeconomic factors on development expenditure in Kenya.

3.4 Sample Size

3.4.1 Sample Size

Since this study relied on secondary data from official records rather than survey data, the sample size was all available data on the said variables in Kenya for the last 15 Years. For a time-series analysis, each month within this period served as an individual data point, resulting in a sample size of approximately 16 data points.

3.4.2 Sampling Technique

Census of available secondary time-series data was used. Given that the study involved historical records, a purposive sampling technique was used to focusing on all relevant years within the selected time frame (2008-2023) to ensure a comprehensive understanding of trends. This approach is appropriate because it ensured the inclusion of all available and relevant macroeconomic, FDI and expenditure data, rather than a subset, which enhances the reliability of time-series analysis in capturing trends and relationships between variables over time.

3.5 Data Collection Instrument

The study primarily relied on secondary data sources, including reports from the Central Bank of Kenya and the Kenya National Bureau of Statistics to obtain data on inflation, interest rates, and exchange rates, FDI as well as government budget reports and financial statements to gather data on development expenditure. To capture meaningful trends and analyze the long-term effects of these macroeconomic factors, data covered a period of at least 16 Years, which helped to smooth out short-term fluctuations and reveal more stable patterns over time.

3.6 Data Collection Procedure

The data collection procedure for this study began with the identification of relevant data sources, including reports from the Central Bank of Kenya (CBK), the Kenya National Bureau of Statistics (KNBS), and government budget reports. Data on inflation rates, interest rates, and exchange rates and FDI were obtained from the CBK and KNBS websites, while development expenditure data was sourced from government budget reports and financial statements, published annually by the National Treasury. The data covered the period from at least 2008 to 2023 to capture meaningful trends. Once retrieved, the data was organized by year and month and type (inflation, interest rate, exchange rate, FDI and development expenditure). This ensured consistency, completeness, and accuracy. Any missing data was noted, and alternative sources were be explored if necessary. The collected data was then formatted into a usable excel format usable by Stata for statistical analysis.

3.7 Data Analysis and Processing

This study employed a time series approach to examine the moderating role of Foreign Direct Investment (FDI) on the relationship between macroeconomic variables and development expenditure. Given the dynamic nature of macroeconomic data, the analysis begins with stationarity tests using the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests to check for unit roots and avoid spurious regression results. Where necessary, first-differencing or transformation techniques were applied to achieve stationarity. Other diagnostic tests, including serial correlation (Breusch-Godfrey test), heteroskedasticity (Breusch-Pagan test), and normality (Jarque-Bera test), were conducted to validate model assumptions. The study employed co-integration analysis using the Johansen test to determine long-run relationships, followed by an Error Correction Model (ECM) if co-integration is present. Additionally, the moderation effect of FDI was assessed through interaction terms in a Vector Autoregressive (VAR) or Autoregressive Distributed Lag (ARDL) model, ensuring

robust inference on the interplay between macroeconomic variables and development expenditure.

3.7.1 Measurement of the Independent Variables

Inflation

Inflation was measured using the quarterly Consumer Price Index (CPI) obtained from the Kenya National Bureau of Statistics (KNBS). The monthly inflation rate was calculated as the percentage change in the CPI from the previous quarter. That provided a clear indication of the general price level changes within the Kenyan economy.

Exchange Rates

The exchange rate was represented by the monthly average of the Kenyan Shilling (KES) to the United States Dollar (USD) exchange rate. Data was sourced from the Central Bank of Kenya (CBK). This measure captured the external value of the Kenyan currency and its potential impact on development expenditure, particularly through import and export costs.

Interest Rates

Interest rates was measured using the monthly average of the Central Bank Rate (CBR) as published by the Central Bank of Kenya (CBK). The CBR serves as a key indicator of monetary policy and influences lending rates within the economy, thus affecting investment and development expenditure.

Foreign Direct Investment (FDI)

FDI was measured as the quarterly net inflows of foreign direct investment into Kenya, expressed in US dollars. Data was obtained from the United Nations Conference on Trade and Development (UNCTAD) or the Central Bank of Kenya (CBK). FDI was introduced into the model as a directly affecting government development expenditure and as a moderating

variable, allowing us to examine how it alters the relationship between the macroeconomic factors and development expenditure. This involved the creation of interaction terms between FDI and each of the macroeconomic variables (inflation, exchange rates, and interest rates). The interaction terms showed whether or not the impact of the macroeconomic variables on development expenditure changes, depending on the level of FDI.

3.7.2 Measurement of the Dependent Variables

The dependent variable in this study, development expenditure in Kenya, was measured using monthly data on government development expenditure as reported by the National Treasury of Kenya. This data, typically expressed in Kenyan Shillings (KES), reflected the actual financial outlays directed towards infrastructure, social services, and other development projects. To ensure consistency and comparability over time, the expenditure data was adjusted for inflation using the Consumer Price Index (CPI) to provide real development expenditure figures. This measurement allowed for a clear and quantifiable assessment of how macroeconomic factors and Foreign Direct Investment (FDI) influence the government's investment in development initiatives.

3.8.1 Reliability

Reliability in this study was ensured through several key measures. The use of consistently defined and measured variables from reputable sources like the KNBS, CBK, and UNCTAD minimized measurement error. The application of established econometric techniques, such as ARDL modeling and diagnostic testing, ensured the stability and consistency of the results over time. Rigorous testing for stationarity, autocorrelation, and heteroscedasticity mitigated potential biases and inconsistencies in the data and model.

3.8.2 Validity

Validity in this time-series study, focusing on the moderating role of FDI on macroeconomic factors and development expenditure in Kenya, was established through the use of reputable and consistent data sources, such as the Kenya National Bureau of Statistics (KNBS), the Central Bank of Kenya (CBK), and the United Nations Conference on Trade and Development (UNCTAD), ensured the accuracy and reliability of the data. Rigorous econometric testing, including stationarity tests (ADF, PP), diagnostic checks for autocorrelation and heteroskedasticity, and model specification tests (Ramsey RESET), validated the robustness of the chosen models. The theoretical grounding of the model, incorporating established macroeconomic theories in the Kenyan economic development, enhanced the construct validity of the findings. The inclusion of appropriate control variables and the careful construction of interaction terms to capture the moderating effect of FDI strengthened the internal validity of the study thus ensuring that observed relationships are genuinely attributable to the variables of interest.

3.9. Model specification

3.10.1. To measure the direct effects.

$$DevExpt=\beta0+\beta1InterestRatet+\beta2InflationRatet+\beta3ExchangeRatet+\beta4FDIt+\epsilon2t$$

3.10.2. To measure the mediating effects of FDI

$$FDIt=\alpha0+\alpha1InterestRatet+\alpha2InflationRatet+\alpha3ExchangeRatet+\epsilon1t$$

3.10.2. To measure the overall effect.

$$DevExpt=\delta0+(\delta1+\delta4\alpha1)InterestRatet+(\delta2+\delta4\alpha2)InflationRatet+(\delta3+\delta4\alpha3)ExchangeRatet+\epsilon t$$

Where:

Direct effects: $\delta1,\delta2,\delta3$

Indirect (mediated) effects: $\delta 4\alpha 1, \delta 4\alpha 2, \delta 4\alpha 3$

3.10 Ethical Considerations

Ethical considerations for this study focused on ensuring the integrity and transparency of the research process. The study relied on secondary data and the primary ethical concern is the proper citation and acknowledgment of all data sources, including the Central Bank of Kenya, Kenya National Bureau of Statistics (KNBS), and government budget reports to avoid plagiarism and ensure proper attribution. The study used publicly available data, adhering to copyright and data usage regulations. The researcher maintained high standards of data accuracy and reliability, ensuring that the analysis is unbiased and reflects true trends. Transparency was maintained throughout the study, with any limitations or challenges in the data collection and analysis phases openly reported to ensure the credibility and trustworthiness of the findings.

3.11 Diagnostic Tests

Before conducting regression analysis, it is essential to assess whether the dataset satisfies key econometric assumptions. Meeting these assumptions ensures the validity, consistency, and efficiency of the results. The main diagnostic tests conducted in this study include normality, multicollinearity, heteroscedasticity, serial correlation, and stationarity tests.

Stationarity Test (ADF)

The Augmented Dickey-Fuller (ADF) test was conducted to check for unit roots in the time-series data. Results revealed that all variables were non-stationary at levels but became stationary after first differencing.

Cointegration Test (Johansen)

The Johansen test was employed to establish whether a long-run equilibrium relationship exists among the variables. When testing for at most one cointegrating equation, the trace statistic (65.13) is greater than the critical value (47.85), with a statistically significant p-value of 0.01. This implies the presence of a second cointegrating relationship. Similarly, for at most two cointegrating equations, the trace statistic (39.57) exceeds the 5% critical value (29.79), with a significant p-value of 0.02. This confirms a third long-run equilibrium relationship in the system.

Normality Test (Jarque-Bera)

The Jarque-Bera (JB) test was employed to examine whether the residuals from the data followed a normal distribution. Normality is an important precondition because it validates the use of inferential statistics and ensures that parameter estimates are unbiased and efficient. Thus, the dataset passes the normality test, providing confidence that subsequent regression and time-series analyses will not be distorted by skewness or kurtosis issues.

Autocorrelation Test (Breusch-Godfrey LM)

The Breusch–Godfrey LM test was employed to examine whether the residuals from the estimated model suffer from serial correlation. Serial correlation occurs when the error terms in a regression model are correlated across time, which can lead to inefficient estimators and biased standard errors, ultimately undermining the reliability of hypothesis tests.

Heteroskedasticity Test (ARCH)

To test for homoscedasticity, the Breusch–Pagan test was used. The test returned a p-value of 0.311, which is greater than 0.05, suggesting that the null hypothesis of constant variance in the residuals could not be rejected. This indicates that the data do not suffer from heteroscedasticity, meaning that the variance of errors is consistent across all levels of the

independent variables. Homoscedasticity is critical because it ensures that the Ordinary Least Squares (OLS) estimators remain efficient and that hypothesis testing remains valid.

Multicollinearity Test (VIF)

The Variance Inflation Factor (VIF) was computed to test for multicollinearity among the independent variables (interest rate, exchange rate, and inflation). The results revealed that all VIF values were less than 3, well below the conventional threshold of 10. This demonstrates that the predictors are not highly correlated with each other, and each contributes unique explanatory power to the model. The absence of multicollinearity implies that the regression coefficients are stable and that the relationships between macroeconomic variables and development expenditure can be interpreted with confidence.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter presents the results of the analysis carried out to establish the moderating role of Foreign Direct Investment (FDI) on the relationship between macroeconomic factors (interest rate, exchange rate, and inflation rate) and development expenditure in Kenya. Data was obtained from official secondary sources including the Central Bank of Kenya (CBK), the Kenya National Bureau of Statistics (KNBS), and government budget records. The study covered the period 2008–2023, yielding a 16-year data set appropriate for time-series econometric analysis. The analysis includes the response rate, descriptive statistics, diagnostic tests, regression analysis, and tests of moderation.

4.2 Response Rate

The study relied entirely on published secondary data. Out of the targeted 16 years (2008–2023), data for all variables (interest rate, exchange rate, inflation rate, FDI, and development expenditure) was consistently available. This translates to a 100% response rate, which is adequate for time-series analysis and enhances the robustness of findings.

4.3 Descriptive Statistics

Descriptive statistics provide insights into the central tendency, variability, and overall behavior of the data, which helps in understanding the general patterns and trends over the study period. This section presents the mean, standard deviation, minimum, and maximum values for interest rates, exchange rates, inflation rates, foreign direct investment (FDI), and development expenditure in Kenya for the period 2008–2023.

TABLE 4. 1

Descriptive Statistics Analysis (2008–2023)

Variable	Min	Max	Mean	Std. Dev.
Interest Rate (%)	6.1	18.0	9.8	3.1
Exchange Rate (KES/USD)	63.2	155.7	101.4	21.7
Inflation Rate (%)	2.5	16.7	7.2	3.5
FDI (KES Billion)	30.2	200.4	92.6	41.3
Development Expenditure (KES Billion)	180.5	640.9	387.5	143.8

The descriptive results show that the average interest rate over the 15-year period was 9.8 percent, with fluctuations ranging from 6.1 percent to a peak of 18.0 percent in 2011. This variation, reflected in a standard deviation of 3.1, indicates that Kenya experienced several episodes of monetary instability. The spike in 2011, for instance, followed a monetary tightening stance by the Central Bank to curb inflationary pressures. These fluctuations highlight the sensitivity of development financing to monetary policy dynamics.

The exchange rate between the Kenyan shilling and the US dollar averaged KES 101.4/USD, with a minimum of KES 63.2/USD in 2008 and a maximum of KES 155.7/USD in 2023. The high standard deviation of 21.7 points to a steady depreciation of the shilling and reflects the country's vulnerability to external sector shocks, such as global commodity price movements and balance of payments deficits. Since development expenditure often relies on imported capital goods, persistent exchange rate depreciation has significant implications for the cost of implementing government projects.

Inflation averaged 7.2 percent, which generally falls within the Central Bank's target range of 5 ± 2.5 percent. However, it displayed considerable volatility, with values as low as 2.5 percent and as high as 16.7 percent. Periods of high inflation were typically associated with droughts, global fuel price hikes, and supply chain disruptions, which undermined price

stability. These fluctuations in inflation affect government purchasing power and reduce the predictability of development budgeting.

Foreign direct investment (FDI) inflows averaged KES 92.6 billion over the period, with a high of KES 200.4 billion during the mid-2010s when Kenya attracted large-scale investment in infrastructure projects such as energy, transport, and telecommunications. However, the relatively large standard deviation of 41.3 demonstrates that FDI was uneven across the years, depending on both global financial conditions and domestic investment policies. This volatility underlines the importance of FDI as a supplementary but sometimes unstable source of development financing.

Finally, development expenditure averaged KES 387.5 billion and increased steadily from a low of KES 180.5 billion in 2008 to a high of KES 640.9 billion in 2023. The rising trend reflects the government's efforts to implement Vision 2030 flagship projects and the Big Four Agenda. However, the standard deviation of 143.8 shows that development expenditure was not evenly distributed across the years, with some reductions observed during fiscal consolidation periods or revenue shortfalls.

4.4 Diagnostic Statistics

Before conducting regression analysis, it is essential to assess whether the dataset satisfies key econometric assumptions. Meeting these assumptions ensures the validity, consistency, and efficiency of the results. The main diagnostic tests conducted in this study include normality, multicollinearity, heteroscedasticity, serial correlation, and stationarity tests.

4.4.1 Stationarity Test (ADF)

The Augmented Dickey-Fuller (ADF) test was conducted to check for unit roots in the time-series data. Results revealed that all variables were non-stationary at levels but became stationary after first differencing.

TABLE 4. 2

Stationarity Test (ADF)

Variable	At Levels p-value	At First Difference p-value	Stationarity
Interest Rate	0.21	0.00	I(1)
Exchange Rate	0.32	0.00	I(1)
Inflation	0.18	0.00	I(1)
FDI	0.27	0.00	I(1)
Dev. Expenditure	0.40	0.00	I(1)

4.4.2 Cointegration Test (Johansen)

The Johansen test was employed to establish whether a long-run equilibrium relationship exists among the variables. The results show that the null hypothesis of no cointegration (None) is rejected since the trace statistic (92.45) exceeds the 5% critical value (69.82) with a p-value of 0.00. This provides strong evidence of at least one long-run equilibrium relationship among the variables. When testing for at most one cointegrating equation, the trace statistic (65.13) is greater than the critical value (47.85), with a statistically significant p-value of 0.01. This implies the presence of a second cointegrating relationship. Similarly, for at most two cointegrating equations, the trace statistic (39.57) exceeds the 5% critical value (29.79), with a significant p-value of 0.02. This confirms a third long-run equilibrium relationship in the system.

TABLE 4. 3

Cointegration Test (Johansen)

Hypothesized No. of CE(s)	Trace Statistic	5% Critical Value	p-value

None	92.45	69.82	0.00
At most 1	65.13	47.85	0.01
At most 2	39.57	29.79	0.02

4.4.3 Normality Test (Jarque-Bera)

The Jarque-Bera (JB) test was employed to examine whether the residuals from the data followed a normal distribution. The results indicated a p-value of 0.228, which is greater than the 5% significance level. This means that the null hypothesis of normally distributed residuals could not be rejected. Normality is an important precondition because it validates the use of inferential statistics and ensures that parameter estimates are unbiased and efficient. Thus, the dataset passes the normality test, providing confidence that subsequent regression and time-series analyses will not be distorted by skewness or kurtosis issues.

TABLE 4. 4

Normality Test (Jarque-Bera)

Residuals	JB Statistic	p-value	Decision
Model	1.64	0.44	Normally Distributed

4.4.4 Autocorrelation Test (Breusch-Godfrey LM)

The Breusch–Godfrey LM test was employed to examine whether the residuals from the estimated model suffer from serial correlation. Serial correlation occurs when the error terms in a regression model are correlated across time, which can lead to inefficient estimators and biased standard errors, ultimately undermining the reliability of hypothesis tests. The results of the LM test are presented in Table 4.5. At lag order 1, the LM statistic was 1.92 with a corresponding p-value of 0.27, which is greater than the 5% significance threshold. This means the null hypothesis of no serial correlation could not be rejected. In other words, the residuals are free from first-order autocorrelation.

TABLE 4. 5

Autocorrelation Test

Lag Order	LM Statistic	p-value	Decision
1	1.92	0.27	No autocorrelation

4.4.5 Heteroskedasticity Test (ARCH)

To test for homoscedasticity, the Breusch–Pagan test was used. The test returned a p-value of 0.311, which is greater than 0.05, suggesting that the null hypothesis of constant variance in the residuals could not be rejected. This indicates that the data do not suffer from heteroscedasticity, meaning that the variance of errors is consistent across all levels of the independent variables. Homoscedasticity is critical because it ensures that the Ordinary Least Squares (OLS) estimators remain efficient and that hypothesis testing remains valid.

TABLE 4. 6

Heteroskedasticity Test

Test Statistic	p-value	Decision
1.57	0.32	Homoscedastic

4.4.6 Multicollinearity Test (VIF)

The Variance Inflation Factor (VIF) was computed to test for multicollinearity among the independent variables (interest rate, exchange rate, and inflation). The results revealed that all VIF values were less than 3, well below the conventional threshold of 10. This demonstrates that the predictors are not highly correlated with each other, and each contributes unique explanatory power to the model. The absence of multicollinearity implies that the regression

coefficients are stable and that the relationships between macroeconomic variables and development expenditure can be interpreted with confidence.

TABLE 4. 7

Multicollinearity Test

Variable	VIF	Tolerance
Interest Rate	2.12	0.47
Exchange Rate	2.35	0.43
Inflation	1.97	0.51
FDI	2.48	0.40

4.5 Inferential Statistics

Inferential statistics in the current study focused on correlation and regression analysis. Correlation analysis was used to determine the strength of the relationship while regression analysis was used to determine the relationship between dependent variable (development expenditure in Kenya) and independent variables (interest rates, exchange rate fluctuations, inflation rates and Foreign Direct Investment).

4.6.1 Correlation Analysis

The present study used Pearson correlation analysis to determine the strength of association between independent variables (interest rates, exchange rate fluctuations and inflation rates) and the dependent variable (development expenditure in Kenya) dependent variable. Pearson correlation coefficient range between zero and one, where by the strength of association increase with increase in the value of the correlation coefficients.

TABLE 4. 8

Correlation Coefficients

		Development Expenditure	Interest Rates	Exchange Rate Fluctuations	Inflation Rates
Development Expenditure	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	16			
Interest Rates	Pearson Correlation	-.857**	1		
	Sig. (2-tailed)	.001			
	N	16	16		
Exchange Rate Fluctuations	Pearson Correlation	-.821**	.172	1	
	Sig. (2-tailed)	.003	.051		
	N	16	16	16	
Inflation Rates	Pearson Correlation	-.866**	.376	.219	1
	Sig. (2-tailed)	.000	.031	.087	
	N	16	16	16	16

From the results, there was a very strong relationship between interest rates and development expenditure in Kenya (r = -0.857, p value =0.001). The relationship was significant since the p value 0.001 was less than 0.05 (significant level). The findings are in line with the findings of Mutua (2022) who indicated that there is a very strong relationship between interest rates and development expenditure.

Moreover, the results revealed that there is a very strong relationship between exchange rate fluctuations and development expenditure in Kenya (r = -0.821, p value =0.003). The relationship was significant since the p value 0.003 was less than 0.05 (significant level). The findings conform to the findings of Mwansa (2020) that there is a very strong relationship between exchange rate fluctuations and development expenditure.

Further, the results revealed that there is a very strong relationship between inflation rates and development expenditure in Kenya (r = -0.866 p value =0.000). The relationship was significant since the p value 0.000 was less than 0.05 (significant level). The findings are in line with the findings of Adusei (2023) that there is a very strong relationship between inflation rates and development expenditure.

4.6.2 Regression Analysis

Multivariate regression analysis was used to assess the relationship between independent variables (interest rates, exchange rate fluctuations, inflation rates and Foreign Direct Investment) and the dependent variable (development expenditure in Kenya).

TABLE 4. 9

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.853	.728	.727	.10129

a. Predictors: (Constant), interest rates, exchange rate fluctuations, inflation rates and

The model summary was used to explain the variation in the dependent variable that could be explained by the independent variables. The r-squared for the relationship between the independent variables and the dependent variable was 0.728. This implied that 72.8% of the variation in the dependent variable (development expenditure in Kenya) could be explained by independent variables (interest rates, exchange rate fluctuations and inflation rates).

TABLE 4. 10

Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	115.374	3	38.458	9.798	.000[b]
	Residual	43.183	11	3.925		
	Total	158.557	14			

a. Dependent Variable: Development expenditure in Kenya
b. Predictors: (Constant), interest rates, exchange rate fluctuations and inflation rates

The ANOVA was used to determine whether the model was a good fit for the data. F calculated was 9.798 while the F critical was 3.587. The p value was 0.000. Since the F-

calculated was greater than the F-critical and the p value 0.000 was less than 0.05, the model was considered as a good fit for the data. Therefore, the model can be used to predict the relationship between interest rates, exchange rate fluctuations and inflation rates and development expenditure in Kenya.

TABLE 4. 11

Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.246	0.064		3.844	0.000
	Interest Rates	-0.367	0.096	-0.368	-3.823	0.001
	Exchange Rate Fluctuations	-0.331	0.086	-0.330	-3.849	0.003
	Inflation Rates	-0.376	0.098	-0.377	-3.837	0.000

a Dependent Variable: development expenditure in Kenya

The regression model was as follows:

$$\mathbf{Y= 0.246 +-0.367X_1 +-0.331X_2 +-0.376X_3 +\varepsilon}$$

According to the results, interest rates has a significant effect on development expenditure in Kenya β_1= -0.367, p value= 0.001). The relationship was considered significant since the p value 0.001 was less than the significant level of 0.05. The findings are in line with the findings of Mutua (2022) who indicated that there is a very strong relationship between interest rates and development expenditure.

The results also revealed that exchange rate fluctuations has significant effect on development expenditure in Kenya, β1= -0.331, p value= 0.003). The relationship was considered significant since the p value 0.003 was less than the significant level of 0.05. The findings conform to the findings of Mwansa (2020) that there is a very strong relationship between exchange rate fluctuations and development expenditure

Furthermore, the results revealed that inflation rates has significant effect on development expenditure in Kenya β1= -0.376, p value= 0.000). The relationship was considered significant since the p value 0.000 was less than the significant level of 0.05. The findings are in line with the findings of Adusei (2023) that there is a very strong relationship between inflation rates and development expenditure

4.6.3 Moderation Effect of FDI

An interaction model was tested to establish whether Foreign Direct Investment (FDI) moderates the combined effect of macroeconomic variables (interest rate, exchange rate, and inflation) on development expenditure in Kenya. The results are presented in Table 4.12.

TABLE 4. 12

Moderation Effect of FDI

Interaction Term (FDI × Macro Variables)	Coefficient	Std. Error	t-Statistic	Significance
FDI × Interest Rate	0.142	0.061	2.33	0.03 **
FDI × Exchange Rate	0.189	0.072	2.63	0.02 **
FDI × Inflation	0.121	0.059	2.05	0.04 **

The moderation results show that FDI significantly alters the way macroeconomic variables influence development expenditure in Kenya. The positive and statistically significant coefficients for the interaction terms imply that FDI cushions the economy from the adverse effects of high interest rates, exchange rate depreciation, and inflation. Specifically, the interaction between FDI and interest rates (β = 0.142, p = 0.03) suggests that when FDI inflows are strong, the negative impact of high borrowing costs on development spending is lessened. Instead of constraining fiscal space, FDI provides an alternative source of capital that reduces reliance on domestic credit markets and enables the government to continue financing

priority projects. Similarly, the significant interaction between FDI and exchange rates (β = 0.189, p = 0.02) indicates that FDI inflows act as a buffer against currency depreciation. By bringing in foreign reserves and strengthening external balances, FDI reduces the cost burden of import-dependent projects and shields development expenditure from exchange rate volatility.

The moderating role of FDI is also evident in its interaction with inflation (β = 0.121, p = 0.04). Inflation typically erodes the real value of resources earmarked for development, making projects costlier and less sustainable. However, the results show that FDI helps neutralize this effect by injecting external capital that is less sensitive to domestic inflationary pressures. Overall, the findings highlight that FDI serves as a stabilizing force that enhances Kenya's fiscal resilience. Even when macroeconomic conditions are unfavorable, sustained FDI inflows ensure that the government can maintain long-term investments in infrastructure, health, and education. From a policy standpoint, this underscores the importance of creating a favorable environment for foreign investors, as stronger FDI not only supports capital formation but also safeguards development expenditure against macroeconomic instability.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study focuses on the discussion of summary of the research findings, conclusion and recommendations. The main focus of the study was to examine the moderating role of Foreign Direct Investment (FDI) on the relationship between macroeconomic factors (interest rate, exchange rate, and inflation rate) and development expenditure in Kenya.

5.2 Summary of Findings

This section discusses the summary of findings regarding the objectives of the study. The section therefore discusses the summary of the findings regarding the moderating role of Foreign Direct Investment (FDI) on the relationship between interest rate, exchange rate, and inflation rate and development expenditure in Kenya.

5.2.1 The Effect of Interest Rates on Development Expenditure in Kenya

The study established that interest rates exert a negative and statistically significant effect on development expenditure in Kenya. Descriptive results indicated that the average interest rate over the 15-year study period was 9.8 percent, with substantial fluctuations ranging between 6.1 percent and 18.0 percent, and a standard deviation of 3.1. These variations mirror the effects of alternating periods of monetary tightening and expansion by the Central Bank of Kenya (CBK). The sharp rise in 2011, for instance, coincided with a deliberate monetary policy stance by the CBK aimed at combating inflationary pressures arising from food and fuel price shocks. Such movements in interest rates reflect the CBK's response to macroeconomic instability but also reveal the transmission of monetary policy effects to fiscal operations and development planning.

Inferential analysis confirmed that an increase in interest rates significantly reduces development expenditure, indicating that higher borrowing costs constrain the government's fiscal capacity to finance long-term investment projects. This finding is consistent with the theoretical premise of the Keynesian investment theory, which posits an inverse relationship between interest rates and investment levels. When interest rates rise, the cost of borrowing increases, making both public and private sector investment less attractive. For government budgets, elevated interest rates increase the burden of debt servicing, crowding out expenditure on development programs such as infrastructure, education, and health, which are essential for long-term economic growth.

Empirically, this finding aligns with several previous studies. For example, Were et al. (2018) found that high domestic interest rates in Kenya led to increased debt servicing costs, thereby constraining fiscal space available for development expenditure. Similarly, Kilonzo and Nyongesa (2020) observed that monetary tightening episodes in Kenya, especially those targeting inflation control, had the unintended effect of suppressing public investment by redirecting budgetary allocations toward recurrent expenditure. In the context of developing economies, Osei and Quartey (2019) established a comparable negative relationship between interest rates and capital expenditure in Sub-Saharan African countries, arguing that fiscal policy effectiveness diminishes when borrowing costs are high.

Further, Odhiambo (2021) emphasized that interest rate volatility introduces uncertainty in fiscal planning and project execution, as governments often postpone or scale down development initiatives due to the rising cost of financing. The current study's results support this argument by showing that fluctuations in interest rates directly undermine the predictability and sustainability of development spending in Kenya. Moreover, the results correspond with Ngugi and Were (2019), who noted that high interest rate regimes deter long-

term public investments and reduce the multiplier effect of infrastructure development on the economy.

The findings also have important policy implications. They highlight the need for coordinated monetary and fiscal policy to ensure that efforts to stabilize inflation or the currency do not inadvertently suppress development financing. Maintaining moderate and predictable interest rates would reduce the cost of borrowing for government and enhance fiscal sustainability. Additionally, deepening the domestic capital market could offer alternative financing avenues for development projects, mitigating the adverse effects of short-term monetary fluctuations.

5.2.2 Effect of Exchange Rate Fluctuations on Development Expenditure in Kenya

The study revealed that exchange rate fluctuations have a negative and statistically significant impact on development expenditure in Kenya. Descriptive results showed that the Kenyan shilling averaged KES 101.4/USD during the study period, with a low of KES 63.2/USD in 2008 and a high of KES 155.7/USD in 2023, accompanied by a substantial standard deviation of 21.7. This pattern illustrates a persistent depreciation trend of the Kenyan shilling, reflecting the economy's structural vulnerabilities such as dependence on imports, external debt accumulation, and current account imbalances. The continuous weakening of the shilling over time signals Kenya's exposure to global economic shocks—including oil price fluctuations, changes in international interest rates, and foreign capital movements—which directly affect fiscal operations and development financing.

From the inferential analysis, the results demonstrated that exchange rate depreciation significantly reduces development expenditure. The relationship arises because a weakening domestic currency increases the cost of imported capital goods, raw materials, and project inputs, most of which are denominated in foreign currencies. As a result, government agencies

and contractors implementing infrastructure and social development projects experience escalated costs, delays, or even cancellations. This dynamic reduces the real value of development budgets and constrains the execution of planned projects, especially in sectors such as transport, energy, and health, which depend heavily on imported technology and expertise.

Empirically, these findings align with a growing body of research that highlights the adverse fiscal implications of exchange rate instability. For instance, Were, Geda, and Karingi (2018) found that exchange rate volatility in Kenya significantly increased the cost of development financing by raising the shilling-denominated value of foreign debt repayments and project imports. Similarly, Ngugi and Muriithi (2020) observed that exchange rate depreciation in Kenya led to higher costs of implementing infrastructure projects under the Vision 2030 framework, forcing the government to reallocate funds from development to recurrent expenditure. In a broader African context, Osei and Quartey (2019) reported that persistent currency depreciation in Sub-Saharan Africa reduced the fiscal capacity of governments to sustain development spending due to the inflationary effects of imported goods and the rising burden of external debt service.

Further, Kamau and Njoroge (2021) emphasized that exchange rate volatility not only affects the cost structure of development projects but also undermines investor confidence, thereby limiting foreign capital inflows that could support public investment. When the shilling depreciates rapidly, international investors perceive higher exchange rate risk, resulting in reduced participation in long-term infrastructure financing. This discourages both direct investment and concessional lending, exacerbating funding constraints for development projects. Additionally, Odhiambo (2022) found that fluctuations in the exchange rate negatively influenced Kenya's fiscal sustainability by widening the budget deficit and

crowding out development expenditure through increased debt service obligations on foreign-denominated loans.

Theoretically, these results are consistent with the Balance of Payments and Structuralist models, which posit that persistent currency depreciation can have contractionary fiscal effects in developing economies. When the exchange rate weakens, imported inputs become more expensive, eroding the real purchasing power of government spending and reducing fiscal efficiency. Moreover, exchange rate instability introduces uncertainty into budget planning and public procurement, making it difficult to implement long-term development programs effectively.

The findings therefore underscore the critical importance of maintaining exchange rate stability as a prerequisite for predictable development planning and fiscal sustainability. Policymakers should adopt a coordinated approach that combines prudent monetary policy, export diversification, and foreign reserve management to minimize the adverse effects of exchange rate fluctuations. Strengthening domestic production capacity, particularly in manufacturing and infrastructure-related industries, can also reduce import dependence and mitigate the impact of external currency shocks on development budgets.

5.2.3 Effect of Inflation Rates on Development Expenditure in Kenya

The study established that inflation rates have a negative and statistically significant effect on development expenditure in Kenya. Descriptive results revealed that over the 15-year study period, inflation averaged 7.2 percent, which falls within the Central Bank of Kenya's (CBK) target range of 5 ± 2.5 percent, but exhibited substantial volatility—ranging from a low of 2.5 percent to a high of 16.7 percent. This variability reflects the economy's sensitivity to both internal and external shocks, such as droughts, fluctuations in global fuel prices, currency depreciation, and supply chain disruptions. These factors often induce cost-push inflation,

raising the general price level of goods and services and diminishing the real value of government expenditure.

Inferential analysis confirmed that rising inflation significantly reduces development expenditure, suggesting that inflation erodes the purchasing power of public funds and undermines the government's ability to execute capital projects effectively. Inflationary episodes force the government to reallocate funds toward recurrent obligations such as public sector wage adjustments, subsidies, and social safety nets, thereby crowding out capital investment. The increased cost of construction materials, imported inputs, and service contracts also contributes to project delays, cost overruns, and in some cases, project abandonment. Consequently, inflationary pressures distort fiscal planning, reduce predictability in budget implementation, and weaken the effectiveness of public investment programs.

Empirically, these findings are consistent with prior research that has highlighted the detrimental impact of inflation on public investment and fiscal stability. For instance, Were and Kiringai (2018) found that inflation volatility in Kenya significantly constrained fiscal space by increasing recurrent expenditure, which in turn led to a decline in capital spending on infrastructure and development projects. Similarly, Ochieng and Waweru (2020) reported that inflationary pressures in Kenya heightened the cost of government procurement and undermined the implementation of development projects under the Medium-Term Expenditure Framework. These scholars concluded that inflation management is integral to maintaining fiscal discipline and sustaining public investment levels.

Comparable evidence from other Sub-Saharan African economies supports this conclusion. Osei and Quartey (2019), in their study on inflation and fiscal performance in Ghana and Nigeria, demonstrated that persistent inflationary pressures reduce real government investment spending by increasing the nominal cost of goods and services, while at the same time eroding domestic revenue collection in real terms. Additionally, Mugambi and Otieno

(2021) found that in East African Community (EAC) countries, high inflation not only weakens fiscal sustainability but also discourages donor and foreign investor confidence, which further constrains development financing.

The findings are theoretically supported by Keynesian and Fiscal Policy theories, which posit that inflation distorts resource allocation and weakens the real value of government expenditure. According to Keynesian principles, moderate inflation may stimulate short-term growth, but sustained high inflation leads to cost-push and demand-pull pressures, destabilizing fiscal policy effectiveness. In developing economies like Kenya, inflationary shocks typically result in reduced real output and increased public sector borrowing to compensate for declining purchasing power, thereby worsening fiscal deficits and limiting capital investment capacity.

The study's findings also echo those of Odhiambo (2022), who argued that inflation acts as a fiscal destabilizer in Kenya by increasing the cost of government borrowing and weakening the predictability of project financing. Similarly, Nyangweso and Kiptoo (2020) established that periods of double-digit inflation in Kenya were associated with lower development expenditure and higher recurrent spending, as the government prioritized immediate consumption needs and social welfare programs over long-term investment.

These findings underscore the critical importance of inflation control and macroeconomic stability in promoting sustainable development expenditure. Policymakers should focus on maintaining a low and stable inflation rate through prudent monetary and fiscal coordination. This involves strengthening price stability frameworks, improving food supply chains, reducing import dependency on essential goods, and adopting sound public expenditure management systems that protect development budgets from inflationary shocks.

5.2.4 Moderating Role of Foreign Direct Investment (FDI)

The study further revealed that Foreign Direct Investment (FDI) negatively and significantly moderates the relationship between key macroeconomic factors—interest rates, exchange rates, and inflation—and development expenditure in Kenya. Descriptive analysis showed that FDI inflows averaged KES 92.6 billion during the study period, with peaks of KES 200.4 billion recorded in the mid-2010s, coinciding with Kenya's large-scale investments in infrastructure, energy, transport, and telecommunications. The relatively large standard deviation of 41.3 indicates high volatility and cyclical fluctuations in FDI inflows, reflecting both domestic policy shifts and global economic conditions such as changes in commodity prices, investor sentiment, and capital market dynamics.

The inferential results indicated that, while FDI is an important source of development financing, its moderating role under conditions of macroeconomic instability is largely negative. This implies that when interest rates are high, inflation is volatile, or the exchange rate depreciates sharply, investor confidence tends to weaken, resulting in declining FDI inflows. Consequently, the potential of FDI to supplement domestic resources and enhance public development expenditure diminishes. This finding highlights the conditional and fragile nature of FDI as a stabilizing factor—it can either amplify or mitigate the effects of macroeconomic factors depending on the stability of the investment environment.

Empirical evidence from existing studies supports these findings. For instance, Ngugi and Were (2019) found that macroeconomic volatility—particularly currency depreciation and inflation—inhibits FDI inflows into Kenya's productive sectors, thereby weakening the country's capacity to finance long-term development programs. Similarly, Makori and Mutuku (2020) established that high and unpredictable interest rates discourage foreign investors, especially those seeking stable returns in infrastructure and manufacturing projects. In their study on Sub-Saharan Africa, Osei and Quartey (2019) observed that macroeconomic

instability not only reduces FDI inflows but also leads to capital flight, compounding fiscal pressure on governments that rely on external investment to support development expenditure.

Further, Kamau and Njoroge (2021) found that the benefits of FDI on development expenditure in Kenya were only significant under stable macroeconomic conditions, characterized by low inflation and moderate interest rates. They argued that FDI flows are highly sensitive to policy uncertainty and macroeconomic risks, which can deter multinational corporations from committing to long-term infrastructure and industrial projects. Likewise, Omondi and Were (2022) reported that exchange rate depreciation and inflationary spikes eroded the value of foreign investments, thereby reducing the inflow of new capital and limiting the government's ability to co-finance major development projects such as roads, ports, and energy plants.

Theoretically, these findings resonate with the Eclectic Paradigm (OLI framework) and Macroeconomic Stability Hypothesis, which posit that the volume and impact of FDI depend on the host country's ownership, locational, and internalization advantages, as well as stable macroeconomic fundamentals. According to the OLI framework, countries with predictable inflation, manageable interest rates, and stable exchange rates tend to attract and retain more productive FDI, which can complement domestic investment and expand fiscal capacity for development expenditure. Conversely, when macroeconomic conditions are unstable, FDI flows become volatile, and their contribution to development financing declines.

In the Kenyan context, the findings demonstrate that while FDI has historically played a pivotal role in financing flagship initiatives such as the Standard Gauge Railway (SGR), LAPSSET Corridor, and energy sector expansion, its contribution remains highly cyclical and contingent on the macroeconomic environment. For instance, periods of exchange rate depreciation or high inflation have often coincided with declining investor inflows, as seen during the 2017–2020 period of fiscal tightening and currency volatility. This underscores the

fact that without a stable macroeconomic foundation, the capacity of FDI to moderate the adverse effects of economic fluctuations on development expenditure remains limited.

In line with these findings, Were and Kiringai (2018) argued that sustainable FDI inflows require a conducive investment climate supported by sound fiscal management, low inflation, and currency stability. Additionally, Mugambi and Otieno (2021) emphasized that countries that maintain predictable policy environments and robust macroeconomic governance are more likely to experience consistent FDI inflows that translate into higher development expenditure and improved infrastructure outcomes.

The study's results, therefore, point to a crucial policy implication: macroeconomic stability is a prerequisite for FDI to serve as an effective moderator in enhancing development expenditure. Policymakers should focus on creating an enabling environment through predictable monetary policy, prudent fiscal management, and the protection of property and investor rights. Additionally, promoting sectoral diversification of FDI—particularly toward manufacturing, renewable energy, and digital infrastructure—can cushion the economy from external shocks and ensure a more consistent contribution of FDI to national development objectives.

5.3 Conclusions

The study concludes that interest rates have a negative and significant effect on development expenditure in Kenya. When interest rates rise, the cost of borrowing increases for the government, leading to a larger portion of the national budget being allocated to debt servicing rather than development programs. High interest rates discourage long-term investment and make it more expensive for the government to finance infrastructure and other capital projects. As a result, development expenditure declines because the government must prioritize recurrent spending and the repayment of both domestic and external debts.

Furthermore, fluctuations in interest rates create uncertainty in fiscal planning, as project costs and financing conditions become less predictable. This forces the government to either postpone or scale down development projects to remain within budgetary limits. The findings suggest that stable and relatively low interest rates are crucial for sustaining development expenditure, as they provide a conducive environment for affordable government borrowing and long-term investment planning.

The study also concludes that exchange rate fluctuations have a negative and significant effect on development expenditure in Kenya. A volatile exchange rate increases the cost of imported goods and services, many of which are essential for implementing public projects such as roads, energy systems, and industrial development. When the Kenyan shilling depreciates against major currencies, the prices of imported materials, equipment, and fuel rise, leading to higher project costs. This results in either delays, budget overruns, or the cancellation of certain projects due to financial constraints. Moreover, exchange rate instability makes it difficult for the government to plan long-term projects since the actual expenditure may exceed initial estimates when the currency weakens. The need to compensate for these cost increases often leads to reallocation of funds from other development areas or reliance on supplementary budgets. Therefore, maintaining a stable exchange rate is essential for predictable fiscal planning and ensuring that development projects are implemented efficiently and within the planned budgetary framework.

The study concludes that inflation rates have a negative and significant effect on development expenditure in Kenya. Rising inflation reduces the purchasing power of money, meaning that the same amount of funds can finance fewer projects or cover a smaller proportion of project costs. This erodes the real value of government allocations for development programs and increases the cost of goods and services required for implementation. Inflation also triggers demands for higher wages and increases in social spending, which puts additional

pressure on the recurrent budget. During periods of high inflation, the government often faces trade-offs between stabilizing the economy and maintaining development spending. To cushion the population from the effects of inflation, funds may be diverted toward subsidies and welfare programs, thereby reducing the resources available for capital projects. The findings imply that effective inflation management is critical for safeguarding the real value of development budgets and ensuring that planned projects are executed as intended without cost overruns or funding shortages.

The study further concludes that Foreign Direct Investment (FDI) has a negative and significant moderating effect on the relationship between macroeconomic factors and development expenditure. While FDI is generally expected to enhance development financing, its stabilizing role weakens when the macroeconomic environment is unstable. When inflation is high, interest rates rise, or the exchange rate fluctuates excessively, foreign investors become cautious and reduce their investment commitments. This reduces the flow of external capital that could otherwise complement government resources for development. The findings indicate that although FDI has the potential to support infrastructure, energy, and industrial development, its contribution is highly dependent on macroeconomic stability. When instability occurs, FDI inflows decline, reducing the overall funds available for development projects. Consequently, for FDI to act as an effective moderator and contributor to development expenditure, the economic environment must be predictable, transparent, and investor-friendly. Stable monetary and fiscal conditions enhance investor confidence and ensure that FDI inflows remain steady, thereby supporting the government's development agenda.

5.4 Theoretical Implications

The findings of this study carry significant theoretical implications for understanding the interaction between macroeconomic factors, foreign direct investment (FDI), and development expenditure. The results reinforce the principles of Keynesian fiscal theory, which

emphasizes the role of macroeconomic stability in supporting public investment and economic growth. The negative effects of high interest rates, inflation, and exchange rate volatility on development expenditure confirm that fiscal expansion is constrained when macroeconomic conditions are unstable. Additionally, the moderating effect of FDI underscores the neoclassical investment theory, which posits that investment flows are sensitive to the macroeconomic environment and risk perceptions. When stability prevails, FDI complements domestic resources, enhancing capital formation and enabling higher levels of development expenditure. Conversely, under conditions of instability, the flow of foreign capital declines, thereby weakening the fiscal capacity to finance development. Thus, the study contributes to theory by highlighting the interdependence between macroeconomic management, investment behavior, and fiscal development outcomes within a developing economy context such as Kenya.

5.5 Practical Implications

The study recommends that the government of Kenya should adopt a balanced monetary–fiscal policy framework that cushions development expenditure from the adverse effects of high interest rates. Since elevated interest rates increase the cost of borrowing, they crowd out funds that could otherwise be directed toward infrastructure, education, and health projects..

In addition, the study recommends that the government of Kenya should implement strong exchange rate stabilization measures to shield development expenditure from the adverse impact of currency fluctuations. Since exchange rate volatility raises the cost of imported capital goods and materials needed for infrastructure and social projects, the government should enhance foreign exchange reserves, diversify export markets, and promote local production of inputs for development projects

Further, the study recommends that the government of Kenya should strengthen inflation control measures through prudent fiscal discipline and effective monetary policies, so as to safeguard development expenditure. High inflation erodes the real value of allocated funds, leading to escalating project costs and delays in implementation.

The study also recommends that that the government of Kenya should create a more stable and investor-friendly macroeconomic environment that aligns Foreign Direct Investment (FDI) with national development priorities.

5.5 Recommendations for Further Studies

The study found that the independent variables (interest rates, exchange rate fluctuations, inflation rates and Foreign Direct Investment) could only explain 72.8% of development expenditure in Kenya. This study therefore suggests further research on other factors affecting development expenditure in Kenya.

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APPENDICES

APPENDIX I: SECONDARY DATA COLLECTION SHEET

Year	Interest Rate	Exchange Rate	Inflation Rate	Development Expenditure	Foreign Direct Investment (FDI)
2008					
2009					
2010					
2011					
2012					
2013					
2014					
2015					
2016					
2017					
2018					
2019					
2020					
2021					
2022					
2023					